

SC-Database

Software version = 5.81 Data version = 4.62

Experiment list contains 583 experiments for
(no ligands specified)

Metal : Cu+

(no references specified)

(no experimental details specified)

e- HL Electron (442)
Electron;

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

Cu+ EMF non-aq 25°C 100% C I 1980APa (447) 1
E0(Cu(s)/Cu+)= -686mV

Medium: DMSO, 1 M NH4ClO4. E0 referred to E0(aq)=0 for the Ag(s)/Ag+ elect.

Cu+ vlt non-aq 25°C 100% U 1972FDc (448) 2
K(Cu+ + e=Cu(s))=5.51(0.326V)

Medium: DMSO containing 0.1 M Et4NClO4 or LiClO4; K in M units

Cu+ EMF NaNO3 25°C 2.00M U 1967PCa (449) 3
K=3.3, 195mV

K: CuBr2+e=Cu(s)+2Br

Cu+ EMF none 25°C 0.0 U 1953SUa (450) 4
K(CuN3(s)+e)=-0.52(-30.6 mV)

Cu+ oth none 25°C 0.0 U 1952LAb (451) 5
K(Cu+e=Cu(s))=8.80?(521 mV?)

From thermodynamic data. K(0.5Cu2O(s)+0.5H2O+e=Cu(s)+OH)=-6.04(-358 mV)

K(CuCl(s)+e=Cu(s)+Cl)=2.31(137 mV)

Cu+ EMF none 25°C 0.0 U T 1918NCa (452) 6
K=2.03(120.0 mV)

K:CuCl(s)+e=Cu(s)+Cl. At 15 C: K=2.21(126.3 mV), 35 C: 1.85(113.2 mV)

AsOS2--- H3L CAS 128115-83-3 (9037)
Dithioarsenite; Arsenodithioite;

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

Cu+ sol none 25°C 0.0 C 2000CHb (1043) 7
K(Cu+H2AsOS2)=19.82

Dissolution of CuS-Cu1.8S-Cu3AsS4 phase in HS- solutions, pH 3.5-10.

Ks(0.5As2S3(s)+0.5H2S(aq)+H2O=H+H2AsOS2)=-8.23.

BF4- HL (2497)
Tetrafluoroborate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	con	non-aq	25°C	100%	U		K1=1.0	1969YKa (1193)	8
Medium: MeCN									

Br-		HL		Bromide			CAS 10035-10-6	(19)	
Bromide;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	sol	NaClO4	25°C	5.00M	U		B(Cu2Br5)=15.68 B(Cu3Br7)=24.24	1990SGa (1884)	9
Cu+	sp	NaCl	25°C	0.50M	U	TI	K3=1.22	1990SMc (1885)	10
Data at I to 6.0 M and 5 - 45 C									
Cu+	ISE	non-aq	25°C	100%	U		B2=17.9	1988LEc (1886)	11
Medium: propylene carbonate, 0.1 M Et4NClO4. Kso=-15.8.									
Cu+	sol	none	25°C	0.0	C	I	K1=3.53 B2= 5.86 B3=6.43 B4=21.3	1987FLa (1887)	12
Extrapolated from data for 0.1-3.95 M KBr, using Pitzer theory.									
Cu+	ISE	non-aq	25°C	100%	U	IH	K1=6.97 B2=8.81	1987JPa (1888)	13
Medium: tetrahydrothiophene, 0.1M Bu4NBF4									
Cu+	ISE	non-aq	25°C	100%	C	H	K1=2.78 B2=3.88	1986AIb (1889)	14
Medium: DMSO, 0.1 M NH4ClO4. DH(K1)=10.2; DH(B2)= 30.2 kJ mol ⁻¹									
Cu+	ISE	non-aq	25°C	100%	C	H	K1=3.39 B2=7.21	1983ANa (1890)	15
Medium: Acetonitrile; DH(K1)=10.5, DH(K2)=16.7 kJ mol ⁻¹									
Cu+	ISE	non-aq	25°C	100%	C	H	K1=4.19 B2=7.94	1980ABd (1891)	16
Medium: DMSO, 1 M NH4ClO4; DH(K1)=-9.3, DH(K2)=2.1 kJ mol ⁻¹									
Cu+	sp	NaClO4	25°C	5.00M	U		B3=1.11	1980SFa (1892)	17
Cu+	ISE	NaClO4	25°C	5.00M	C		B2=6.28 B3=7.45 Kso=-8.89	1977ATa (1893)	18
Cu+	vlt	non-aq	25°C	100%	U		K1=5.0 B2=9.6	1972FDc (1894)	19
Medium: DMSO, 0.1 M Et4NClO4									
Cu+	ISE	non-aq	25°C	100%	U		K1=3.8 B2=7.7	1972HRa (1895)	20

Medium: MeCN, 0.1 M Et4NClO4. K(Et4N+L)=1.0. Cu-ISE

Cu+ ISE non-aq 25°C 100% U K1=3.5 B2=7.3 1971SKa (1896) 21
 Medium: MeCN, 0.1 M Et4NClO4. K(Et4N+L)=1.0. CuHg electrode

Cu+ ISE oth/un 25°C var U B3=6.14 1970BPe (1897) 22

Cu+ sol oth/un 20°C var U T Ks(CuL(s)+L=CuL2)=-0.05 1970TMb (1898) 23

Medium: KBr. Ks=-0.50(50 C)

Cu+ sol NaNO3 25°C 2.0M U Ks2=-2.42 K3=1.01 1967PCa (1899) 24

Cu+ sol none 25°C 0.0 U B2=5.92 K(CuBr(s)=Cu+Br)=-8.28 1938LAa (1900) 25

Additional method: Cu electrode. I=0 corr.

Cu+ sol oth/un 19°C var U I B2=5.04 K(CuBr(s)=Cu+Br)=-7.38 K(CuBr(s)+Br=CuBr2)=-2.34 1902BSa (1901) 26

Also with Cu electrode. Medium: KBr

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

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

Cu+ cal NaCl 25°C 1.0M C H DH(B4)=-237.9 kJ mol-1, DS(B4)=-190.3 J mol-1 K-1. 1996SMc (2638) 27

Cu+ gl NaCl 25°C 1.00M U K1=16.33 B2=23.97 B3=29.40 B4=31.78 1993HMc (2639) 28

Cu+ EMF oth/un 25°C var U B2=16.26 1974KHa (2640) 29

Cu+ EMF oth/un 25°C ? U B2=23.84 K3=4.54 K4=1.84 1973BZb (2641) 30

Cu+ EMF oth/un 25°C 0.03M U B2=21.7 B3=26.8 B4=27.9 1972HFa (2642) 31

Medium: 0.025 M KCN

Cu+ sp non-aq 190°C 100% U B2=7.25 1972HNa (2643) 32
 Medium: liquid KSCN

Cu+	sp	oth/un	25°C	dil	U			1971PKa	(2644)	33	
							K3=5.20				
Cu+		EMF	non-aq	370°C	100%	U	K1=2.4	B2=3.5	1970IJa	(2645) 34	
		Medium:	fused	(Li,K)Cl							
Cu+	sp	NaCl04	25°C	2.0M	U			1969KHb	(2646)	35	
							K4=2.62				
Cu+	vlt	non-aq	195°C	100%	U		B2=5.70	1967ETa	(2647)	36	
		Medium:	liquid	KSCN							
Cu+	gl	oth/un	25°C	0.0	U	H		1967IJa	(2648)	37	
							K3=5.30				
							K4=1.5				
		Medium:	0	corr.	By calorimetry:	DH(K3)=-46.4	kJ mol ⁻¹ , DS=-56				J K ⁻¹ mol ⁻¹ ,
						DH(K4)=-46.8,	DS=-130. DH(B2)=-121.6,				DS=-50. DH(Cu+Cl=CuCl(s))=-19.1
Cu+	sp	oth/un	?	?	U			1966ESa	(2649)	38	
							K4=2.53				
Cu+	cal	oth/un	25°C	0.60M	U			1965BRd	(2650)	39	
							K3=5.0				
							K4=2.64				
Cu+	sp	oth/un	25°C	0.01M	U			1959BWa	(2651)	40	
							K3=5.34				
							K4=1.74				
		Medium:	KOH								
Cu+	sp	oth/un	25°C	.001M	U	I		1958SWa	(2652)	41	
							K3=4.10				
		At 0	corr,	K3=4.59,	K4=1.72.						
Cu+	sp	oth/un	20°C	var	U	T	B2=21.7	1957R0b	(2653)	42	
							K3=4.6				
							K4=2.3				
		Medium:	KCN.	B2=17.7,	K3=3.9,	K4=1.23	at 80 C. Also used: Cu electrode				
Cu+	oth	oth/un	25°C	0.10M	U	TIH		1956PJb	(2654)	43	
							K3=4.82				
							K4=2.24				
		DH(K3)=-84	kJ mol ⁻¹ ,		DH(K4)=-50.	29 C:	K3=4.61,	K4=2.12.	At I=0		corr.: 29 C
		K3=4.38,	K4=1.59.		At 25 C:	B2=24.0,	K3=4.59,	K4=1.70,	B4=30.3. Method ir		
Cu+	ISE	none	25°C	0.0	U			1953Sub	(2655)	44	
							B4=27.56				
		Method:	Cu amalgam electrode								

Cu+ oth none 25°C 0.0 U B2=16 1952LAb (2656) 45
Method: combination of thermodynamic data

Cu+ ISE oth/un 18°C var U B3=20.78(?) 1951STa (2657) 46

Cu+ sol none 25°C 0.0 U B2=23.8 1950VKa (2658) 47
K(CuL(s)=Cu+L)=-19.49
K(CuL(s)+HL=CuL2+H)=-4.9

Additional method: Cu electrode

Cu+ EMF oth/un 18°C var U B4=28 1941BJa (2659) 48
K4=ca.2

Method: Cu amalgam electrode.

Cu+ EMF oth/un 18°C var U B4=27.3 1904KUa (2660) 49

Method: Cu amalgam electrode

CO L Carbon monoxide CAS 630-08-0 (551)
Carbon monoxide;

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

Cu+ ISE NaClO4 25°C 3.0M C I M 1997CIb (2784) 50
K(Cu+CO(g))=1.30
K(Cu+2CO(g))=-0.41
K(Cu+CO(g)+Cl)=3.16
K(Cu+CO(g)+2Cl)=3.64

K(CO(g)=CO(aq))=-5.39. At I->0: K(Cu+CO(g))=1.3, K(Cu+CO(aq))=6.3,
K(Cu+2CO(g))=-0.5, K(Cu+2CO(aq))=9.6, K(Cu+CO(aq)+Cl)=8.4

Cu+ sp mixed ? 1.6% U K(Cu(phen)+L)=1.4 1992MKa (2785) 51

Medium 1.56% v/v MeCN/acetone.

Cu+ con non-aq 20°C 100% U K(CuA+L)=1.44 1986NLa (2786) 52

Medium: CH3CN; A=2,6-di(4-aza-5-methylpent-1,4-diene)-pyridine. Data also for related ligands

Cu+ sp non-aq 20°C 100% U M K(CuA+L)=4.67 1977GAb (2787) 53

Medium: Acetone. MA=Difluoro-3,3'-(trimethylenedinitrilo)bis(2-butanone oximato)-borate-copper(I). K(CuA+L)=4.83 by cyclic voltammetry

C6N6Fe---- H4L (2191)

Hexacyanoferrate (II); Fe(II)(CN)6----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	ISE	oth/un	25°C	0.0	U				1964RPa (3564)	54
								$K_s(K_2Cu_2L) = -26.66$		

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	sp	oth/un	100°C	0	C T			B2=4.84 B3=3.91 B4=1.3	2002LBa (4736)	55

Calculated from data for 1.5-9.1 m LiCl solutions. Data for 100-250 C. By extrapolation, at 25 C, B2=5.46, B3=4.75, B4=2.77.

Cu+	sol	NaCl	50°C	0.0	C T			K1=3.99 B2= 5.01 B3=5.51	2001LMa (4737)	56
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Method: solubility of cuprite (Cu₂O) in buffered NaCl (0.001-2.0 m) at 50-250 C.

Cu+	ISE	NaClO ₄	25°C	3.0M	C I			K1=3.00 B2=5.52 B3=5.46 B4=4.8	1998CIa (4738)	57
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At I=0, SIT extrapolation: K1=3.16, B2=5.37, B3=4.7, B4=2.8

Cu+	sol	NaCl	25°C	0.0	C T			K1=3.30 B2= 5.57 B3=4.86 $K_s(CuCl(s)=CuCl) = -2.94$ $K_s(CuCl(s)+Cl=CuCl_2) = -1.15$ $K_s(CuCl(s)+2Cl=CuCl_3) = -2.16$	1998XGa (4739)	58
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Method: solubility of CuCl in HCl/NaCl solutions (0.01-1.0 m), pH 0-3.5. Values corrected to I=0. Ks values at 40 C. Data for 40-150 C.

Cu+	vlt	NaCl	25°C	1.0M	C			B2=4.9	1993WSb (4740)	59
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Method: pulse voltammetry at microelectrodes.

Cu+	sp	NaCl	25°C	0.50M	U TI			K3=-0.39	1990SMc (4741)	60
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Data at I to 6.0 M and 5 - 45 C

Cu+	ISE	non-aq	25°C	100%	U			B2=19.9	1988LEc (4742)	61
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Medium: propylene carbonate, 0.1 M Et₄NClO₄. K_{so}=-16.0.

Cu+	sp	NaClO ₄	25°C	1.0M	C I			K3=-0.183	1988SBd (4743)	62
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In 5.0 M NaClO₄, K₃=-0.188

Cu+	ISE	non-aq	25°C	100%	U IH			K1=7.006 B2=10.036	1987JPa (4744)	63
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Medium: tetrahydrothiophene, 0.1M Bu₄NBF₄

Cu+ ISE non-aq 25°C 100% C H K1=3.09 B2=5.00 1986AIb (4745) 64
Medium: DMSO, 0.1 M NH4ClO4. DH(K1)=13.0; DH(B2)=30.4 kJ mol-1

Cu+ oth NaClO4 25°C 5.0M C B2=6.08 1984FRa (4746) 65
B4=5.89
B(Cu2Cl4)=11.9
B(Cu3Cl6)=ca.19.7
K(CuCl(s)+Cl)=-1.37

Method: recalculation from solubility and potentiometric data.
K(CuCl(s)+2Cl)=-1.21, K(3CuCl(s)+6Cl)=-1.92.

Cu+ ISE non-aq 25°C 100% C H K1=4.02 B2=9.55 1983ANa (4747) 66
Medium: Acetonitrile; DH(K1)=16.8, DH(K2)=4.4 kJ mol-1

Cu+ vlt oth/un 20°C 0.70M C B2=4.64 1983GDb (4748) 67
Method: polarography. Medium: 0.70 M (NaClO4+NaCl).

Cu+ oth NaCl 25°C var C TIH 1981FRa (4749) 68
Ks(CuCl(s)+Cl=CuCl2)=-1.22
Ks(CuCl+2Cl=CuCl3)=-1.89
Ks(2CuCl+2Cl=Cu2Cl4)=-3.09
Ks(3CuCl+3Cl=Cu3Cl6)=-4.47

Method: analysis of literature data. Also data for KCl and NH4Cl media.
DH(CuCl2)=27.8 kJ mol-1, DS(CuCl3)=13.9, DS(Cu2Cl4)=25.5, DS(Cu3Cl6)=5.94

Cu+ sol NaCl 250°C 0.00 U 1981VRa (4750) 69
K(Cu2O+H2O+2Cl=2CuCl(OH))=-2.3

Cu+ ISE non-aq 25°C 100% C H K1=4.37 B2=8.87 1980ABd (4751) 70
Medium: DMSO, 1 M NH4ClO4; DH(K1)=-6.4, DH(K2)=-7.8 kJ mol-1

Cu+ sol KCl 25°C 1.0M U B2=5.48 1980FRa (4752) 71
B3=4.81
B(Cu2L4)=10.3

Medium: 0.5 - 5.0 M HCl/KCl

Cu+ sp NaClO4 RT 3.0M C K3=0.041 1978DSa (4753) 72

Medium 3M: (NaClO4 +1.0 M HClO4 + 0.25-1.7 M NaCl)

Cu+ ISE NaCl 25°C 1.00M U B2=5.79 1978PHa (4754) 73
B3=5.51

Cu+ cal NaClO4 25°C 5.0M C H K3=-0.12 1977ATb (4755) 74

Medium: 0.1 M HClO4/4.9 M NaClO4. DH(K3)=-19.9 kJ mol-1. DS(K3)=-69 J K-1 mol-1.

Cu+ sp NaClO4 25°C 5.00M C M 1976SFa (4756) 75

$K(\text{CuCl}_2+\text{OH}=\text{CuClOH}+\text{Cl})=4.04$
 $K(\text{CuCl}_2+\text{OH})=3.61$
 $K(\text{CuCl}_2+2\text{OH}=\text{CuCl}(\text{OH})_2+\text{Cl})=6.58$

 Cu+ cal oth/un 25°C 0 C T 1975VKa (4757) 76

DH(Cu+2Cl)=-11.59 kJ/mol

DH(Cu+3Cl)=-26.57 kJ/mol

Extrapolation of data in HCl/HClO4 medium to zero ionic strength
 Also data for 15 and 35 C

 Cu+ sol NaClO4 25°C 1.0M U T 1973HIa (4758) 77

$K_s(\text{CuCl}(\text{s})+\text{L}=\text{CuL}_2)=-1.23$

$K_s(\text{CuCl}(\text{s})+2\text{Cl}=\text{CuCl}_3)=-1.57$

$K_s(\text{CuCl}(\text{s})+3\text{Cl}=\text{CuCl}_4)=-1.89$

Medium: HClO4. At 15 C: values:-1.38, -1.68, -2.00. Also other backgrounds

 Cu+ ISE non-aq 25°C 100% U K1=6.0 B2=12.20 1973SIA (4759) 78

Medium: DMSO, 0.1 M Et4NClO4

 Cu+ vlt non-aq 25°C 100% U K1=6.0 B2=11.95 1972FDc (4760) 79

Medium: DMSO, 0.1 M Et4NClO4

 Cu+ ISE non-aq 25°C 100% U K1=4.9 B2=10.7 1972HRA (4761) 80

$K(\text{Et}_4\text{N}+\text{L})=1.54$

Medium: CH3CN, 0.1 M Et4NClO4. Error in abstract?

 Cu+ ISE non-aq 25°C 100% U K1=4.3 B2=10.2 1971SKa (4762) 81

$K((\text{C}_2\text{H}_5)_4\text{N}+\text{L})=1.54$

Medium: MeCN, 0.1 M Et4NClO4

 Cu+ EMF non-aq 99°C 100% U 1971TEb (4763) 82

$K(\text{CuL}(\text{s})+\text{SbL}_3=\text{SbL}+\text{CuL})=-8.5$

Medium: SbCl3

 Cu+ sol NaClO4 25°C 5.0M U K1=2.7 B2=6.00 1970ARA (4764) 83

$K_3=-0.01$

$K_4 < -1.3$

$K_{so}=-7.38$

$K(2\text{CuL}_2=\text{Cu}_2\text{L}_4)=1.1$

Cu amalgam electrode also used

 Cu+ ISE oth/un 25°C var U 1970BPe (4765) 84

B3=4.93

 Cu+ kin NaNO3 20°C 0.20M U K1=3.63 B2=5.19 1970GZA (4766) 85

B3=5.19

 Cu+ EMF non-aq 99°C 100% U 1969BBa (4767) 86

$K_s(\text{CuL}(\text{s})+\text{L}=\text{CuL}_2)=-0.74$

Medium: SbCl3

Cu+	oth none	50°C	0.0	U T	B2=4.94 B3=5.18	1969HEa (4768)	87
Estimated from literature data. 100 C: B2=5.06, B3=5.39; 150 C: B2=5.35, B3=5.77							
Cu+	oth oth/un	25°C	var	U	B2=5.38 B3=5.34	1969LIa (4769)	88
Cu+	EMF R4N.X	25°C	14.0M	U	B2=6.30 B3=6.08 B4=5.70	1969SBg (4770)	89
Medium: NH4NO3							
Cu+	EMF R4N.X	50°C	10.0M	U T H	B2=5.85 B3=5.45 B4=4.86	1969STc (4771)	90
Medium: NH4NO3. DH(B2)=-17.2 kJ mol ⁻¹ , DH(B3)=-36.4, DH(B4)=-48.5; B2=5.68, B3=5.60, B4=4.30 (m units). Suggests 13 polynuclear cpx.							
Cu+	ISE R4N.X	25°C	6.50M	U	B2=6.04 B3=5.98 B4=5.60 B(Cu2Cl3)=12.3 B(Cu2Cl4)=12.2	1968STd (4772)	91
Medium:NH4NO3. Many other equilibria considered							
Cu+	vlt non-aq	25°C	100%	U I	B2=9.3	1967MIc (4773)	92
Medium: MeOH, 1 M LiClO4. In EtOH, B2=12.3; in i-PrOH, B2=13.4, in i-BuOH: 14.1; in acetone: 20.9. Data also correcting for LiCl and LiClO4 pairs							
Cu+	vlt non-aq	25°C	100%	U	K1=4.9	B2=10.80	1965MIa (4774) 93
Medium:MeCN, 0.1 M Et4NClO4							
Cu+	ISE none	20°C	0.0	U	B2=5.5? K3=0.2 B3=5.7?	1961HUa (4775)	94
Cu+	sol NaClO4	25°C	4.0M	U	K(CuL(s)+L)=-1.35 K(CuL(s)+2L)=-1.39	1953Vsa (4776)	95
Cu+	ISE oth/un	18°C	var	U	B3=5.30(?)	1952STa (4777)	96
Cu+	sol NaClO4	25°C	1.0M	U	K(CuL(s)+L)=-1.12 K(CuL(s)+2L)=-1.47	1950MDa (4778)	97
Cu+	sol none	25°C	0.0	U	B2=4.94	1948CHa (4779)	98


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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Cu+        sol NaNO3  25°C  5.0M U    M                                1959FSc (7393) 109
                                                B(Cu(SCN)2I)/Kso(CuSCN))=-2.62
                                                B(Cu(SCN)3I)/Kso(CuSCN))=-2.70
                                                B(Cu(SCN)2I2)/Kso(CuSCN))=-2.45
                                                B(Cu(SCN)3I2)/Kso(CuSCN))=-2.70
B(CuIBr)/Kso(CuI))=-2.06, B(CuIBr2)/Kso(CuI))=-2.92
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I-          HL      Iodide          CAS 10034-85-2 (20)
Iodide;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        ISE non-aq 25°C 100% U          B2=17.2      1988LEc (7983) 110
Medium: propylene carbonate, 0.1 M Et4NClO4. Kso=-17.0.
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Cu+        kin NaClO4 25°C 1.00M C          K1=5.7       1988SMa (7984) 111
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Cu+        ISE non-aq 25°C 100% U IH     K1=6.98     B2=9.38     1987JPa (7985) 112
Medium: tetrahydrothiophene, 0.1M Bu4NBF4
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Cu+        ISE non-aq 25°C 100% C H      K1=2.69     B2=3.59     1986AIb (7986) 113
Medium: DMSO, 0.1 M NH4ClO4. DH(K1)=8.5 kJmol-1
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Cu+        ISE non-aq 25°C 100% C H      K1=3.13     B2=5.97     1983ANa (7987) 114
Medium: Acetonitrile; DH(K1)=8.5, DH(K2)=12.8 kJ mol-1
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Cu+        ISE non-aq 25°C 100% C H      K1=4.71     B2=7.67     1980ABd (7988) 115
                                                B(Cu2I)=6.5
Medium: DMSO, 1.0 M NH4ClO4. DH(K1)=-13.6 kJ mol-1, DS=45 J K-1 mol-1;
DH(B2)=-10.5, DS(K2)=67
-----
Cu+        sp  NaClO4 25°C 5.00M U          B3=0.20      1980SFa (7989) 116
-----
Cu+        ISE NaClO4 25°C 5.00M C          B2=8.68     1977ATa (7990) 117
                                                B3=10.43
                                                B4=9.40
                                                B(Cu2I6)=22.0
                                                Kso=-12.72
-----
Cu+        sol KNO3   25°C  0.33M U    M                                1977GTa (7991) 118
                                                B(CuINbO3)=12.19
                                                B(CuINbO3)=11.92 by potent'ry
-----
Cu+        vlt non-aq 25°C 100% U          K1=5.5      B2=8.2      1972FDc (7992) 119
Medium: DMSO, 0.1 M Et4NClO4
-----

```

Cu+ ISE non-aq 25°C 100% U I K1=3.2 B2=6.4 1972HRa (7993) 120
Medium: MeCN, 0.1 M Et4NClO4. K(Et4N+I)=0.7. In 0.1 NaClO4: K1=3.1, B2=6.2

Cu+ EMF non-aq 25°C 100% U I K1=3.1 B2=5.8 1971SKa (7994) 121
Medium: MeCN, 0.1 M Et4NClO4. K(Et4N+I)=0.7. In 0.1 NaClO4: K1=3.1, B2=5.7

Cu+ ISE oth/un 25°C var U B3=8.81 1970BPe (7995) 122

Cu+ sol non-aq 20°C 100% U Ks2(CuI(s)+I=CuI2)=0.22 1970TZA (7996) 123

Medium: acetone

Cu+ sol NaNO3 20°C 3.90M U B2=8.68 1968GYb (7997) 124
B2=(9.68?)
B4=8.44(9.44?)
Ks2=-2.28
Ks4=-2.52

Cu+ sol oth/un 320°C var U T Ks(CuI2(s)+I)=-0.13 1964GGa (7998) 125
Medium:KI. Ks=-1.17(200 C), -0.68(260 C), -0.32(300 C)

Cu+ sol NaNO3 20°C 0.60M U I B2=9.03 1962GSb (7999) 126
K(CuI(s)+I=CuI2)=-3.0
K(CuI(s)+2I=CuI3)=-2.28
In 4 M: B4=9.85, K(CuL(s)+3L=CuL4)=-2.18. In EtOH: K(CuL(s)+L=CuL2)=0.23.
By Cu electrode, I=KI var: B3=9.74, Kso(CuL)=-12.03. In 30% Me2CO: B4=9.9

Cu+ sol NaNO3 25°C 5.0M U K(CuI(s)+2I=CuI3)=-2.58 1959FSc (8000) 127
K(CuI(s)+3I=CuI4)=-2.23
B3=9.38
K4=0.35

Cu+ kin oth/un 25°C var U B6/B3=3.23 1958HSa (8001) 128

Cu+ sol oth/un 19°C var U B2=8.19 1902BSa (8002) 129
Kso(CuL)=-11.30
K(CuL(s)+L=CuL2)=-3.11

Cu+ ISE none 25°C 0.0 U B2=8.85 1902BSa (8003) 130
Kso(CuL)=-11.96

Method: Cu electrode and solubility, I=0 corr.

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

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

```

-----
Cu+      gl  NaClO4 25°C 1.00M C      B2=11.381      1995SHb (9138) 131
          B(Cu(L)Cl)=8.92
          B(Cu(L)2Cl)=11.33
          B(Cu(L)Cl2)=8.82
-----
Cu+      sp  R4N.X 25°C 0.43M C I      1986BJa (9139) 132
          K3=-1.42
-----
Cu+      gl  NaNO3 20°C 1.00M C      B2=10.46      1978CPa (9140) 133
-----
Cu+      EMF R4N.X 20°C 0.50M U      B2=10.18      1973PEa (9141) 134
Medium: NH4NO3
-----
Cu+      vlt oth/un 30°C var U      B2=10.13      1971SSe (9142) 135
-----
Cu+      vlt KNO3 30°C 0.50M U      B2=10.4      1967FHa (9143) 136
          B(Cu(OH)L)=10.9
-----
Cu+      vlt R4N.X rt 2.0M U      B2=11.2      1940SFa (9144) 137
Medium: NH4NO3.
-----
Cu+      EMF R4N.X 18°C 2.0M U H      K1=5.93 B2=10.86 1934BJb (9145) 138
Method: Cu/Hg electrode. Medium: NH4NO3. DH(B2)=-66.9 kJ mol-1
-----
Cu+      ISE oth/un 21°C var U      B2=8.74      1901B0a (9146) 139
*****
N3-      HL Azide      CAS 7782-79-8 (441)
Azide;
-----
Metal    Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+      vlt NaClO4 25°C 4.0M U      1972SNd (10201) 140
          B3=7.76
-----
Cu+      EMF oth/un 25°C 0.0 U      1953SUa (10202) 141
          Kso(CuL(s))=-8.31
          K(CuL(s)+e=Cu(s)+L)=-0.52
-----
Cu+      sol oth/un rt dil U      1943SCa (10203) 142
          Kso(CuL(s))=-8.3
*****
OH-      HL Hydroxide      (57)
Hydroxide;
-----
Metal    Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+      oth none 60°C 0.0 U T      1969HEa (11264) 143
          *Kso=-1.01
Method:Estimated data. *Kso=-0.48(100 C), 0.05(150 C), 0.62(200 C),

```

1.16(250 C), 1.70(300 C) (cuprite)

Cu+ oth none 25°C 0.0 U 1963FSa (11265) 144

Kso=-14.7

Kso: $K(0.5Cu_2O(s)+0.5H_2O=Cu+OH)$; method:combination of thermodynamic data

Cu+ cal oth/un 18°C 0.25M U H 1953SLa (11266) 145
DH(*Kso($CuO(s)+2H=Cu+H_2O$))=-63.9 kJ mol⁻¹; DH(*Kso($Cu(OH)_2(s)$))=-62.4

Cu+ ISE oth/un 17°C var U 1909ALa (11267) 146

Kso=-14.0

Kso: $K(0.5Cu_2O(s)+0.5H_2O=Cu+OH)$; method:emf with Cu electrode

O2 L Oxygen CAS 7782-44-7 (83)

Dioxygen, also oxide; O⁻, and superoxide, O₂⁻

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

Cu+ oth non-aq 25°C 100% U T H 2001CBb (12612) 147

K($2CuA+O_2=ACu(O_2)CuA$)=1.51

Method: manometric techniques. Medium: CH₂Cl₂. Data for -25 to 25 C.

A=Tris(pyrazolyl)-methane. DH=-110 kJ mol⁻¹, DS=-340 J K⁻¹ mol⁻¹.

Cu+ kin non-aq 25°C 100% U T HM 1994KNb (12613) 148

K(Cu_2A+L)=0.591

Medium:CH₂Cl₂. T:-90 to 25C. K(Cu_2A+L)=7.41(-90C), 4.23(-50C). A:1,3-(Bis(2-(2-pyridyl)ethyl)aminomethyl)benzene(+ others also). DH=-62 kJ mol⁻¹;DS=-196

Cu+ kin non-aq 25°C 100% U T HM 1993Kwa (12614) 149

K($CuAB+L=CuAL+B$)=-0.469

Medium:Propionitrile. T. -90 - 25C. K=3.28(-90C). A:Tris[(2-pyridyl)methyl]amine. B:Acetonitrile. DH=-34 kJ mol⁻¹; DS=-123.

Cu+ kin non-aq 25°C 100% U T HM 1993Kwa (12615) 150

B($2CuA+L$)=2.64

Medium:Chloroform. T. -90 - 25C. B=10.23(-90C). A:Bis[(2-pyridyl)methyl][2-quinolylmethyl]amine. DH=-69 kJ mol⁻¹; DS=-181.

Cu+ kin oth/un 25°C 0.0 U T HM 1991Kwa (12616) 151

K($CuAB+L=CuAL+B$)=-0.545

-90 to 25 C. K($CuAB+L=CuAL+B$)=3.15(-90C). A=tris[(2-pyridyl)methyl]amine.

B=CH₃CN or C₂H₅CN. DH=-33.5 kJ mol⁻¹; DS=-123.

Cu+ EMF NaCl 800°C ? U 1970CTa (12617) 152

Kso=-12.4 (x units)

Ligand=Oxide, O⁻; Medium: Fused(Na,K)Cl

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

Phosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	EMF	NaClO4	25°C	3.0M	C	I			1993CIb (13159)	153
								K(Cu+H2PO4)=0.52 K(Cu+2H2PO4)=1.48 K(Cu+2H2PO4=CuH3(PO4)2+H)=-2.9		
Method: Cu++ + Cu(s)=2Cu+. At I=0 (SIT): KCu+H2PO4)=0.87, K(Cu+2H2PO4)=1.8 K(Cu+2H2PO4=CuH3(PO4)2+H)=-3.0										

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
Cu+	vlt	oth/un	25°C	0.10M	U			B2=26.72	1949RRa (13580)	154
Medium:Na4L										

P208----		H4L							CAS 13825-81-5	(2402)
Peroxdiphosphate, also cyclic metaposphates, thiophosphates etc.;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	con	none	25°C	0.0	U			K1=1.15	1969YKa (13690)	155
Ligand:hexafluorophosphate, PF6 - Medium:MeCN										

S--		H2L		Sulfide					CAS 7783-06-4	(705)
Sulfide;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	sol	none	25°C	0.0	C	T H			2003MSa (14334)	156
								K(Cu+2HS=Cu(HS)2)=17.3		
Calc. from the solubility of Cu2S (chalcocite) in HS- solutions (0.02-0.15 m). Data for 25-350 C. At 25 C, DH(K)=-102 kJ mol-1, DS=-11.1 J K-1 m-1.										
Cu+	sol	none	25°C	0.0	C				2000CHb (14335)	157
Dissolution of Cu-S phases in HS- solutions, pH 3.5-10. Ks(0.5As2S3+3H2O=H3AsO3+1.5H2(aq))=-12.28; Ks(1.5As2S3(s)+1.5H2S(aq)=H+H2As3S6)=-5.38										
Cu+	vlt	oth/un	25°C	0.72M	C				1999AVb (14336)	158
								K(Cu+HL)=16.67 K(Cu+2HL)=23.17		
Method: determination of Cu by cathodic stripping voltammetry using oxine as competitive ligand. Medium: seawater, pH 8.0, S=35.										
Cu+	sol	oth/un	22°C	0.0	M				1999MSb (14337)	159
								K(Cu+HS)=ca. 13 K(Cu+2HS)=17.18 K(2Cu+3HS=Cu2S(HS)2+H)=29.87		

By Cu electrode. I=0 corr. From thermodynamic data Kso=-49.44(25 C)

Cu+ ISE oth/un 18°C var U T 1921TRa (14349) 171
Kso(Cu2L)=-46.7
K(0.5Cu2L(s))=-11.85

By Cu electrode. K=0.5Cu2L+H=Cu+0.5H2L(g)

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

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

Cu+ sp non-aq 25°C 100% C K1=0.32 1998AEa (14909) 172
Medium: N,N-Dimethylthioformamide. Methods: IR and FT Raman spectroscopy.
Ligand is N-bonded (isothiocyanate).

Cu+ ISE non-aq 25°C 100% U IH K1=6.005 B2=8.77 1987JPa (14910) 173
Medium: tetrahydrothiophene, 0.1M Bu4NBF4

Cu+ ISE non-aq 25°C 100% C H T K1=2.62 B2=3.83 1986AIb (14911) 174
Medium: DMSO, 0.1 M NH4ClO4. DH(K1)=4.7; DH(B2)=11.6 kJ mol-1

Cu+ ISE NaClO4 25°C 5.00M C 1977ATa (14912) 175
B3=11.60
B4=12.02
B(Cu2L6)=24.34
Kso=-14.77

Cu+ sp non-aq 130°C 100% U 1974HNa (14913) 176
B4=6.80
Medium: dimethylsulfone. Using current-voltage studies, B4=5.02

Cu+ vlt non-aq 25°C 100% U T K1=4.3 B2=9.3 1972FDc (14914) 177
Medium: DMSO, 0.1 M Et4NClO4

Cu+ sol R4N.X 60°C 2.0M U 1971GPb (14915) 178
Kso(CuL(s)+2L=CuL3)=-2.41

Cu+ ISE non-aq 25°C 100% U K1=3.6 B2=7.2 1971SKa (14916) 179
Medium: acetonitrile, 0.1 M NaClO4

Cu+ nmr oth/un 20°C var U 1970YHa (14917) 180
K=ca.-3
Method: nmr. K: Cu(CN)4+L=Cu(CN)3L+CN

Cu+ sol NaNO3 20°C 2.0M U I 1966SDd (14918) 181
Kso=-11.32
B(CuLBr)=7.76
B(CuL(NO2))=8.37

I=4: Kso=-11.15, B(CuLCl)=7.31. I=4.4 NH4NO3: K(CuL(s)+3L=CuL4)=-2.71

 Cu+ sol NaNO3 25°C 5.0M U 1959FSc (14919) 182
 K(CuL(s)+L=CuL2)=-2.40
 K(CuL(s)+2L=CuL3)=-2.50
 K(CuL(s)+3L=CuL4)=-2.92
 B2=11.00
 K(CuL(s)=Cu+L)=-13.40 assumed. K3=-0.10, K4=-0.42

Cu+ sol R4N.X rt var U 1958SPd (14920) 183
 B4=10.64
 Medium: NH4SCN. By Cu electrode B4=10.88

Cu+ sol oth/un rt var U 1958SPd (14921) 184
 B4=10.64
 Medium: NH4L; K(CuL(s)=Cu+L)=-13.40 assumed

Cu+ EMF oth/un 20°C var U 1958SPd (14922) 185
 B4=10.88
 Medium: NH4L; K(e + Cu+=Cu(s))=ca.9.0(526 mV) assumed; method: emf with Cu electrode.

Cu+ sol oth/un 20°C var U T H 1956G0a (14923) 186
 K(CuL(s)=Cu+L)=-12.73
 K(CuL(s)+3L=CuL4)=-2.65
 By Cu electrode: B3=9.90, B4=10.09, B5=9.59, B6=9.27. B4=9.53(40 C), 9.04 (60 C). DH(B4)=-49 kJ mol⁻¹. In acetone, 20 C: K(CuL(s)+L=CuL2)=0.45

Cu+ ISE oth/un 18°C var U 1951STa (14924) 187
 B2=12.11(?)

Cu+ vlt oth/un 25°C var U 1950KMa (14925) 188
 B4=9.15

Cu+ sol none 25°C 0.0 U 1950VKa (14926) 189
 K=-8.88
 K: K(CuL(s)+2HCN=Cu(CN)2+2H+L)

Cu+ sol oth/un 25°C var U 1950VKa (14927) 190
 K(CuL(s)=Cu+L)=-14.32
 Additional method: Cu electrode

Cu+ con oth/un 18°C dil U 1893KRa (14928) 191
 K(CuL(s)=Cu+L)=-10.8?

 SO3-- H2L Sulfite CAS 7782-99-2 (801)
 Sulfite;

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

Cu+ vlt oth/un 25°C 0.8?M U B2=8.5 1955TSb (15448) 192

K3=0.8

Medium:Na2SO4.

Cu+ ISE oth/un 25°C 1?M U K1=7.85 B2=8.70 1955TSb (15449) 193
K3=0.66

Method: Cu electrode. Medium: Na2SO4

S2O3-- H2L Thiosulfate CAS 73686-28-7 (177)
Thiosulfate;

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

Cu+ gl oth/un 25°C 2.40M U K1=8.90 B2=9.30 1976GDa (16830) 194
B3=10.34
B4=11.51

Medium: Na2SO4, B values also available for K2SO4 medium

Cu+ sol oth/un 25°C 0.20M U M 1976GDa (16831) 195
K(CuSCN+S2O3)=-0.51
B(CuSCN+S2O3)=12.22

Medium: Na2S2O3, data also available for K2S2O3 medium

Cu+ gl oth/un 25°C ? U M K1=9.0 B2=10.8 1976GDb (16832) 196
B3=11.4
B4=12.7
B(CuI(S2O3))=13.04 by solub'ty

Cu+ gl oth/un 25°C 0.19M U M K1=9.0 B2=9.70 1975GBa (16833) 197
B3=10.30
B4=11.04
B(CuI(S2O3))=12.55 by solub'ty

Cu+ ISE oth/un 25°C var U 1970BPe (16834) 198
B3=13.77

Cu+ ISE oth/un 25°C var U 1970BPe (16835) 199
B(CuL2Cl)=12.89
B(CuL2Br)=13.04
K(CuL2I)=13.60

Cu+ sol oth/un 20°C 3.0M U M 1968GYb (16836) 200
Ks(CuSCN(s)+L)=-0.42
B(CuLSCN)=13.90
Kso(CuSCN)=-14.32
Ks(CuI(s)+L)=0.42

Medium: Na2SO4. B(CuLI)=12.38

Cu+ vlt KNO3 25°C 1.20M U 1958DAa (16837) 201
B3=14.30

Cu+ vlt oth/un 25°C 0.80M U K1=10.35 B2=12.27 1955TSa (16838) 202
K3=1.44

Medium: Na2SO4. By Cu electrode B3=13.64

Cu+ sol oth/un 25°C var U M 1952YPa (16839) 203
B(Cu(SCN)L2)=12.89
B(CuIL2)=12.51

Cu+ ISE oth/un 18°C var U B2=11.69 1951STa (16840) 204

Se-- H2L Selenide (6335)
Selenide;

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

Cu+ oth none 25°C 0.0 U 1964BUE (16938) 205
Kso=-60.8

SeCN- HL Selenocyanate CAS 73102-11-2 (440)
Selenocyanate;

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

Cu+ ISE oth/un 20°C dil U I 1960GSd (16982) 206
K(CuL(s)=Cu+L)=-9.74

By solubility in acetone: K(CuCl(s)+L=CuCL)=-0.62

CHN3S2 HL (7830)
1,2,3,4-Thiatetrazol-5-thiolate;

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

Cu+ vlt NaClO4 25°C 2.0M U I 1975NFa (17457) 207
B4=16.47

CH4N2S L Thiourea CAS 62-56-6 (51)
Thiocarbamide, Thiourea; (H2N)2CS

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

Cu+ oth NaClO4 25°C 1.00M U K1=7.51 B2=13.04 1986KGa (17820) 208
B3=15.88
B4=18.66

Numerical re-evaluation of results given in J.Inorg.Nucl.Chem. 42, 87 (1980)
Measurements in 1M HClO4; old value of K1 = 10.2

Cu+ vlt KCl 25°C 0.10M U B2=12.30 1976FLa (17821) 209
B3=14.30
B4=15.53

Cu+ ISE non-aq 25°C 100% U B2=6.3 1972HRa (17822) 210
Medium: MeCN, 0.1 M Et4NClO4

Cu+ vlt NaNO3 25°C 0.10M U B4=15.4 19500La (17823) 211

CH5N L Methylamine CAS 74-89-5 (155)
Methylamine; CH3.NH2

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

Cu+ vlt KNO3 30°C 2.00M U B2=9.21 1971SSe (18013) 212

Cu+ vlt KNO3 30°C 2.00M U B2=9.62 1971SSe (18014) 213

C2H2 L Acetylene CAS 74-85-1 (703)
Ethyne; HCCH

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

Cu+ EMF NaClO4 25°C 3.0M C M K1=5.14 1999CTa (18354) 214
*K1=-9.05
K(Cu+L+Cl)=6.56
K(Cu+L+2Cl)=7.18
*Ks(2Cu+L=Cu2C2(s,am)+2H)=14.7

Based on the solubility constant: L(g)=L(aq), Kp=2.5.10⁻⁴ M/kPa
Method: Cu/CuHg electrode

Cu+ sp mixed ? 1.6% U K(Cu(phen)+L)=1.2 1992MKa (18355) 215

Medium 1.56% v/v MeCN/acetone.

C2H3N L Cyanomethane CAS 75-05-8 (1399)
Acetonitrile; CH3.CN

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

Cu+ sp NaClO4 21°C 0.14M C K1=2.63 B2= 4.02 2001KJa (19183) 216
B3=4.30

Medium: 0.11 M NaClO4, 0.033 M HClO4.

Cu+ ISE mixed 25°C 0.10M U K1=-0.08 B2=-0.54 1974RZa (19184) 217
Medium: DMSO, 0.1 M LiClO4

Cu+ kin NaNO3 20°C 0.20M U K1=3.27 1970GZa (19185) 218

Cu+ vlt oth/un 20°C 0.20M U K3=0.05 1970ZUa (19186) 219

Cu+ EMF NaClO4 25°C 0.10M U I B2=3.9 1967MIId (19187) 220

B3=4.1

Medium:0.1(?)LiClO4. In MeOH:K1=2.5,B2=3.9,B3=4.5,B4=4.2; EtOH:3.7,5.4,5.9, 5.9; Pr-2-OH:3.1,5.3,5.9,6.1; Acetone:4.4,6.3,6.7,7.2. Also other media

Cu+	vlt	NaClO4	25°C	0.10M	U		B2=4.35		1963HSa (19188)	221

C2H4		L	Ethylene				CAS 74-85-1		(478)	

Ethene; H2C:CH2

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

Cu+	sp	mixed	?	1.6%	U				1992MKa (19425)	222
								K(Cu(phen)+L)=2.2		

Medium 1.56% v/v MeCN/acetone.

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

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

Cu+	sol	oth/un	50°C	0.0	C T		K1=2.55	B2= 2.49	2001LMa (19937)	223

Method: solubility of cuprite (Cu2O) in buffered NaL (0.1-2.0 m) at 150 and 250 C.

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

Cu+	EMF	oth/un	25°C	0.30M	U		B2=10.0		1961JWa (21526)	224

Method:platinum electrode. Medium: K2SO4

C2H6N2S		L	Methyl-Thiourea				CAS 598-52-7		(1077)	
---------	--	---	-----------------	--	--	--	--------------	--	--------	--

N-Methylthiourea; CH3.NH.CS.NH2

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

Cu+	vlt	KCl	25°C	0.10M	U		B2=13.28		1976FLa (22009)	225
								B3=14.46		
								B4=15.52		

C2H6OS		L	DMSO				CAS 67-68-5		(329)	
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Dimethylsulfoxide; (CH3)2.SO

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

Cu+	ISE	non-aq	25°C	100%	U	H			1993LMa (22094)	226
								K(CuS4+L=CuS3L+S)=0.44		
								K(CuS4+2L=CuS2L2+2L)=-0.05		
								K(CuS4+3L=CuSL3+3S)=-0.61		

$$K(\text{CuS}_4+4\text{L}=\text{CuL}_4+4\text{S})=-2.13$$

Medium (S): MeCN. Also MeCN-DMSO mixtures.

C2H6O3S2 H2L CAS 3375-50-6 (1795)

(2-Mercaptoethyl)sulfonic acid; HS.CH2.CH2.SO3H

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

Cu+ gl mixed 20°C 4% U M 1976VKa (22165) 227

$$\text{Keff}=8.2$$

Medium: 4% CH3CN, 0.1 M NaClO4. Keff: Cu(CH3CN)4+L=Cu(CH3CN)3L+CH3CN

C2H7N L Ethylamine CAS 75-04-7 (156)

Ethylamine; CH3.CH2.NH2

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

Cu+ vlt KNO3 30°C 0.50M U B2=10.1 1967FHa (22270) 228

$$\text{B}(\text{CuL}(\text{OH}))=10.8$$

C2H7NO L Ethanolamine CAS 141-43-5 (1057)

2-Aminoethanol; H2N.CH2.CH2.OH

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

Cu+ vlt KNO3 30°C 2.0M U B2=9.41 1971SSe (22400) 229

Alternative method:EMF with Redox electrode

Cu+ vlt KNO3 30°C 2.0M U B2=9.51 1971SSe (22401) 230

C2H7NS HL CAS 60-23-1 (588)

2-Aminoethanethiol; H2N.CH2.CH2.SH

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

Cu+ sp NaClO4 20°C 1.00M U K1=10.80 B2=13.50 1978BKc (22489) 231

Cu+ gl mixed 20°C 4% U M 1976VKa (22490) 232

$$\text{Keff}=11.6$$

Medium: 4% CH3CN, 0.1 M NaClO4. Keff: Cu(CH3CN)4+L=Cu(CH3CN)2L+2CH3CN

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

Cu+ vlt KNO3 30°C 2.00M U B2=10.63 1971SSe (23144) 233

Cu+ EMF oth/un 25°C 0.30M U B2=11.4 1961JWa (23145) 234

Method: platinum electrode. Medium: K2SO4

Cu+ ISE oth/un 25°C ? U B2=10.8 1948BNa (23146) 235

C3H4N2 L Imidazole CAS 288-32-4 (90)
1,3-Diazole, imidazole; C3H4N2

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

Cu+ gl NaClO4 25°C 0.30M C T K1=5.78 B2=11.0 1997SJa (23874) 236
IUPAC evaluation

Cu+ vlt KNO3 25°C 0.20M U K1=11.1 1972CMc (23875) 237

Cu+ ISE oth/un 20°C 0.15M U K1=5.78 B2=10.98 1962HPa (23876) 238
Medium: Na2SO4

Cu+ EMF oth/un 25°C 0.30M U B2=10.44 1961JWa (23877) 239
Method: platinum electrode. Medium: K2SO4

Cu+ vlt KNO3 25°C 0.15M U B2=10.8 1954LWa (23878) 240

C3H4O2 HL Acrylic acid CAS 79-10-7 (2044)
Propenoic acid; CH2:CH.CO0H

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

Cu+ sp oth/un 23°C 1.00M U M 1973HLA (23983) 241
K(Cu+(NH3)5CoL)=4.60

C3H5Cl L Allyl chloride CAS 107-05-1 (3546)
3-Chloropropene; H2C:CH.CH2.Cl

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

Cu+ ISE oth/un 25°C ? U T HM 1965TFb (24637) 242
K(CuCl3+L)=0.00
K'(CuCl3+L=CuCl2L+Cl)=-0.05

5-25 C: K=0.89(5 C),0.43(15 C); K'=0.48(5 C),0.18(15 C).

At 25 C: DH(K)=-71.5 kJ mol⁻¹, DS=-238 J K⁻¹ mol⁻¹; DH(K')=-30, DS=-100

C3H6N2OS L CAS 591-08-2 (1423)
N-Acetylthiourea;CH3.CO.NH.CS.NH2

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

Cu+ vlt KCl 25°C 0.10M U B2=11.53 1976FLa (24771) 243
B3=12.75
B4=13.81

C3H6N2S L CAS 96-45-7 (386)

2-Imidazolidinethione; C3H6N2(:S)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	vlt	KCl	25°C	0.10M	U			B2=11.91 B3=13.52 B4=14.86	1976FLa (24835)	244

C3H6O HL Allyl alcohol CAS 107-18-6 (62)
Prop-2-en-1-ol; CH2:CH.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	vlt	NaClO4	25°C	0.10M	U			K1=4.7	1966MAd (24845)	245

Cu+	ISE	oth/un	25°C	?	U	T	HM		1965TFb (24846)	246
K(CuCl3+L=CuCl2L+Cl)=1.32 K'(CuCl2+L)=1.83 K=1.0(50 C), 0.80(70 C), 0.65(85 C); K'=1.72(50 C), 1.65(70 C), 1.6(85 C). At 25 C: DH(K)=-25.1 kJ mol ⁻¹ , DS=-58.5 J K ⁻¹ mol ⁻¹ , DH(K')=-8.4, DS=8.4										

Cu+	sol	KNO3	25°C	0.10M	U			K1=4.72	1949KAb (24847)	247
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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
Cu+	EMF	oth/un	25°C	0.30M	U			B2=9.6	1961JWa (26157)	248
Method: platinum electrode. Medium: K2SO4										

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	EMF	oth/un	25°C	0.30M	U			B2=9.2	1961JWa (26600)	249
Method:platinum electrode. Medium: K2SO4										

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
Cu+	gl	NaCl	25°C	1.00M	C	M			1997TMa (26766)	250

B(CuLA)=15.71
B(CuHLA)=25.89
B(Cu2HLA)=37.54
B(CuH4LB)=44.50

B(Cu2HLB)=38.29, B(Cu2H2LB2)=58.92. HA=penicillamine, H4B=glutathione

Cu+ sp NaClO4 20°C 1.00M U K1=11.38 1978BKc (26767) 251

Cu+ gl mixed 20°C 4% U M 1976VKa (26768) 252

Keff=14.0

Medium: 4% CH3CN/H2O, 0.1 M NaClO4. Keff: Cu(CH3CN)4+L=Cu(CH3CN)2L+2CH3CN

Cu+ vlt R4N.X 25°C 1.0M U K1=19.2 1951SKa (26769) 253

Medium; NH4Cl

C3H8N2S L DiMe-Thiourea CAS 61805-96-7 (1078)

1,3-Dimethylthiourea; CH3.NH.CS.NH.CH3

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

Cu+ vlt KCl 25°C 0.10M U B2=12.52 1976FLa (27626) 254

B3=13.91

B4=14.98

C3H8N2S L Ethyl-thiourea CAS 625-53-6 (1079)

N-Ethylthiourea; C2H5.NH.CS.NH2

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

Cu+ vlt oth/un 25°C 0.10M U B2=13.08 1976FLa (27632) 255

B3=14.41

B4=16.23

Medium: HCl

C3H8O3S3 H3L Unithiol CAS 74-61-3 (1271)

2,3-Dimercaptopropanesulfonic acid; HS.CH2.CH(SH).CH2.SO3H

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

Cu+ ISE KNO3 25°C 0.10M U 19680Fa (27784) 256

B(Cu2L2)=19.84

C3H9NS L CAS 18542-42-2 (1215)

1-Amino-3-thiabutane; H2N.CH2.CH2.S.CH3

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

Cu+ ISE oth/un 20°C 0.15M U K1=5.65 B2=10.98 1962HPa (27944) 257

Medium: Na2SO4

C3H9NS HL CAS 10229-29-5 (2596)

2-Aminopropanethiol; H2N.CH(CH3).CH2.SH.

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

Cu+ sp NaClO4 20°C 1.00M U K1=10.08 1978BKc (27945) 258

C3H9NS HL CAS 462-47-5 (1566)
3-Aminopropane-1-thiol; H2N.CH2.CH2.CH2.SH

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

Cu+ sp NaClO4 20°C 1.00M U K1=11.92 B2=15.12 1978BKc (27952) 259

C3H9NS HL CAS 10061-40-2 (2593)
N-Methyl-2-aminoethanethiol; CH3.NH.CH2.CH2.SH

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

Cu+ sp NaClO4 20°C 1.00M U K1=10.77 B2=13.92 1978BKc (27957) 260

C4H2N2 L CAS 764-42-1 (8583)
Fumaronitrile;

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

Cu+ kin KCl 25°C 0.14M C K1=2.93 B2= 3.30 2002KJa (28614) 261

C4H3N2O2I H2L 5-Iodouracil CAS 696-07-1 (8652)
5-Iodo-2,4-dihydroxypyrimidine;

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

Cu+ gl NaNO3 25°C 0.10M C M 2000SSd (28701) 262

K(Co+HL)=6.88
K(Cu+L+OH)=18.02
K(Cu+L+2OH)=20.23
K(CuLOH+OH)=3.08

Also data for ternary complexes.

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

Cu+ kin KCl 25°C 0.14M C 2002KJa (29063) 263

K(Cu+HL)=4.25
K(Cu+H2L)=3.34

Cu+ sol NaClO4 25°C 0.10M U K1=3.05 1949KAa (29064) 264

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

Cu+ kin KCl 25°C 0.14M C K1=3.86 2002KJa (29188) 265

Cu+ sp NaClO4 23°C 1.00M U T 1973HLA (29189) 266
K(Cu+(NH3)5CoL)=3.64
K(5 C)=4.18, K(40 C)=3.18

Cu+ sol NaClO4 25°C 0.10M U K1=3.96 1949KAa (29190) 267

C4H6N2 L 2-Me-Imidazole CAS 693-98-1 (122)
2-Methyl-1,3-diazole; C3H3N2.CH3

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

Cu+ gl mixed 20°C 4% U K1=4.94 B2=11.93 1977GZa (29479) 268
Medium: 0.15 M MeCN, 0.2 Na2SO4

C4H6N2 L Diacetonitrile CAS 1118-61-2 (4251)
3-Aminocrotononitrile; CH3.C(NH2):CH.CN

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

Cu+ vlt non-aq 25°C 100% U B2=11.0 1969PIa (29490) 269
B3=13.3
Medium: propylene carbonate, 0.1 M Me4NClO4

Cu+ ISE non-aq 25°C 100% U 1969PIa (29491) 270
B3=13.5
Medium: propylene carbonate, 0.1 M Me4NClO4

C4H6N2 L N-Me-Imidazole CAS 616-47-7 (354)
N-Methyl-1,3-diazole; C3H3N2.CH3

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

Cu+ sp non-aq 30°C 100% U M 1977GAb (29583) 271
K(CuA+L)=1.20
Medium: Acetone. MA=Difluoro-3,3'-(trimethylenedinitrilo)bis(2-butanone oximato) borate-copper(I)

Cu+ gl oth/un 20°C 0.20M U B2=11.45 1969ZUa (29584) 272

C4H6O L CAS 627-41-8 (4248)
3-Methoxyprop-1-yne; HCC.CH2.OCH3

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

Cu+ sp mixed ? 1.6% U 1992MKa (29692) 273
K(Cu(phen)+L)=1.7
Medium 1.56% v/v MeCN/acetone.

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

Cu+ sol NaClO4 25°C 0.10M U K1=3.20 1949KAa (29715) 274

C4H8N2 L CAS 19355-69-2 (4254)

3-Aminobutyronitrile; CH3.CH(NH2).CH2.CN

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

Cu+ vlt non-aq 25°C 100% U B2=15.3 1969PIa (32472) 275

Medium: propylene carbonate, 0.1 M Me4NClO4

Cu+ ISE non-aq 25°C 100% U B2=15.1 1969PIa (32473) 276

Medium: propylene carbonate, 0.1 M Me4NClO4

C4H8N2S L Thiosinamine CAS 109-57-9 (2377)

1-Allylthiourea; CH2:CH.CH2.NH.CS.NH2

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

Cu+ vlt KCl 25°C 0.10M U B2=13.18 1976FLa (33155) 277

B3=14.58

B4=15.90

C4H8N2S HL CAS 2055-46-1 (1522)

3,4,5,6-Tetrahydro-pyrimidine-2-thiol; C4H7N2.SH

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

Cu+ vlt KCl 25°C 0.10M U B2=12.79 1976FLa (33162) 278

B3=14.98

B4=16.43

C4H8N2S L CAS 2122-19-2 (2372)

4-Methylimidazolidine-2-thione, 4-Methyl-N,N'-ethylenethiourea

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

Cu+ vlt KCl 25°C 0.10M U B2=12.43 1976FLa (33165) 279

B3=13.78

B4=15.11

C4H8O L CAS 56640-70-1 (2994)

1-Methylallyl alcohol; CH2:CH.CH(CH3)OH

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

 Cu+ sol NaClO4 25°C 0.10M U K1=4.52 1949KAb (33173) 280

 C4H8O L CAS 513-42-8 (2995)
 2-Methylallyl alcohol; CH2:C(CH3).CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	sol	oth/un	25°C	0.10M	U			K1=3.96	1949KAb (33176)	281

C4H8O	L							Crotyl alcohol	CAS 6117-91-5	(2993)
But-2-en-1-ol; CH3.CH:CH.CH2.OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	nmr	oth/un	30°C	var	U	HM			1972IOa (33182)	282
K(2cis-L+M(trans-L)2(H2O)=2trans-L+M(cis-L)2(H2O))=0.91. DH=-13.1 kJ mol-1										

 Cu+ sol KNO3 25°C 0.10M U K1=4.00 1949KAb (33183) 283

 C4H9NO2S HL CAS 88806-98-8 (3019)
 2-Amino-3-mercaptopropanoic acid methyl ester, cysteine methyl ester;
 HSCH2CH(NH2)COOCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	gl	mixed	20°C	4%	U	M			1976VKa (34056)	284
Keff=13.6										
Medium: 4% CH3CN/H2O, 0.1 M NaClO4. Keff: Cu(CH3CN)4+L=Cu(CH3CN)2L+2CH3CN										

C4H9NO2S	HL								CAS 29768-80-7	(2597)
2-Amino-4-mercaptopbutanoic acid; HOOC.CH(NH2).CH2.CH2.SH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	sp	NaClO4	20°C	1.00M	U			K1=11.89	1978BKc (34112)	285

C4H10O2S2	H2L							Dithiothreitol	CAS 3483-12-3	(8164)
Threo-2,3-Dihydroxy-1,4-dithiobutane										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	gl	KNO3	25°C	0.10M	C			K1=15.3 B2=24.64	2001KLb (34695)	286
B(Cu3L4)=70.26										
B(Cu2L3)=48.9										

C4H11N	L							Butylamine	CAS 109-73-9	(159)
1-Aminobutane; CH3.CH2.CH2.CH2.NH2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu+ EMF non-aq 25°C 100% C I K1=2.47 B2= 4.63 1999THa (34762) 287
Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.
Also data for medium: DMSO

C4H11NO L CAS 5332-73-0 (5421)
3-Methoxypropylamine; CH3O.CH2.CH2.CH2.NH2

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

Cu+ vlt KNO3 25°C 1.0M U K2=10.47 1994KNa (34854) 288
Method: Pseudopolarography with differential pulse anodic stripping voltam.

C4H11NO2 L Diethanolamine CAS 111-42-2 (89)
2,2'-Iminodiethanol; HN(CH2.CH2.OH)2

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

Cu+ vlt KNO3 30°C 2.00M U B2=7.51 1971SSe (34956) 289
B2=7.98 from shift in E(1/2)

C4H11NS HL CAS 4104-45-4 (1790)
1-Amino-2-methyl-2-mercaptopropane; H2N.CH2.C(CH3)(SH).CH3

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

Cu+ sp NaClO4 20°C 1.00M U K1=9.92 1978BKc (35118) 290

Cu+ gl mixed 20°C 4% U M 1976VKa (35119) 291
Keff=16.2

Medium: 4% CH3CN/H2O, 0.1 M NaClO4. Keff: Cu(CH3CN)4+L=Cu(CH3CN)2L+2CH3CN

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

Cu+ sp NaClO4 20°C 1.00M U K1=10.63 B2=14.71 1978BKc (35134) 292

Cu+ gl mixed 20°C 4% U M 1976VKa (35135) 293
Keff=13.5

Medium: 4% CH3CN/H2O, 0.1 M NaClO4. Keff: Cu(CH3CN)4+L=Cu(CH3CN)2L+2CH3CN

C4H11NS HL CAS 21100-03-8 (2592)
4-Aminobutanethiol; H2N.CH2.CH2.CH2.SH

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

Cu+ sp NaClO4 20°C 1.00M U K1=11.90 B2=15.20 1978BKc (35143) 294

C4H13N3 L Dien CAS 111-40-0 (584)
 1,4,7-Triazaheptane, 2,2'Iminobis(ethylamine), diethylenetriamine;
 NH2.(CH2)2.NH.(CH2)2.NH2

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

 Cu+ gl NaClO4 25°C 0.15M U K1=<10 1999NGa (35771) 295

C5H5N L Pyridine CAS 110-86-1 (31)
 Pyridine, Azine;

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

 Cu+ ISE non-aq 20°C 100% C K1=1.85 B2=2.52 1987DAa (36613) 296
 B3=3.26

Medium: MeCN, 0.1 M Me4NClO4

 Cu+ gl NaNO3 20°C 1.00M C B2=9.45 1978CPa (36614) 297
 K(Cu+2HL)=6.75
 B(CuL(OH))=10.05

 Cu+ vlt NaNO3 20°C 1.00M U K1=4.84 B2=7.59 1973CPa (36615) 298
 B3=8.17
 B4=8.51

 Cu+ vlt R4N.X 30°C 2.0M U B2=8.14 1966GCa (36616) 299
 Medium: 2.0 M NH4NO3, 0.1 C5H5NHCl

 Cu+ EMF oth/un 20°C 0.15M U K1=3.17 B2=6.64 1962HPa (36617) 300
 Method: platinum electrode. Medium: Na2SO4

 Cu+ EMF oth/un 25°C 0.30M U K1=3.9 B2=6.60 1961JWa (36618) 301
 K3=1.3
 K4=0.8
 B3=8.29

Method: platinum electrode. Medium: K2SO4

 Cu+ vlt oth/un ? ? U B2=3.3 ? 1950KMa (36619) 302

C5H5N5O HL Guanine CAS 73-40-5 (5387)
 2-Amino-6-hydroxypurine;

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

 Cu+ gl NaNO3 37°C 0.10M U M K1=9.89 1994MGd (36997) 303
 B(CuAL)=13.48
 *K(CuAL)=-6.94
 *K(Cu(OH)AL)=-8.12

HA is 6-aminopenicillanic acid.

C5H6N2 L 2-Aminopyridine CAS 504-29-0 (1478)
2-Aminoazine, 2-Pyridylamine; C5H4N.NH2

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

Cu+ gl NaNO3 20°C 1.00M C K1=5.28 B2=8.00 1978CPa (37126) 304

Cu+ vlt NaNO3 20°C 1.00M U K1=5.28 B2=8.00 1972CPe (37127) 305

C5H6N2 L 3-Aminopyridine CAS 462-08-8 (1477)
3-Aminoazine, 3-Pyridylamine; C5H4N.NH2

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

Cu+ gl NaNO3 20°C 1.00M C B2=7.97 1978CPa (37162) 306

C5H6N2 L 4-Aminopyridine CAS 504-24-5 (1356)
4-Aminoazine, 4-Pyridylamine; C5H4N.NH2

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

Cu+ gl NaNO3 20°C 1.00M C K1=7.03 B2=10.53 1978CPa (37176) 307

Cu+ vlt NaNO3 20°C 1.00M U K1=7.03 B2=10.53 1972CPe (37177) 308

C5H8 L Cyclopentene CAS 142-29-0 (4289)
Cyclopentene; cyclo(-CH2.CH2.CH:CH.CH2-)

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

Cu+ ISE non-aq 30°C 100% U K1=2.86 1969HAb (37600) 309
Medium: 2=PrOH, 1.0 M LiClO4

C5H8N2 L CAS 1759-84-0 (173)
1,2-Dimethylimidazole; C3H2N2(CH3)2

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

Cu+ gl mixed 20°C 4% U K1=4.90 B2=11.83 1977GZa (37623) 310
Medium: 0.15 M MeCN, 0.2 Na2SO4

C5H8N2 L CAS 1072-62-4 (929)
2-Ethylimidazole; C3H3N2.C2H5

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

Cu+ gl mixed 20°C 4% U K1=4.78 B2=11.82 1977GZa (37663) 311
Medium: 0.15 M MeCN, 0.2 Na2SO4

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
Cu+	gl	NaClO4	20°C	0.20M	U			K(Cu+HL)=3.55 K(CuHL+HL)=2.88 K(CuL+H)=7.94	1970ZUb (39533)	312
Medium: 0.2 NaClO4, 0.37 CH3CN										

Cu+	gl	NaClO4	25°C	0.10M	U			K1=8.87 K(Cu+2HL)=10.32	1966KZb (39534)	313
Medium 0.19 M CH3CN, 0.1 M NaClO4										

 C5H10N2OS L CAS 932-49-0 (2375)
 1-(2-Hydroxyethyl)imidazolidine-2-thione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	vlt	KCl	25°C	0.10M	U			B2=11.34 B3=13.00 B4=14.08	1976FLa (39696)	314

 C5H10N2OS L (2376)
 Tetrahydro-3,5-dimethyl-4H-1,3,5-oxadiazine-4-thione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	vlt	KCl	25°C	0.10M	U			B2=11.32 B3=12.87 B4=14.15	1976FLa (39697)	315

 C5H10N2OS L CAS 29061-28-7 (2621)
 4,5-Dimethoxyimidazolidine-2-thione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	ISE	mixed	25°C	82%	U			K1=8.95 B2=11.04	1980TBa (39727)	316
Medium: 82% v/v DMFA/H2O; 0.2 M KNO3										

 C5H10N2S L CAS 6086-42-6 (2373)
 4,4-Dimethylimidazolidine-2-thione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	vlt	KCl	25°C	0.10M	U			B2=12.04 B3=13.65 B4=15.18	1976FLa (40122)	317

 C5H10O L Pent-1-en-3-ol CAS 616-25-1 (3024)

1-Penten-3-ol; CH₃.CH₂.CH(OH)CH:CH₂

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

Cu+ sol NaClO₄ 25°C 0.10M U K1=4.52 1949KAb (40142) 318

C5H10O L CAS 4675-87-0 (3025)
2-Methylbut-2-en-1-ol; CH₃.CH:C(CH₃)CH.OH

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

Cu+ sol NaClO₄ 25°C 0.10M U K1=3.55 1949KAb (40144) 319

C5H11N L Piperidine CAS 110-89-4 (105)
Perhydropyridine; cyclo(-CH₂.CH₂.CH₂.NH.CH₂.CH₂-) C5H11N

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

Cu+ vlt KNO₃ 25°C 1.0M U K1= 8.29 B2=9.89 1994KNa (40445) 320
B(Cu(OH)2L2)=16.67
Method: Pseudopolarography with differential pulse anodic stripping voltam.

C5H11NO₂S H2L D-Penicillamine CAS 52-67-5 (1323)
D-2-Amino-3-mercapto-3-methylbutanoic acid; (CH₃)₂C(SH)CH(NH₂)COOH

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

Cu+ ISE NaClO₄ 25°C 0.50M C 19790Lb (41183) 321
B(CuH₂L₂)=39.18
B(Cu₅L₄)=101.5

Cu+ sp NaClO₄ 20°C 1.00M U K1=11.89 1978BKc (41184) 322

C5H11NO₂S H2L Penicillamine CAS 52-66-4 (350)
DL-2-Amino-3-mercapto-3-methylbutanoic acid; (CH₃)₂C(SH)CH(NH₂)COOH

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

Cu+ gl NaCl 25°C 1.00M C M 1997TMa (41255) 323
B(Cu(Cys)L)=15.708
B(CuH(Cys)L)=25.887
B(Cu₂H(Cys)L)=37.54

Cu+ gl NaCl 25°C 1.00M U K1=12.25 B2=15.44 1993HMc (41256) 324
B(CuHL)=18.34
B(Cu₄L₃)=49.15

Cu+ vlt R4N.X 25°C 0.10M U K1=19.53 1968VBc (41257) 325
Medium: NH₄Cl

C5H11N3S L CAS 40778-59-4 (2374)
1-(2-Aminoethyl)imidazolidine-2-thione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	vlt	KCl	25°C	0.10M	U			B2=10.28 B3=11.66 B4=12.86	1976FLa (41392)	326

C5H12N2S L CAS 105-55-5 (2379)
1,3-Diethylthiourea; C2H5.NH.CS.NH.C2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	vlt	oth/un	25°C	0.10M	U			B2=14.04 B3=15.00 B4=15.87	1976FLa (41622)	327

Medium: HCl

C5H14NS HL Thiocholine CAS 625-00-3 (2594)
N,N,N-Trimethyl-2-nitriloethanethiol; (CH3)3N.CH2.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	sp	NaClO4	20°C	1.00M	U			K1=10.28 B2=14.58	1978BKc (41848)	328
Cu+	gl	mixed	20°C	4%	U	M		Keff=7.4	1976VKa (41849)	329

Medium: 4% CH3CN, 0.1 M NaClO4. Keff: Cu(CH3CN)4+L=Cu(CH3CN)3L+CH3CN

C6H4N2 L CAS 100-70-9 (498)
2-Cyanopyridine; C5H4N.CN

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	vlt	non-aq	25°C	100%	U			B2=8.7	1969PIa (42180)	330

Medium: propylene carbonate, 0.1 M Me4NClO4

Cu+	ISE	non-aq	25°C	100%	U			B2=9.0	1969PIa (42181)	331
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Medium: propylene carbonate, 0.1 M Me4NClO4

C6H4N2 L CAS 100-54-9 (3055)
3-Cyanopyridine (nicotinonitrile); C5H4N.CN

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	vlt	non-aq	25°C	100%	U			B2=10.6	1969PIa (42185)	332

Medium: propylene carbonate, 0.1 M Me4NClO4

Cu+	ISE	non-aq	25°C	100%	U			B2=10.7	1969PIa (42186)	333
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Medium: propylene carbonate, 0.1 M Me4NC104

C6H4N2 L CAS 100-48-1 (321)
4-Cyanopyridine; C5H4N.CN

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

Cu+ vlt non-aq 25°C 100% U B2=10.7 1969PIa (42199) 334
B3=13.0

Medium: propylene carbonate, 0.1 M Me4NC104

Cu+ ISE non-aq 25°C 100% U B3=12.3 1969PIa (42200) 335

Medium: propylene carbonate, 0.1 M Me4NC104

C6H4N2O5 HL CAS 50-28-5 (505)
2,4-Dinitrophenol; HO.C6H3(NO2)2

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

Cu+ sp oth/un 21°C 0.40M U B2=2.27 1955BKa (42227) 336
Medium:0.2-0.7(some EtOH)

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

Cu+ vlt diox/w 25°C 50% U B2=6.15 1966WRb (42514) 337
Medium: 50% dioxan, 0.1 M KNO3

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

Cu+ vlt NaClO4 22°C 0.20M U Keff(Cu+L)=3.5 1999SBa (42799) 338

Keff at pH 6.0.

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

Cu+ EMF NaNO3 20°C 0.50M U B2=14.4 1973PEa (43291) 339
K(Cu+2HL)=11.05

Cu+ vlt oth/un 25°C ? U B2=14.48 1961LLa (43292) 340
0.2 phosphate buffer

 Cu+ vlt NaNO3 20°C 0.50M U B2=7.15 1973PEa (44984) 347

 C6H8 L CAS 628-41-1 (4343)
 1,4-Cyclohexadiene;

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

 Cu+ ISE non-aq 30°C 100% U K1=2.53 1969HAb (45237) 348
 Medium: 2-PrOH, 1.0 M LiClO4

 C6H8N2 L 2-Picolylamine CAS 29722-36-9 (502)
 2-(Aminomethyl)pyridine; C5H4N.CH2NH2

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

 Cu+ vlt diox/w 25°C 50% U B2=10.66 1966WRb (45352) 349
 Medium: 50% dioxan, 0.1 M KNO3

 C6H8N2 L 3-Picolylamine CAS 3731-51-9 (6095)
 3-(Aminomethyl)pyridine;

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

 Cu+ vlt NaNO3 20°C 1.00M C B2=9.45 1978CPa (45378) 350
 K(Cu+2HL)=6.75
 B(CuLOH)=10.05

 C6H8O4 L CAS 624-49-7 (8582)
 Dimethyl fumarate;

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

 Cu+ kin KCl 25°C 0.14M C K1=3.79 2002KJa (45522) 351

 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

 Cu+ gl NaClO4 25°C 0.20M U 1970ZUb (47540) 352
 K(Cu+HL)=3.65
 K(CuHL+HL)=3.25
 K(CuL+H)=6.60
 Medium: 0.2 NaClO4, 0.076 CH3CN

 C6H10 L Cyclohexene CAS 110-83-8 (3054)
 Cyclohexene; C6H10

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

Cu+ ISE non-aq 30°C 100% U K1=2.09 1969HAb (47668) 353
Medium: 2-PrOH, 1.0 M LiClO4

C6H10N2 L CAS 1842-63-3 (927)
1,2,4-Trimethylimidazole; C3HN2(CH3)3

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

Cu+ gl mixed 20°C 4% U K1=4.76 B2=11.88 1977GZa (47672) 354
Medium: 0.15 M MeCN, 0.2 Na2S04

C6H10N2 L CAS 5709-61-5 (928)
1-Methyl-2-ethylimidazole; C3H2N2(CH3)(C2H5)

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

Cu+ gl mixed 20°C 4% U K1=4.69 B2=11.51 1977GZa (47674) 355
Medium: 0.15 M MeCN, 0.2 Na2S04

C6H10N4OS L (6141)
2,4-Dimethyl-2,4,6,8-tetraazobicyclo(3,3,0)octa-3-one-7-thione;

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

Cu+ ISE mixed 25°C 82% U K1=8.56 B2=10.85 1980TBa (47884) 356
Medium: 82% v/v DMFA/H2O; 0.2 M KNO3

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

Cu+ con KCl 25°C 0.10M U B2=11.16 1976POa (48237) 357

Cu+ oth oth/un 25°C 0.30M U 1961JWa (48238) 358
Bn=4.37+2.9n
K(CuHL+H)=2.44(?)
K(CuL+H)=2.71(?)

Method: platinum electrode. Medium: K2S04

C6H11N3O4 HL Gly-Gly-Gly CAS 556-33-2 (415)
Glycyl-glycyl-glycine; H2N.CH2.CO.NH.CH2.CO.NH.CH2.COOH

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

Cu+ ISE NaClO4 25°C 3.00M U 19700Sa (48973) 359
Metal ion: Cu+/Cu++. K(Cu(I)+Cu(II)+2L=Cu2H-3L2+3H)=-3.35

Cu+ ISE NaClO4 25°C 3.00M U K1=6.2 19700Sa (48974) 360

 C6H12O L CAS 2004-67-3 (3075)
 4-Methylpent-4-en-2-ol; CH₂:C(CH₃)CH₂.CH(OH)CH₃

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

 Cu+ sol KNO₃ 25°C 0.10M U K1=4.2 1949KAb (49405) 361

 C6H14S L Isopropyl sulfi CAS 625-80-9 (5674)
 2,2'-Thiodipropane, diisopropyl sulfide; (CH₃)₂CH-S-CH(CH₃)₂

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

 Cu+ ISE non-aq 25°C 100% U K1=1.32 B2=2.29 1983MMc (51137) 362
 B3=2.91
 B4=3.17

Medium: MeCN. Data also for other dialkyl sulphides

C6H15NO₃ Triethanolamine CAS 102-71-6 (447)
 Tris-(2-hydroxyethyl)amine; L

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

 Cu+ vlt KNO₃ 30°C 2.00M U B2=4.39 1971SSe (51288) 363

Data also obtained by e.m.f. with redox electrode

C6H15NS HL CAS 1942-52-5 (2595)
 2-(Diethylamino)ethanethiol; (CH₃.CH₂)₂N.CH₂.CH₂.SH

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

 Cu+ sp NaClO₄ 20°C 1.00M U K1=10.76 1978BKc (51352) 364

 C6H15N₃ L CAS 4730-54-5 (26)
 1,4,7-Triazacyclononane; cyclo(-NH.CH₂.CH₂.NH.CH₂.CH₂.NH.CH₂.CH₂-)

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

 Cu+ gl mixed 20°C var U 1987BKc (51406) 365

K(Cu(CH₃CN)+L)=10.93
 K(Cu(CH₃CN)+HL)=5.63

Medium: 1-4% v/v MeCN/H₂O, 0.2 M Na₂S₂O₄

 Cu+ gl mixed 25°C 16% C K1=8.28 1980GMe (51407) 366
 K(Cu+HL)=3.79

Medium: 16% acetonitrile/H₂O, 0.20 M Na₂S₂O₄.

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
Cu+	gl	NaClO4	25°C	0.15M	U		K1=<12	1999NGa (52095)	367
Cu+	gl	NaClO4	25°C	0.15M	U		K1=<12	1995GCa (52096)	368

C7H02F5			HL				CAS 602-94-8	(2954)	
2,3,4,5,6-Pentafluorobenzoic acid; C6F5.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	sp	NaClO4	22°C	0.20M	U			1999SBa (52379)	369
							Keff(Cu+L)=2.0		
Keff at pH 3.0.									

C7H5O2Br			HL				CAS 585-76-2	(1366)	
3-Brombenzoic acid; Br.C6H4.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	vlt	NaClO4	22°C	0.20M	U			1999SBa (53107)	370
							Keff(Cu+L)=3.9		
Keff at pH 4.0.									

C7H5O2Cl			HL				CAS 118-91-2	(2519)	
2-Chlorobenzoic acid; Cl.C6H4.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	vlt	NaClO4	22°C	0.20M	U			1999SBa (53145)	371
							Keff(Cu+L)=3.7		
Keff at pH 4.0.									

C7H6N2			L			Benzimidazole	CAS 51-17-2	(52)	
Benzimidazole; C7H6N2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	ISE	oth/un	20°C	0.15M	U		K1=4.47 B2=9.73	1962HPa (53471)	372
Also platinum electrode. Medium: Na2SO4									

C7H6O2			HL			Benzoic Acid	CAS 65-85-0	(462)	
Benzenecarboxylic acid; C6H5.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	vlt	NaClO4	22°C	0.20M	U			1999SBa (53827)	373
							Keff(Cu+L)=3.7		
Keff at pH 4.0.									

C7H6O3 H2L Salicylic acid CAS 69-72-7 (14)
2-Hydroxybenzoic acid, Salicylic acid; HO.C6H4.COOH

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

Cu+ vlt NaClO4 22°C 0.20M U 1999SBa (54183) 374

Keff(Cu+L)=2.8

Keff at pH 4.0.

C7H8 L CAS 121-46-0 (4403)
2,5-Norbornadiene (bicyclo[2.2.1]hepta-2,5-diene);

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

Cu+ ISE non-aq 30°C 100% U K1=4.11 1969HAb (55778) 375

Medium: 2-propanol, 1.0 M LiClO4

C7H10 L Norbornylene CAS 498-66-8 (4404)
2-Norbornene (bicyclo[2.2.1]hept-2-ene);

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

Cu+ ISE non-aq 30°C 100% U K1=4.26 1969HAb (56531) 376

Medium: 2-propanol, 1.0 M LiClO4

C7H10N2 L CAS 2706-56-1 (2748)
2-(2'-Aminoethyl)pyridine; C5H4N.CH2CH2NH2

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

Cu+ gl NaNO3 20°C 1.00M C B2=10.90 1978CPa (56592) 377

C7H10N2 L CAS 42088-91-5 (3134)
2-(Methylaminomethyl)pyridine (2-Picolylmethylamine)

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

Cu+ vlt diox/w 25°C 50% U B2=11.40 1966WRb (56611) 378

Medium: 50% dioxan, 0.1 M KNO3

C7H10N2 L CAS 6627-60-7 (3729)
6-Methyl-2-(aminomethyl)pyridine; CH3.C5H3N.CH2.NH2

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

Cu+ vlt diox/w 25°C 50% U B2=12.04 1966WRb (56656) 379

Medium: 50% dioxan, 0.1 M KNO3

C7H12 L Cycloheptene CAS 628-92-2 (4405)
Cycloheptene; C7H12

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        ISE non-aq 30°C 100% U      K1=3.02      1969HAb (57031) 380
Medium: 2-propanol, 1.0 M LiClO4
*****
C7H12N2    L                      (926)
1,2,4,5-Tetramethylimidazole; C3N2.(CH3)4
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        gl mixed 20°C 4% U      K1=4.87 B2=12.23 1977GZa (57034) 381
Medium: 0.15 M MeCN, 0.2 Na2SO4
*****
C7H12N2S   L                      CAS 6601-20-3 (2378)
1,3-Diallylthiourea; CH2:CH.CH2.NH.CS.NH.CH2.CH:CH2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        vlt KCl 25°C 0.10M U      B2=13.00     1976FLa (57189) 382
                    B3=14.43
                    B4=15.58
*****
C7H15NS    HL                      CAS 59681-08-2 (1791)
1-Mercapto-1-aminomethylcyclohexane; HS.C6H10.CH2NH2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        gl mixed 20°C 4% U      M      Keff=18.6     1976VKa (58010) 383
Medium: 4% CH3CN/H2O, 0.1 M NaClO4. Keff: Cu(CH3CN)4+L=Cu(CH3CN)2L+2CH3CN
*****
C7H17N3    L                      (101)
1,4,7-Triazacyclodecane; cyclo(.NHCH2CH2NHCH2CH2NHCH2CH2CH2.)
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        gl mixed 20°C var U      K(Cu(CH3CN)+L)=10.85     1987BKc (58224) 384
                    K(Cu(CH3CN)+HL)=2.80
Medium: 1-4% v/v MeCN/H2O, 0.2 M Na2SO4
*****
C7H17N3    L                      CAS 6066-26-8 (7671)
N-(2-Aminoethyl)-N'-2-propenyl-1,2-diaminoethane;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        gl NaClO4 25°C 0.15M U      K1=11.94     1999NGa (58231) 385
*****
C7H20N4    L                      CAS 4741-99-5 (12)
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C8H12N2 H2L CAS 6971-57-9 (1099)
6-Methyl-2-(methylaminomethyl)pyridine; (CH3.NH.CH2)(CH3)C5H3N

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

Cu+ vlt diox/w 25°C 50% U B2=12.14 1966WRb (61371) 392
Medium: 50% dioxan, 0.1 M KNO3

C8H12N4O3 HL Gly-His CAS 3486-76-8 (273)
Glycyl-histidine; H2N.CH2.CO.NH.CH(CH2.C3H3N2).COOH

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

Cu+ gl oth/un 25°C 0.10M U K1=8.61 1966KZb (61593) 393
K(Cu+2HL)=11.57
K(CuL+Cu)=4.8

Medium: 0.1 M NaClO4, 0.19 M CH3CN

C8H14 L CAS 931-88-4 (4472)
cis-Cyclooctene; C8H14

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

Cu+ ISE non-aq 30°C 100% U K1=3.46 1969HAb (61882) 394
Medium: 2-propanol, 0.1 M LiClO4

C8H16S4 L 12-Ane-S4 CAS 25423-56-7 (1747)
1,4,7,10-Tetrathiacyclododecane; cyclo(-S.(CH2.CH2.S)3.CH2.CH2-)

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

Cu+ vlt non-aq 23°C 100% M K1=8.5 1999TLA (62741) 395
Medium: 1,2-Dichloroethane. Method: cyclic voltammetry.

Cu+ oth NaClO4 25°C 0.10M U K1=<12.8 1991BSb (62742) 396
By cyclic voltammetry on the Cu++ complex.

C8H17NO3 L CAS 41775-76-2 (6751)
10-Aza-1,4,7-trioxacyclododecane;

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

Cu+ EMF non-aq 25°C 100% C K1=2.35 B2= 3.98 1999THa (62761) 397
Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.

Cu+ EMF non-aq 25°C 100% U K1=3.69 B2= 6.88 1998HTb (62762) 398
Medium: DMSO. Method: Cu(Hg)/Cu+ electrode

C8H18N2S2 L Cis-12aneN2S2 CAS 88439-31-0 (786)
1,4-Diaza-7,10-dithia-cyclododecane; cyclo(-NH.C2H4.NH.C2H4.S.C2H4.S.C2H4-)

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

Cu+ gl mixed 20°C var C M K1=13.14 1984BKa (62931) 399
K(Cu(CH3CN)+HL)=7.00

Medium: 1-2% MeCN/H2O, 0.2 M Na2SO4

C8H18N2S2 L Trans-12aneN2S2 CAS 65113-45-3 (787)
1,7-Diaza-4,10-dithia-cyclododecane; cyclo(-NH.C2H4.S.C2H4.NH.C2H4.S.C2H4-)

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

Cu+ gl mixed 20°C var C M K1=12.33 1984BKa (62936) 400
K(Cu(CH3CN)+HL)=6.49

Medium: 1-4% MeCN/H2O, 0.2 M Na2SO4

C8H19N L CAS 111-92-2 (849)
Dibutylamine, 5-azanonane; (C4H9)2NH

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

Cu+ EMF non-aq 25°C 100% C I K1=1.87 B2= 3.35 1999THa (63022) 401
Medium: acetonitrile. method: Cu(Hg)/Cu+ electrode.
Also data for medium: DMSO

C8H19N3 L (5967)
1,4,7-Triazacycloundecane;

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

Cu+ gl mixed 20°C var U 1987BKc (63101) 402
K(Cu(CH3CN)+L)=9.05
K(Cu(CH3CN)+HL)=2.55

Medium: 1-4% v/v MeCN/H2O, 0.2 M Na2SO4

C8H19N3 L CAS 36532-31-7 (2403)
1,4,8-Triazacycloundecane; cyclo(-NH.C2H4.NH.C3H6.NH.C3H6-)

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

Cu+ vlt NaClO4 25°C 0.20M C M 1997K0a (63111) 403
K(CuL+SCN)=14.94
K(CuL+Im)=13.88
K(CuL+CH3CN)=14.48

Method: polarography.

Cu+ gl mixed 20°C var U 1987BKc (63112) 404
K(Cu(CH3CN)+L)=10.33
K(Cu(CH3CN)+HL)=4.50

Medium: 1-4% v/v MeCN/H2O, 0.2 M Na2SO4

 C8H19N3S L CAS 87071-53-2 (719)
 1-Thia-4,7,10-triazacyclododecane; cyclo(-S.(C2H4.NH)3.C2H4-)

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

 Cu+ gl NaCl04 25°C 0.20M C M 1997K0a (63144) 405
 K(CuL+SCN)=13.82
 K(CuL+CH3CN)=13.34

 C8H20N2S2 L (5954)
 2,11-Dithia-5,8-diazadodecane; CH3.S.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2.S.CH3

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

 Cu+ gl mixed 20°C var U K1=14.33 1986KKc (63243) 406
 K(Cu+HL)=8.92
 K(Cu(CH3CN)+H2L)=3.16

Medium: 1-4% MeCN, 0.2 M Na2S04

 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

 Cu+ vlt NaCl04 25°C 0.15M U K1=<13 1995GCa (63401) 407
 Method: cyclic voltammetry.

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

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

 Cu+ oth diox/w 25°C 50% U B2=14.7 1961JWa (64246) 408
 Method: platinum electrode. Medium: 50% dioxan, 0.3 M KNO3

 C9H8N4O4S2 H2L (2879)
 Indol-2,3-dione-3-thiosemicarbazone-5-sulfonic acid;

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

 Cu+ ISE KNO3 37°C 0.15M C B2=17.85 1981STa (64861) 409
 B(CuHL2)=25.14
 B(CuH2L2)=30.92

 C9H10N2O2S L CAS 622-97-9 (2600)
 1-Phenyl-4,5-dihydroxyimidazolidine-2-thione;

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

Cu+ ISE mixed 25°C 82% U K1=8.85 B2=10.61 1980TBa (65244) 410

Medium: 82% v/v DMFA/H2O; 0.2 M KNO3

C9H14N4O3 HL Carnosine CAS 305-84-0 (272)

3-Alanyl-histidine; H2N.CH2.CH2.CO.NH.CH(CH2.C3H3N2).COOH

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

Cu+ gl NaClO4 25°C 0.10M U K1=10.55 1966KZb (67315) 411

K(Cu+2HL)=11.62

Medium: 0.1 M NaClO4, 0.19 M CH3CN

C9H15N3 L CAS 60354-75-8 (6081)

2,6-Di(2-aminoethyl)pyridine;

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

Cu+ gl NaNO3 20°C 1.00M C K1=11.34 1978CPa (67541) 412

Cu+ vlt NaNO3 20°C 1.00M C K1=11.4 1976CFa (67542) 413

C9H18S4 L 13-Ane-S4 CAS 25423-54-5 (1746)

1,4,7,10-Tetrathiacyclotridecane; cyclo(-S.(CH2.CH2.S)3.CH2.CH2.CH2-)

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

Cu+ oth NaClO4 25°C 0.10M U K1=10.0 1991BSb (67972) 414

By cyclic voltammetry on the Cu++ complex.

C9H20S4 L TTT CAS 25676-65-7 (2256)

2,5,9,12-Tetrathiatridecane; (CH3.S.CH2.CH2.S.CH2)2.CH2

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

Cu+ sp NaClO4 25°C 0.10M U K1=13.11 1997DWa (68131) 415

Cu+ oth NaClO4 25°C 0.10M U K1=13.1 1991BSb (68132) 416

By cyclic voltammetry on the Cu++ complex.

C9H21NS3 L (6620)

Tris(methylthioethylamine; N(CH2CH2SCH3)3

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

Cu+ vlt NaClO4 25°C 0.10M M 1999ADb (68154) 417

K1eff=15.80

pH<5.

C9H21N3 L CAS 23635-83-8 (5968)

1,4,7-Triazacyclododecane;

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

Cu+ vlt NaClO4 25°C 0.20M C M 1997K0a (68160) 418
K(CuL+SCN)=13.58
K(CuL+CH3CN)=12.72

Method: polarography.

Cu+ gl mixed 20°C var U 1987BKc (68161) 419
K(Cu(CH3CN)+L)=9.29
K(Cu(CH3CN)+HL)=4.45

Medium: 1-4% v/v MeCN/H2O, 0.2 M Na2SO4

C9H21N3 L CAS 294-80-4 (1531)
1,5,9-Triazacyclododecane; cyclo(-NH.(CH2)3.NH.(CH2)3.NH.(CH2)3-)

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

Cu+ vlt NaClO4 25°C 0.20M C M 1997K0a (68187) 420
K(CuL+SCN)=14.51

Method: polarography.

Cu+ gl mixed 20°C var U 1987BKc (68188) 421
K(Cu(CH3CN)+L)=8.46
K(Cu(CH3CN)+HL)=2.78

Medium: 1-4% v/v MeCN/H2O, 0.2 M Na2SO4

C9H22N2S2 L (5953)
2,12-Dithia-5,9-diazatridecane; CH3.S.CH2.CH2.NH.CH2.CH2.CH2.NH.CH2.CH2.S.CH3

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

Cu+ gl mixed 20°C var U K1=14.46 1986KKc (68232) 422
K(Cu+HL)=9.35
K(Cu(CH3CN)+H2L)=3.17

Medium: 1-4% MeCN, 0.2 M Na2SO4

C9H23N3 L CAS 3030-47-5 (4605)
N,N,N',N'',N''-Pentamethyl-diethylenetriamine; (CH3)2NCH2CH2N(CH3)CH2CH2N(CH3)2

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

Cu+ gl NaClO4 25°C 0.15M U K1=<8 1999NGa (68279) 423

Cu+ vlt NaClO4 25°C 0.20M C M 1997K0a (68280) 424
K(CuL+SCN)=12.18

Method: polarography.

Cu+ gl mixed 25°C 10% C 1989KKe (68281) 425
B(CuL(CH3CN))=10.23

B(CuL(CO))=16.51

Medium: 10% v/v CH3CN/H2O, 0.20 M NaNO3.

C9H24N3O9P3 H6L NOTPH CAS 83843-39-3 (224)

1,4,7-Triazacyclononane-N,N',N''-tris(methylenephosphonic acid);

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

Cu+ gl KNO3 25°C 1.00M U 1990BSd (68316) 426

K(Cu+HL)=10.1

K(Cu+H2L)=8.3

K(Cu+H3L)=4.1

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

Cu+ sp none 23°C 0.0 C K1=4.59 B2= 9.18 1995ZGa (69540) 427

Cu+ EMF non-aq 25°C 100% C K2=4.8 1988MPa (69541) 428

Medium: acetonitrile. Method: Cu electrode.

Cu+ vlt oth/un ? ? U K1=10.68 B2=14.35 1971FAa (69542) 429

Cu+ vlt alc/w 25°C 50% U M B2=15.5 1967PAb (69543) 430

Medium: 50% MeOH, 0.1 M KNO3. Many ternary complexes also

Cu+ EMF oth/un 25°C 0.30M U B2=13.18 1961JWa (69544) 431

Method: platinum electrode. Medium: K2SO4

Cu+ vlt KNO3 25°C 0.10M U B2=14.2 1950La (69545) 432

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

Cu+ sp oth/un 30°C ? U 1963RMa (69940) 433

K(2CuCl+H2L=Cu2L+2H+2Cl)=4.33

C10H10N4O4S2 H2L CAS 78441-02-8 (2880)

N-Methylindol-2,3-dione-3-thiosemicarbazone-5-sulfonic acid;

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

Cu+ ISE KNO3 37°C 0.15M C B2=18.50 1981STa (70623) 434

B(CuHL2)=25.45

C10H11O4As H2L CAS 51525-18-9 (3907)

As-Phenylarsinodiethanoic acid; C₆H₅.As(CH₂.COOH)₂

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        gl  KNO3   20°C 0.10M U                K(CuL+H)=4.0      1964PIa (71128) 435
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Cu+        EMF oth/un 25°C 0.30M U                Bn=3.95+1.7n
                                                K(CuHL+H)=2.70(?)
                                                K(CuL+H)=3.96(?)
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Medium: K₂S₂O₄

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C10H16N2O8      H4L      EDTA                CAS 60-00-4 (120)
1,2-Diaminoethane-N,N,N',N'-tetraethanoic acid, Sequestric acid;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        vlt KNO3   30°C 2.0M U                K1=8.5            1971SSe (73686) 437
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C10H16O8P2      H4L                (6907)
1,2-Diphosphinoethane-P,P,P'P'-tetraethanoic acid;
(HOOC.CH2)2P.CH2.CH2.P(CH2.COOH)2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        gl  NaClO4 25°C 0.10M C                B(CuHL)=12.34     1982PPc (74945) 438
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```
C10H17N3O6S      H3L      Glutathione         CAS 70-18-8 (333)
Glutamyl-cysteinyl-glycine;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        gl  NaCl    25°C 1.00M C      M                B(CuH4(Cys)L)=44.502
                                                B(Cu2H3(Cys)L2)=58.92
                                                B(Cu2H(Cys)L)=38.29
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-----
Cu+        ISE NaClO4 25°C 0.50M C                B(CuHL)=24.9
                                                B(CuH2L2)=38.8
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C10H20O2S4      L                CAS 113859-51-1 (5842)
cis-3,6,10,13-Tetrathiacyclotetradecan-1,8-diol;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        oth NaClO4 25°C 0.10M U                K1=9.71           1991BSb (75909) 441
By cyclic voltammetry on the Cu++ complex.
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 C10H20S4 L 14-Ane-S4 CAS 24194-61-4 (175)
 1,4,8,11-Tetrathiacyclotetradecane; cyclo(-(S.CH2.CH2)2.CH2.(S.CH2.CH2)2.CH2-)

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

 Cu+ sp NaClO4 25°C 0.10M U K1=12.11 1997DWa (76155) 442

 Cu+ vlt non-aq 25°C 100% U K1=4.20 1995ADa (76156) 443
 Medium: MeCN; 0.10 M NaClO4

Cu+ oth NaClO4 25°C 0.10M U K1=12.11 1991BSb (76157) 444
 By cyclic voltammetry on the Cu++ complex.

 C10H20S5 L CAS 36378-04-2 (2257)
 1,4,7,10,13-Pentathiacyclopentadecane; cyclo(-(S.CH2.CH2)5-)

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

 Cu+ oth NaClO4 25°C 0.10M U K1=13.65 1991BSb (76163) 445
 By cyclic voltammetry on the Cu++ complex.

 C10H21N04 L CAS 66943-05-3 (5818)
 1-Aza-4,7,10,13-tetraoxacyclopentadecane;

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

 Cu+ EMF non-aq 25°C 100% C K1=1.76 B2= 2.65 1999THa (76183) 446
 Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.

 C10H21NS3 L (6551)
 1,4,8-Trithia-11-azacyclopentadecane;

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

 Cu+ vlt NaClO4 25°C 0.10M U K(CuL+H) < 3.0 1992BHa (76192) 447

 C10H21NS4 L (6553)
 1,4,7,10-Tetrathia-13-azacyclopentadecane;

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

 Cu+ vlt NaClO4 25°C 0.10M U K(CuL+H)=4.17 1992BHa (76195) 448

 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

Cu+ EMF non-aq 25°C 100% C K1=3.69 1999THa (76313) 449
Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.

Cu+ EMF non-aq 25°C 100% U K1=6.91 1998HTb (76314) 450
B(Cu2L)=8.40

Medium: DMSO. Method: Cu(Hg)/Cu+ electrode

C10H22N2S2 L (6550)

1,11-Dithia-4,8-diazacyclotetradecane;

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

Cu+ vlt NaClO4 25°C 0.10M U 1992BHa (76351) 451

K(CuL+H) < 5.0

C10H22N2S2 L Cis-14aneN2S2 CAS 87939-30-8 (788)

1,4-Diaza-8,11-dithia-cyclotetradecane; cyclo(-(HN.CH2.CH2)2.CH2(S.CH2.CH2)CH2-)

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

Cu+ vlt NaClO4 25°C 0.10M U 1992BHa (76358) 452

K(CuL+H)=3.9

K(CuHL+H)=2.9

Cu+ gl oth/un 20°C 0.20M C K1=13.39 1984BKa (76359) 453

K(Cu+HL)=7.73

Medium: 2% MeCN/H2O, 0.2 M Na2SO4

C10H22N2S2 L Trans-14aneN2S2 CAS 91269-07-7 (789)

1,9-Diaza-5,12-dithia-cyclotetradecane;

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

Cu+ gl oth/un 20°C 0.20M C K1=14.20 1984BKa (76366) 454

K(Cu+HL)=9.46

Medium: 2% MeCN/H2O, 0.2 M Na2SO4

C10H22N2S3 L (6554)

1,4,7-Trithia-10,13-diazacyclopentadecane;

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

Cu+ vlt NaClO4 25°C 0.10M U 1992BHa (76377) 455

K(CuL+H)=5.90

C10H22S4 L (7358)

2,6,9,13-Tetrathiatetradecane; CH3S(CH2)3S(CH2)2S(CH2)3SCH3

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

 Cu+ sp NaClO4 25°C 0.10M U K1=13.00 1997DWa (76484) 456

 C10H23N3 L (5969)
 1,4,7-Triazacyclotridecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	gl	mixed	20°C	var	U				1987BKc (76491)	457
								K(Cu(CH3CN)+L)=7.56 K(Cu(CH3CN)+HL)=4.43		

Medium: 1-4% v/v MeCN/H2O, 0.2 M Na2SO4

 C10H23N3 L CAS 54365-83-2 (269)
 1,5,9-Triazacyclotridecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	gl	mixed	20°C	var	U				1987BKc (76494)	458
								K(Cu(CH3CN)+L)=8.14 K(Cu(CH3CN)+HL)=3.76		

Medium: 1-4% v/v MeCN/H2O, 0.2 M Na2SO4

 C10H24N2S2 L CAS 7606-99-6 (792)
 2,13-Dithia-6,9-diazatetradecane; (CH3.S.(CH2)3.NH.(CH2)2.NH.(CH3)3.S.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	gl	mixed	20°C	var	U				1986KKc (76595)	459
								K1=13.02 K(Cu+HL)=8.25 K(Cu(CH3CN)+H2L)=3.57		

Medium: 1-4% MeCN, 0.2 M Na2SO4

 C11H9N3 L CAS 2659-57-5 (5482)
 2-(Phenylazo)pyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	vlt	non-aq	25°C	100%	C				1998MDb (77444)	460
								B2=13.17		

Method: cyclic voltammetry. Medium: MeOH, 0.001 Bu4NClO4. Metal is Cu(MeCN)4+. Data for many related arylazopyridines and arylazoimidazoles.

Cu+	sp	non-aq	25°C	100%	U				1983DCa (77445)	461
								K1=3.00 B2=6.08		

Medium: MeCN

 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
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Cu+ sp KCl 25°C 0.01M U K1=6.70 1970GMc (77531) 462

C11H22N4O4 H2L (6756)
1,4-Diazacycloheptane-N,N'-bis(N-methyl-acetohydroxamic acid);
C5H10N2(CH2.CO.N(OH)CH3)2

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

Cu+ vlt KNO3 25°C 0.10M C 1993SEb (79841) 463
B(CuHL)=19.9

Method: cyclic voltmetry

C11H22S4 L 15-Ane-S4 CAS 57704-75-3 (1745)
1,4,8,12-Tetrathiacyclopentadecane; cyclo(-S.CH2.CH2.(S.(CH2)3)3-)

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

Cu+ oth NaClO4 25°C 0.10M U K1=11.79 1991BSb (79882) 464
By cyclic voltammetry on the Cu++ complex.

C11H24S4 L Et2-TTU CAS 57704-77-5 (1748)
3,6,10,13-Tetrathiapentadecane; C2H5.S.CH2.CH2.S.(CH2)3.S.CH2.CH2.S.C2H5

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

Cu+ oth NaClO4 25°C 0.10M U K1=13.34 1991BSb (79916) 465
By cyclic voltammetry on the Cu++ complex.

C11H25N3 L CAS 236111-60-7 (7672)
N-[2-(Dimethylamino)ethyl]-N,N'-dimethyl-N'-2-propenyl-1,2-diaminoethane;

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

Cu+ gl NaClO4 25°C 0.15M U K1=10.52 1999NGa (79921) 466

C11H26N2S2 L (5955)
2,14-Dithia-6,10-diazapentadecane; CH3.S.(CH2)3.NH.(CH2)3.NH.(CH2)3.S.CH3

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

Cu+ gl mixed 20°C var U K1=12.56 1986KKc (79961) 467
K(Cu+HL)=8.28
K(Cu(CH3CN)+H2L)=3.48

Medium: 1-4% MeCN, 0.2 M Na2SO4

C12H6N2Cl2 L CAS 5394-23-0 (3964)
4,7-Dichloro-1,10-phenanthroline;

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

Cu+ EMF diox/w 25°C 50% U M B2=12.5 1961JWa (80089) 468
Medium: 50% dioxan, 0.3 M KNO3. $K(\text{Cu(II)L2}+\text{Cu(I)}=\text{Cu(I)L2}+\text{Cu(II)})=2.28$

C12H7N2Cl L CAS 7089-68-1 (3965)

2-Chloro-1,10-phenanthroline;

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

Cu+ EMF oth/un 25°C 0.30M U B2=14.6 1961JWa (80129) 469

Medium: K2SO4

C12H7N2Cl L CAS 4199-89-7 (2751)

5-Chloro-1,10-phenanthroline;

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

Cu+ EMF diox/w 25°C 50% U M B2=12.2 1961JWa (80142) 470

Medium: 50% dioxan, 0.3 M KNO3. $K(\text{Cu(II)L2}+\text{Cu(I)}=\text{Cu(I)L2}+\text{Cu(II)})=1.18$

C12H7N3O2 L CAS 4199-88-6 (449)

5-Nitro-1,10-phenanthroline;

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

Cu+ EMF diox/w 25°C 50% U M 1961JWa (80170) 471

Medium: 50% dioxan, 0.3 M KNO3. $K(\text{Cu(II)L2}+\text{Cu(I)}=\text{Cu(I)L2}+\text{Cu(II)})=2.15$

C12H8N2 L Phenanthroline CAS 66-71-7 (144)

1,10-Phenanthroline;

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

Cu+ sp none 23°C 0.0 C K1=3.96 B2= 8.38 1995ZGa (80420) 472

Cu+ oth oth/un 25°C 0.30M U M B2=15.82 1961JWa (80421) 473

Method: platinum electrode. Medium: K2SO4. Equilibria with Cu++

C12H9N3 L CAS 54258-41-2 (3955)

5-Amino-1,10-phenanthroline;

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

Cu+ EMF diox/w 25°C 50% U M 1961JWa (80627) 474

Medium: 50% dioxan, 0.3 M KNO3. $K(\text{Cu(II)L2}+\text{Cu(I)}=\text{Cu(I)L2}+\text{Cu(II)})=-0.03$

C12H12N2 L CAS 1134-35-6 (3375)

4,4'-Dimethyl-2,2'-bipyridyl; CH3.C5H3N.C5H3N.CH3

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

Cu+ EMF diox/w 25°C 50% U M 1961JWa (81009) 475
Medium: 50% dioxan, 0.3 M KNO3. $K(\text{Cu(II)L2}+\text{Cu(I)}=\text{Cu(I)L2}+\text{Cu(II)})=-0.77$

C12H12N2 L CAS 1762-34-1 (3956)

5,5'-Dimethyl-2,2'-bipyridyl; CH3.C5H3N.C5H3N.CH3

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

Cu+ EMF diox/w 25°C 50% U M 1961JWa (81012) 476

Medium: 50% dioxan, 0.3 M KNO3. $K(\text{Cu(II)L2}+\text{Cu(I)}=\text{Cu(I)L2}+\text{Cu(II)})=0.10$

C12H12N2 L CAS 4411-80-7 (3957)

6,6'-Dimethyl-2,2'-bipyridyl; CH3.C5H3N.C5H3N.CH3

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

Cu+ EMF non-aq 25°C 100% C K2=6.9 1988MPa (81015) 477

Medium: acetonitrile. Method: Cu electrode.

Cu+ EMF diox/w 25°C 50% U B2=15.8 1961JWa (81016) 478

Medium: 50% dioxan, 0.3 M KNO3

C12H16N6O3 HL His-His CAS 306-14-9 (846)

Histidyl-histidine; H2N.CH(CH2.C3H3N2).CO.NH.CH(CH2.C3H3N2).COOH

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

Cu+ gl mixed 25°C 1.1% U 1966KZb (81658) 479

$K(\text{Cu}+2\text{H}_2\text{L})=12.47$

$K(\text{CuHL}+\text{Cu})=6.18$

$K(\text{Cu}_2\text{L}+\text{H})=6.47$

Medium: 1.14% MeCN, 0.1 M NaClO4

C12H20N2S2 L CAS 244791-98-8 (7675)

2-Pyridylmethylbis(2-methylthioethyl)amine;

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

Cu+ vlt NaClO4 25°C 0.10M M 1999ADb (82597) 480

$K_{\text{leff}}=15.36$

pH<5.

C12H22N4S CAS 237424-08-7 (3685)

17-Thia-3,6,9,12-tetraazabicyclo[12.2.1]heptadeca-14,16-diene;

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

Cu+ vlt NaClO4 25°C 0.15M M K1=9.1 1999ADc (82855) 481

$B(\text{CuHL})=16.2$

$B(\text{CuH-1L})=-0.08$

BCu2H-2L)=-2.0

C12H24S4 L 16-Ane-S4 CAS 295-91-0 (1744)
1,5,9,13-Tetrathiacyclohexadecane; cyclo(-S.(CH2.CH2.CH2.S)3.(CH2)3-)

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

Cu+ oth NaClO4 25°C 0.10M U K1=12.00 1991BSb (83691) 482
By cyclic voltammetry on the Cu++ complex.

C12H25NO5 L CAS 33941-15-0 (4939)
1,4,7,10,13-Pentaoxa-16-azacyclooctadecane;

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

Cu+ EMF non-aq 25°C 100% C K1=1.25 B2= 2.17 1999THa (83702) 483
Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.

Cu+ EMF non-aq 25°C 100% U K1=2.31 B2= 5.48 1998HTb (83703) 484
Medium: DMSO. Method: Cu(Hg)/Cu+ electrode

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

Cu+ EMF non-aq 25°C 100% C K1=3.52 1999THa (83828) 485
Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.

Cu+ EMF non-aq 25°C 100% U K1=2.97 B2= 6.09 1998HTb (83829) 486
Medium: DMSO. Method: Cu(Hg)/Cu+ electrode

Cu+ EMF non-aq 25°C 100% U K1=6.69 1998HTb (83830) 487
B(Cu2L)=8.30
Medium: DMSO. Method: Cu(Hg)/Cu+ electrode

C12H26N2S2 L Cis-16aneN2S2 CAS 88439-32-1 (790)
1,5-Diaza-9,13-dithia-cyclohexadecane; cyclo(-(NH.C3H6)2.(S.C3H6)2-)

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

Cu+ gl oth/un 20°C 0.20M C K1=14.35 1984BKa (83929) 488
Medium: 2% MeCN/H2O, 0.2 M Na2SO4

C12H26N2S2 L Trans-16aneN2S2 CAS 81566-53-8 (791)
1,9-Diaza-5,13-dithia-cyclohexadecane; cyclo(-(NH.C3H6.S.C3H6)2-)

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

Cu+ gl oth/un 20°C 0.20M C K1=13.95 1984BKa (83934) 489

K(Cu+HL)=10.17

Medium: 2% MeCN/H2O, 0.2 M Na2SO4

C12H27N L CAS 102-82-9 (1341)

Tributylamine; (C4H9)3N

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

Cu+ EMF non-aq 25°C 100% C I K1=<0.5 1999THa (84042) 490

Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.

Also data for medium: DMSO

C12H27NS3 L (6619)

Tris(ethylthioethyl)amine; N(CH2CH2SCH2CH3)3

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

Cu+ vlt NaClO4 25°C 0.10M M 1999ADb (84047) 491

K1eff=15.53

pH<5.

C12H30N4 L (7251)

2,5,8,11-Tetramethyl-2,5,8,11-tetraazadodecane;

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

Cu+ gl NaClO4 25°C 0.15M U K1=11.0 1999NGa (84290) 492

Cu+ vlt NaClO4 25°C 0.15M C K1=11.0 1995GCa (84291) 493

Method: cyclic voltammetry.

C13H10N2 L CAS 3002-77-5 (3400)

2-Methyl-1,10-phenanthroline;

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

Cu+ EMF oth/un 25°C 0.30M U B2=16.95 1961JWa (84779) 494

Medium: K2SO4

C13H10N2 L CAS 3003-78-6 (2752)

5-Methyl-1,10-phenanthroline;

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

Cu+ EMF diox/w 25°C 50% U M 1961JWa (84808) 495

Medium: 50% dioxan, 0.3 M KNO3. K(Cu(II)L2+Cu(I)=Cu(I)L2+Cu(II))=0.81

C13H22N2S2 L CAS 244791-99-9 (7677)

2-Pyridylethylbis(2-methylthioethyl)amine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	vlt	NaClO4	25°C	0.10M	M			K1eff=15.76	1999ADb (86317)	496

pH<5.

C13H32N4	L							(7403)		
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2,5,9,12-Tetramethyl-2,5,9,12-tetraazatridecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu+	vlt	NaClO4	25°C	0.15M	C			K1=10.0	1995GCa (86578)	497
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Method: cyclic voltammetry.

C14H10	L	Tolan						CAS 501-65-5	(6468)	
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Diphenylethyne, diphenylacetylene; C6H5.CC.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu+	sp	mixed	?	1.6%	U			K(Cu(phen)+L)=0.64	1992MKa (86876)	498
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Medium 1.56% v/v MeCN/acetone.

C14H12N2	L							CAS 484-11-7	(450)	
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2,9-Dimethyl-1,10-phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu+	sp	mixed	20°C	80%	C			B2=14.2	2003HZa (87127)	499
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Medium: 80% CH3CN/CH2Cl2, 0.10 M Bu4NC104.

Cu+	sp	non-aq	25°C	100%	U	I		K1=6.6 B2=12.3	1999MAa (87128)	500
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Medium: CH3CN, 0.1 M (C4H9)4NCF3SO3. Also data for medium: 80% (v/v)

CH3CN/CH2Cl/H2O, 0.1 M (C4H9)4NCF3SO3, K1=6.3, K2=5.4.

Cu+	EMF	oth/un	25°C	0.30M	U			B2=19.1	1961JWa (87129)	501
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Medium: K2SO4

C14H12N2	L							CAS 3248-05-3	(3427)	
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4,7-Dimethyl-1,10-phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu+	EMF	diox/w	25°C	50%	U	M			1961JWa (87145)	502
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Medium: 50% dioxan, 0.3 M KNO3. K(Cu(II)L2+Cu(I)=Cu(I)L2+Cu(II))=-0.50

C14H13N3O2	L							(6229)		
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3-(2-Acetophenyl)-1-phenyltriazeno-N-oxide; CH3.CO.C6H4.NH.N:N(O).C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu+ sp alc/w 25°C 50% U K1=4.97 B2=9.76 1985SRd (87595) 503

C14H1302P HL CAS 3064-56-0 (7013)
2-(Diphenylphosphino)-ethanoic acid; (C6H5)2P.CH2.COOH

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

Cu+ ISE NaCl04 25°C 0.10M U I K1=6.9 B2=12.21 1979PPc (87633) 504
B3 = 15.18
B4 = 17.2

Method:Cu elec. In 50% v/v dioxan/H2O: K1=7.27; B2=12.89; B3=16.89; B4=19.37

C14H16N2 L CAS 3052-78-6 (4035)
4,4'-Diethyl-2,2'-bipyridyl; CH3.CH2.C5H3N.C5H3N.CH2.CH3

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

Cu+ EMF diox/w 25°C 50% U M 1961JWa (87840) 505
Medium: 50% dioxan, 0.3 M KNO3. K(Cu(II)L2+Cu(I)=Cu(I)L2+Cu(II))=-0.58

C14H20S4 L (7091)
2,3-Benzo-1,4,8,11-tetrathiacyclotetradecane;

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

Cu+ vlt non-aq 25°C 100% U K1=5.43 1995ADa (88401) 506
Medium: MeCN; 0.10 M NaCl04

C14H24N2S2 L CAS 76641-07-1 (7676)
2-Pyridylmethylbis(2-ethylthioethyl)amine;

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

Cu+ vlt NaCl04 25°C 0.10M M 1999ADb (89981) 507
K1eff=15.00

pH<5.

C14H24N2S2 L CAS 122-36-1 (2822)
N,N'-Dicyclohexyl-dithiooxamide; C6H11.NH.CS.CS.NH.C6H11

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

Cu+ sp none 25°C 0.0 U K1=8.78 1976AMc (89984) 508

C14H26N4S CAS 237424-09-8 (4804)
9-Thia-3,7,10,14-tetraazabicyclo[14.2.1]nonadeca-16,18-diene; L

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

Cu+ vlt NaClO4 25°C 0.15M C K1=10.7 1999ADc (90267) 509
B(CuHL)=18.7

Method: cyclic voltammetry.

C14H26S4 L (7092)
2,3-cis-Cyclohexano-1,4,8,11-tetrathiacyclotetradecane;

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

Cu+ vlt non-aq 25°C 100% U K1=4.96 1995ADa (90278) 510
Medium: MeCN; 0.10 M NaClO4. For trans isomer: K1=5.43

C14H27N5S L CAS 237424-10-1 (3762)
20-Thia-3,6,9,12,15-pentaazabicyclo[15.2.1]eicosa-17,19-diene;

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

Cu+ vlt NaClO4 25°C 0.15M C K1=10.9 1999ADc (90291) 511
B(CuHL)=19.5
B(Cu2H-1L)=5.9
B(Cu2H-2L)=-4.6

Method: cyclic voltammetry.

C14H28N2O4 L Cryptand 2,1,1 CAS 31250-06-3 (836)
1,10-Diaza-4,7,13,18-tetraoxabicyclo[8,5,5]eicosane (2,1,1);

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

Cu+ EMF non-aq 25°C 100% C K1=5.58 1999THa (90358) 512
Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.

Cu+ EMF non-aq 25°C 100% U K1=6.20 1998HTb (90359) 513
Medium: DMSO. Method: Cu(Hg)/Cu+ electrode

C14H28S4 L (7364)
cis-1,2-Bis((3-methylthiopropyl)thio)cyclohexane

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

Cu+ sp NaClO4 25°C 0.10M U K1=12.98 1997DWa (90548) 514
For trans-L, K1=13.80

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

Cu+ EMF non-aq 25°C 100% C K1=3.73 1999THa (90612) 515
Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.

Cu+ EMF non-aq 25°C 100% U K1=6.73 1998HTb (90613) 516
Medium: DMSO. Method: Cu(Hg)/Cu+ electrode

C15H11N3 L CAS 1148-79-4 (488)
2,2':6'2''-Terpyridine; C5H4N.C5H3N.C5H4N

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

Cu+ EMF oth/un 25°C 0.30M U K1=9.3 1961JWa (91153) 517
Medium: K2SO4

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

Cu+ sp KCl 25°C 0.01M U K1=6.30 1970GMc (91209) 518

C15H19N3S L CAS 244792-01-6 (7679)
Bis(2-pyridylmethyl)-2-methylthioethylamine;

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

Cu+ vlt NaClO4 25°C 0.10M M K1eff=14.95 1999ADb (92135) 519

pH<5.

C15H26N2S2 L CAS 244792-00-5 (7678)
2-Pyridylethylbis(2-ethylthioethyl)amine;

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

Cu+ vlt NaClO4 25°C 0.10M M K1eff=15.94 1999ADb (92413) 520

pH<5.

C15H37N5 L CAS 3803-11-2 (1798)
2,5,8,11,14-Pentamethyl-2,5,8,11,14-pentaazapentadecane;

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

Cu+ vlt NaClO4 25°C 0.15M U K1=10.9 1996Gcb (92626) 521

C16H13N2Cl L CAS 35857-75-1 (5154)
2-(4-Chlorophenyliminomethyl)quinoline;

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

Cu+ sp oth/un ? ? U K(CuCl+2L)=8.14 1973GRa (93161) 522

 C16H14N2 L CAS 36954-40-6 (5142)
 2-(Phenyliminomethyl)quinoline;

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

 Cu+ sp oth/un ? ? U 1973GRa (93403) 523
 K(CuCl+2L)=10.38

 C16H14N2O HL (5155)
 2-(4-Hydroxyphenyliminomethyl)quinoline;

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

 Cu+ sp oth/un ? ? U 1973GRa (93416) 524
 K(CuCl+2HL)=8.18

 C16H16N2 L CAS 1660-93-1 (4073)
 3,5,6,8-Tetramethyl-1,10-phenanthroline;

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

 Cu+ EMF diox/w 25°C 50% U M 1961JWa (93659) 525
 Medium: 50% dioxan, 0.3 M KNO3. K(Cu(II)L2+Cu(I)=Cu(I)L2+Cu(II))=0.30

 C16H16N2O4 L CAS 1762-42-1 (4083)
 2,2'-Bipyridyl-4,4'-bis(carboxylic acid ethyl ester)

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

 Cu+ EMF diox/w 25°C 50% U M B2=11.4 1961JWa (93689) 526
 Medium: 50% dioxan, 0.3 M KNO3. K(Cu(II)L2+Cu(I)=Cu(I)L2+Cu(II))=1.80

 C16H16N2O4 H2L CAS 1762-46-5 (4084)
 Diethyl 2,2'-bipyridyl-5,5'-dicarboxylate; (CH3.CH2O.CO.C5H3N.)2

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

 Cu+ EMF diox/w 25°C 50% U M 1961JWa (93691) 527
 Medium: 50% dioxan, 0.3 M KNO3. K(Cu(II)L2+Cu(I)=Cu(I)L2+Cu(II))=2.17

 C16H18N2O3 HL (5564)
 2-(2-Acetylphenylhydrazone)-5,5-dimethyl-1,3-cyclohexanedione;

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

 Cu+ gl diox/w 25°C 75% U K1=12.20 B2=20.98 1990ASb (93773) 528

 C16H20N2 L (4075)
 5,5'-Diethyl-4,4'-dimethyl-2,2'-bipyridyl

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        EMF diox/w 25°C 50% U   M                1961JWa (93964) 529
Medium: 50% dioxan, 0.3 M KNO3. K(Cu(II)L2+Cu(I)=Cu(I)L2+Cu(II))=-0.67
*****
C16H21N3S          L                CAS 244792-02-7 (7680)
Bis(2-pyridylmethyl)-2-ethylthioethylamine;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        vlt NaClO4 25°C 0.10M M                1999ADb (94118) 530
                K1eff=14.99
pH<5.

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*****
C16H32N2O5          L   Cryptand 2,2,1   CAS 31364-42-8 (837)
1,10-Diaza-4,7,13,16,21-pentaoxabicyclo[8,8,5]tricosane (2,2,1);
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        EMF non-aq 25°C 100% C                K1=2.97   B2= 3.58   1999THa (95197) 531
Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.
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Cu+        EMF non-aq 25°C 100% U                K1=5.22                1998HTb (95198) 532
Medium: DMSO. Method: Cu(Hg)/Cu+ electrode
*****
C17H14N2O2          HL                (5211)
2-(4-Carboxyphenyliminomethyl)quinoline;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        sp oth/un  ?    ?  U                1973GRa (95850) 533
                K(CuCl+2HL)=8.40
*****
C17H15N2Cl          L                (5213)
4-Chloro-2-(4-tolyliminomethyl)quinoline;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        sp oth/un  ?    ?  U                1973GRa (95987) 534
                K(CuCl+2L)=8.07
*****
C17H23N3S          L                CAS 210816-20-9 (7681)
Bis(2-pyridylethyl)-2-methylthioethylamine;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu+        vlt NaClO4 25°C 0.10M M                1999ADb (96414) 535
                K1eff=14.63
pH<5.

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 C17H29N5 L (7736)
 N,N-Bis(2-ethyl-5-methylimidazol-4-ylmethyl)aminopropane;

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

 Cu+ sp non-aq 25°C 100% C 2000BBd (96582) 536
 K(CuL+NO2)=1.48

Medium: methanol.

 C18H12N2 L Cuproin CAS 119-91-5 (2518)
 2,2'-Biquinoline; C9H6N.NH6C9

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

 Cu+ dis NaCl 25°C 0.10M U 1971GGb (96852) 537
 K(CuCl+2L)=11.98

 Cu+ EMF oth/un 25°C 0.30M U B2=16.5 1961JWa (96853) 538
 Medium: K2SO4

 C18H12N2 L CAS 6135-89-5 (3498)
 5-Phenyl-1,10-phenanthroline;

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

 Cu+ EMF diox/w 25°C 50% U M 1961JWa (96862) 539
 Medium: 50% dioxan, 0.3 M KNO3. K(Cu(II)L2+Cu(I)=Cu(I)L2+Cu(II))=0.68

 C18H15As L CAS 603-32-7 (2653)
 Triphenylarsine; (C6H5)3As

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

 Cu+ ISE non-aq 25°C 100% C H K1=2.65 B2=4.05 1978ABb (96970) 540
 Medium: DMSO, 0.1 M NH4ClO4; DH(K1)=-23, DH(K2)=-32 kJ mol⁻¹

 C18H15O3PS HL CAS 16704-71-5 (3365)
 3-Diphenylphosphino-benzene sulfonic acid;

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

 Cu+ ISE oth/un 25°C 1.0M U K1=5.76 B2=11.21 1968GBa (97107) 541
 K3=4.91
 K4=3.80

Medium: LiCl

 C18H15P L CAS 603-35-0 (621)
 Triphenylphosphine; (C6H5)3P

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	ISE	non-aq	25°C	100%	C	H		K1=6.57 B2=10.44 K3=1.40	1978ABb (97134)	542
Medium: DMSO, 0.1 M NH4ClO4; DH(K1)=-47, DH(K2)=-41, DH(K3)=25 kJ mol-1										

C18H15Sb		L						CAS 603-36-1	(2654)	
Triphenylantimony; (C6H5)3Sb										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	ISE	non-aq	25°C	100%	C	H		K1=1.25 B2=1.79	1978ABb (97158)	543
Medium: DMSO, 0.1 M NH4ClO4; DH(K1)=-11, DH(K2)=-25 kJ mol-1										

C18H16N2		L						(5230)		
8-Methyl-2-(2-tolyliminomethyl)quinoline;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	sp	oth/un	?	?	U			K(CuCl+2L)=5.13	1973GRa (97160)	544

C18H17N3		L						CAS 84922-32-7	(5232)	
2-(4-Dimethylaminophenyliminomethyl)quinoline;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	sp	oth/un	?	?	U			K(CuCl+2L)=4.94	1973GRa (97219)	545

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
Cu+	vlt	NaClO4	25°C	0.10M	M			K1eff=12.9	1999ADb (97253)	546
pH<5.										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	oth	non-aq	25°C	100%	C	T	HM	K(CuL+O2)=-0.47 K(CuL+CuL(O2))=0.18	1995LWb (97254)	547
Method: manometry. Medium: EtCN. DH(CuL+O2)=-34 kJ mol-1, DS(CuL+O2)=-123 J K-1 mol-1. For 5-acetyl deriv., K(CuL+O2)=-1.1, DH(CuL+O2)=-32, DS=-127.										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu+	kin	oth/un	25°C	0.0	U	T	HM	K(CuLA+CuLB=(CuL)2B+A)=2.95	1991KWa (97255)	548
-91 to 25 C. K(CuLA+CuLB=(CuL)2B+A)=8.36(-91C). A:CH3CN or C2H5CN. B:O2. DH=-49.1 kJ mol-1; DS=-109.										

C18H19N5OS L (6139)
5,7-Dimethyl-4a,7a-diphenyloctahydroimidazo(4,5-e)triazia-6-one-3-thione;

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

Cu+ ISE mixed 25°C 82% U K1=9.51 B2=11.42 1980TBa (97319) 549
Medium: 82% v/v DMFA/H2O; 0.2 M KNO3

C18H25N3S L CAS 244792-03-8 (7682)
Bis(2-pyridylethyl)-2-ethylthioethylamine;

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

Cu+ vlt NaClO4 25°C 0.10M M K1eff=14.97 1999ADb (97665) 550

pH<5.

C18H26S4 L (7093)
2,3-Benzo-9,10-cis-cyclohexano-1,4,8,11-tetrathiacyclotetradecane;

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

Cu+ vlt non-aq 25°C 100% U K1=6.18 1995ADa (97743) 551
Medium: MeCN; 0.10 M NaClO4. For trans isomer: K1=5.48

C18H32S4 L (7094)
syn-2,3,9,10-cis,cis-Dicyclohexano-1,4,8,11-tetrathiacyclotetradecane;

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

Cu+ vlt non-aq 25°C 100% U K1=>6 1995ADa (98283) 552
Medium: MeCN; 0.10 M NaClO4. For anti isomer: K1=5.29. Also data for meso

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

Cu+ EMF non-aq 25°C 100% C K1=1.85 B2= 3.10 1999THa (98559) 553
Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.

Cu+ EMF non-aq 25°C 100% U K1=4.10 1998HTb (98560) 554
Medium: DMSO. Method: Cu(Hg)/Cu+ electrode

Cu+ ISE non-aq 25°C 100% U K1=1.90 1993LMa (98561) 555
Medium: MeCN, 0.1 M R4NX. Also data for MeCN-DMSO mixtures. In DMSO: K1=4.03

C18H44N6 L (7252)
2,5,8,11,14,17-Hexamethyl-2,5,8,11,14,17-hexaazaooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	vlt	NaClO4	25°C	0.15M	U		K1=10.5	1996Gcb (98954)	556

C19H14N2O			L				CAS 142942-21-0	(7661)	
2-(p-Anisyl)-1,10-phenanthroline;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	sp	non-aq	25°C	100%	U I		K1=5.3 B2=11.3	1999MAa (99067)	557
Medium: CH3CN, 0.1 M (C4H9)4NCF3SO3. Also data for medium: 80% (v/v) CH3CN/CH2Cl/H2O, 0.1 M (C4H9)4NCF3SO3, K1=5.5, K2=5.7.									

C19H23N3S2			L				(7112)		
2,6-Bis(2-(thiophen-2-ylmethylimino)ethyl)pyridine;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	nmr	non-aq	25°C	100%	U		B2=8.8 B(Cu2L2)=13.15	1995BCa (99337)	558
Medium: CD3CN.									

C20H16N2O			L				CAS 142942-22-1	(7662)	
2-(p-Anisyl)-9-methyl-1,10-phenanthroline;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	sp	non-aq	25°C	100%	U I		K1=5.0 B2=10.7	1999MAa (99763)	559
Medium: CH3CN, 0.1 M (C4H9)4NCF3SO3. Also data for medium: 80% (v/v) CH3CN/CH2Cl/H2O, 0.1 M (C4H9)4NCF3SO3, K1=4.9, K2=5.5.									

C21H24N4			L				(7684)		
Tris(2-pyridylethyl)amine;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	sp	NaClO4	25°C	0.10M	M		K1eff=15.8	1999ADb (101251)	560
pH<5									

C22H16N2			L				CAS 6153-92-0	(4152)	
4,4'-Diphenyl-2,2'-bipyridyl									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu+	EMF	diox/w	25°C	50%	U M			1961JWa (101524)	561
Medium: 50% dioxan, 0.3 M KNO3. K(Cu(II)L2+Cu(I)=Cu(I)L2+Cu(II))=0.30									

C22H24N2S4			L				CAS 172161-13-6	(8645)	
alpha,alpha-[1,2-Ethanediy]bis(iminomethylidene)]bis-benzeneethane(dithioic) acid,									

dimethyl ester

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

Cu+ vlt non-aq 25°C 100% C K1=24.4 1999BGb (101907) 562
Method: cyclic voltammetry. Medium: MeCN, 0.10 M Bu4NPF6.

C22H36N2O6 L Bz-Cryptand 222 CAS 31250-18-7 (2269)
5,6-Benzo-4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo[8:8:8]hexacosane;

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

Cu+ EMF non-aq 25°C 100% C K1=1.55 B2= 2.39 1999THa (102272) 563
Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.

Cu+ EMF non-aq 25°C 100% U K1=3.94 1998HTb (102273) 564
B(Cu2L)=5.80

Medium: DMSO. Method: Cu(Hg)/Cu+ electrode

C23H18N2 L (5322)
4-Phenyl-2-(4-tolyliminomethyl)quinoline;

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

Cu+ sp oth/un ? ? U 1973GRa (102583) 565
K(CuCl+2L)=8.17

C24H21N3 L (5328)
2-(4-Dimethylaminophenyliminomethyl)-4-phenylquinoline;

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

Cu+ sp oth/un ? ? U 1973GRa (102922) 566
K(CuCl+2L)=10.37

C25H28N4O10 L CAS 752-13-6 (2940)
Tetraacetylriboflavine;

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

Cu+ nmr non-aq 38°C 100% U K1=3.7 B2=4.29 1975LHa (103675) 567
In acetone. B2 measured by ESR at 38 C, K1 by spectrophotometry at 25 C

C26H20N2O2 L CAS 89333-97-1 (7663)
2,9-Di(p-anisyl)-1,10-phenanthroline;

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

Cu+ sp non-aq 25°C 100% U I K1=4.7 B2=10.7 1999MAa (103854) 568
Medium: CH3CN, 0.1 M (C4H9)4NCF3SO3. Also data for medium: 80% (v/v)

CH3CN/CH2Cl/H2O, 0.1 M (C4H9)4NCF3SO3, K1=4.8, K2=6.4.

C26H24N2 L CAS 1762-39-6 (4167)
4,4'-Bis(phenylethyl)-2,2'-bipyridyl

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

Cu+ EMF diox/w 25°C 50% U M 1961JWa (103894) 569
Medium: 50% dioxan, 0.3 M KNO3. K(Cu(II)L2+Cu(I)=Cu(I)L2+Cu(II))=-0.10

C26H36N2O6 L DiBzCryptand222 (746)
5,6,14,15-Dibenzo-4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo[8.8.8]hexacosan-5,14-diene;

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

Cu+ EMF non-aq 25°C 100% C K1=1.09 B2= 2.47 1999THa (104131) 570
Medium: acetonitrile. Method: Cu(Hg)/Cu+ electrode.

Cu+ EMF non-aq 25°C 100% U K1=3.59 1998HTb (104132) 571
B(Cu2L)=5.10

Medium: DMSO. Method: Cu(Hg)/Cu+ electrode

C30H36N8O3 Furan-cryptand CAS 121954-37-8 (7451)
39,40,41-Trioxa-1,4,11,14,17,24,29,36-octaazapentacyclo[12.12.12.1.1.1]henLetetracontanadodecane;

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

Cu+ sp non-aq 25°C 100% U K1=7.1 B2=12.60 1996AAb (105253) 572
Medium: MeCN

tacyclo[12.12.12.1(6,9).1(19,22).1(31,34)]hentetetraconta-4,6,8....dodecaene

C31H38N6 L CAS 88917-40-2 (7711)
N,N,N',N'-Tetrakis[2-(2-pyridyl)ethyl]-1,3-diaminopropane;

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

Cu+ kin non-aq 25°C 100% C T H 2000LKa (105540) 573
K(Cu2LA2+O2=Cu2LO2+2A)=-0.80

Medium: CH2Cl2. A=MeCN. DH=-84 kJ mol-1, DS=-297 J K-1 mol-1.

At -90 C, K=8.48, at -50 C, K=4.18.

C32H22N2O6S2 H2L CAS 29294-38-0 (4174)
3,3'-Dimethylene-4,4'-diphenyl-2,2'-biquinolyldisulfonic acid;

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

Cu+ EMF KNO3 25°C 0.10M U B2=18.4 1967UHa (105565) 574

C32H22N4 L CAS 16291-44-4 (8171)
2,2'-Bis(6-(2,2'-bipyridyl))biphenyl;

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

Cu+ EMF non-aq 25°C 100% C K1=6.9 1988MPa (105566) 575
Medium: acetonitrile. Method: Cu electrode.

C32H40N6 L CAS 98218-51-0 (7712)
N,N,N',N'-Tetrakis[2-(2-pyridyl)ethyl]-1,4-diaminobutane;

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

Cu+ kin non-aq 25°C 100% C T H 2000LKa (105726) 576
K(Cu2LA2+O2=Cu2LO2+2A)=0.62

Medium: CH2Cl2. A=MeCN. DH=-84 kJ mol⁻¹, DS=-270 J K⁻¹ mol⁻¹.
At -90 C, K=9.90, at -50 C, K=5.57.

C33H39N11 L Pyr-cryptand CAS 141258-00-6 (7452)
1,4,12,15,18,26,31,39,42,43,44-Undecaazapentacyclo[13.13.13.1.1.1]tetratetraconta
pentadecane;

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

Cu+ sp non-aq 25°C 100% U K1=4.77 B2= 8.60 1996AAb (105917) 577
Medium: CH3CN

.13.1(6,10).1(20,24).1(33,37)]tetratetraconta-4-6-8-10(44),11...pentadecaene

C33H42N6 L CAS 98218-52-1 (7713)
N,N,N',N'-Tetrakis[2-(2-pyridyl)ethyl]-1,5-diaminopentane:

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

Cu+ kin non-aq 25°C 100% C T H 2000LKa (105931) 578
K(Cu2LA2+O2=Cu2LO2+2A)=1.76

Medium: CH2Cl2. A=MeCN. DH=-81 kJ mol⁻¹, DS=-238 J K⁻¹ mol⁻¹.
At -90 C, K=10.70, at -50 C, K=6.54.

C34H26N4O4Fe L CAS 212954-07-9 (8318)
1,1-Bis(2,2'-bipyridin-6-ylmethoxycarbonyl)ferrocene;

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

Cu+ sp mixed 20°C 80% C M K1=10.6 B2=16.70 2003HZa (106003) 579
B(Cu2L2)=22.6
B(CuAL)=10.1

Medium: 80% CH3CN/CH2Cl2, 0.10 M Bu4NClO4.
A is 2,9-dimethyl-1,10-phenanthroline.

C36H42N8 L Xylyl-cryptand CAS 172881-87-7 (7456)

1,4,12,15,18,26,31,39-Octaazapentacyclo[13.13.13.1.1.1]tetratatetracontadecane;

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

Cu+ sp non-aq 25°C 100% U B(Cu2L)=8.65 1996AAd (106317) 580

Medium: CH3CN

C36H62O11 HL Monensin CAS 17090-79-8 (737)
Monensin, 1,6-dioxaspiro[4,5]decane derivative;

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

Cu+ con non-aq 25°C 100% C K1=<1 1997PBb (106499) 581
Medium: acetonitrile. Additional method: potentiometry with ISE.

C38H38N8 L CAS 172696-99-0 (8685)
5,5'-(1,2-Ethanediy1)bis[N,N-bis(2-pyridinylmethyl)-2-pyridinemethanamine];

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

Cu+ oth non-aq 25°C 100% C T HM 1995LWb (106656) 582
K(Cu2L+O2)=-0.57
K(Cu2L(O2)+O2)=2.0

Method: manometry. Medium: EtCN. DH(Cu2L+O2)=-35.3 kJ mol⁻¹, DS(Cu2L+O2)=-129 J K⁻¹ mol⁻¹. DH(Cu2L(O2)+O2)=0.5, DS(Cu2L(O2)+O2)=40. Data -50, -90 C

C38H38N10 L CAS 153776-68-2 (7947)
[N,N'-Bis(2'-benzimidazolyl-methyl)amino]-trans-cyclohexane;

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

Cu+ oth non-aq 20°C 100% U T H 1995LSa (106657) 583
K(Cu2L+O2=Cu2L(O2))=10.95

Method: manometric. Medium:DMF. Data for 10-37 C. DH=-45.4 kJ mol⁻¹.

Also data for tetrakis(1-methyl, 1-butyl and phenylmethyl) derivatives.

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EXPLANATORY NOTES

DATA Flags are :-

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

EVALUATION Flags are :-

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

END

SC-Database

Software version = 5.81 Data version = 4.62
 Experiment list contains 4999 experiments for
 (no ligands specified)
 Metal : Cu++
 (no references specified)
 (no experimental details specified)

e- HL Electron (442)
 Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	EMF	non-aq	25°C	100%	C	I		E0(Cu(s)/Cu++)=-710 mV	1980APa	(6) 1
Medium: DMSO, 1 M NH4ClO4. E0 referred to E0(aq)=0 for the Ag(s)/Ag+ elect.										
Cu++	EMF	none	25°C	0.00	U			K(Cu + 2e)=11.332(335.2mV)	1974GNa	(7) 2
Cu++	EMF	non-aq	25°C	100%	U			K(Cu + e=Cu(I)=5.19(0.307V)	1972FDc	(8) 3
Medium: DMSO containing 0.1 M Et4NClO4; K in M units										
Cu++	vlt	non-aq	25°C	100%	U			K(Cu + Cu(s)=2Cu+)=-0.3	1972FDc	(9) 4
Medium: DMSO containing 0.1 M Et4NClO4 or LiClO4(M units)										
Cu++	vlt	NaClO4	25°C	4.00M	U			K(Cu + Cu(s)=2Cu+)=-6.06	1972Snd	(10) 5
Cu++	EMF	NaClO4	25°C	5.00M	U			K(Cu + Cu(s)=2Cu+)=-5.95	1970ARa	(11) 6
Cu++	ISE	NaClO4	25°C	0.10M	U	I		K(Cu + Cu(s)=2Cu+)=-6.0	1970DTb	(12) 7
Data also in MeOH containing 0.1 M NaClO4(K=-3.8). Method: emf with Cu amalgam electrode										
Cu++	ISE	alc/w	25°C	100%	U			K(Cu + Cu(Hg)=2Cu(I))=-2.7	1970DTb	(13) 8
Medium: MeOH, 0.1 M NaClO4. Method: emf with Cu amalgam electrode										
Cu++	EMF	KCl	135°C	100%	U			K(Cu + Cu(s)=2Cu+)=14.3	1969APa	(14) 9
Medium: (Na,K,Al)Cl										
Cu++	oth	none	50°C	0.0	U	T		K1=-4.92	1969HEa	(15) 10
Method:Estimated data.Temp.Range 50-300C.60C: -4.57,100C: -3.20,150C: -1.84										

,200C: -0.66,250C: 0.37,300C: 1.27. K: Cu+Cu(s)=2Cu(I)

 Cu++ EMF non-aq 25°C 100% U 1968BJa (16) 11

K=9.33, 276 mV

Medium: liquid HF. K: CuF2(s) + 2H + 2e = Cu(s) + 2HF

 Cu++ oth none 25°C 0.0 M H 1968LCd (17) 12

K(Cu+2e=Cu(s))=11.66, 345 mV

DH =65.6 kJ mol-1

 Cu++ kin oth/un 25°C 0.20M U 1968TBa (18) 13

K(Cu+Cu(s)=2Cu+)=-6.24

Medium: H2SO4

 Cu++ oth none 25°C 0.0 U 1965ETa (19) 14

K(Cu+Cu(s)=2Cu+)=-5.94

 Cu++ EMF oth/un 0°C var U 1961DEb (20) 15

K=29.0(1570 mV)

K: 0.5Cu2O3(s)+H+e=CuO(s)+0.5H2O. K(Cu(III)+e=Cu(II))=42.4(2300 mV) estimat.

 Cu++ EMF none 0°C 0.0 U 1961DEb (21) 16

K=11.8(640 mV)

K: CuO(s)+H+e=0.5Cu2O(s)+0.5H2O

 Cu++ oth NaClO4 25°C 1.13M U TIH 1961MIa (22) 17

K(Cu+Cu(s)=2Cu(I))=-6.25

DH(K)=85.3 kJ mol-1; K=-6.00(30 C), -5.76(35 C). In 1.13 M SO4,30 C: K=-6.11
 By chemical analysis

 Cu++ EMF non-aq 25°C 100% U T 1954PSa (23) 18

K(Cu + 2e=Cu(s))=9.43(0.279V

Medium: formamide; K=9.69(0.280V,18 C)(M units)

 Cu++ oth none 25°C 0.0 U 1952LAb (24) 19

K(Cu+2e=Cu(s))=11.38(337 mV)

From thermodynamic data

 Cu++ oth oth/un 20°C var U T 1931HEa (25) 20

K(Cu(II)+Cu(s)=2Cu(I))=-6.31

Medium: H2SO4,by analysis. K=-5.84(30 C),-5.40(40 C),-5.01(50 C),-4.62(60 C)

8H12N2 L CAS 51639-58-8 (8823)

N-Ethyl-N-2-pyridylmethylamine;

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

 Cu++ gl KNO3 25°C 0.10M C M K1=8.590 B2=14.56 2002Y0a (1039) 21

B(CuH-1L)=1.330

B(CuH-2L)=-9.888

B(CuAL)=13.793

B(CuH-1AL)=5.777

B(CuHBL)=23.742, B(CuBL)=16.394, B(CuH-1BL)=6.408; B(CuCL)=14.334,
B(CuH-1CL)=6.874. HA is gly-gly, H2B is gly-L-tyr, HC is gly-L-trp.

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

Arsenate;

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

Cu++ oth oth/un 25°C 0.0 U 1990SAa (1112) 22

*K(Cu3L2(s)+2H=3Cu+2HL)=-14.97

Calculated from thermodynamic data.

Cu++ sol oth/un 20°C var U 1956CHd (1113) 23

Kso(Cu3L2)=-35.12

AsW11039----- H7L (2468)

alpha-Heteromonoarseno-polytungstate;

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

Cu++ gl NaNO3 25°C 1.00M U K1=3.46 1984COa (1169) 24

As2W17H2061----- H8L (2469)

alpha-Heteropolydiarseno-polytungstate;

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

Cu++ gl NaNO3 25°C 1.00M U K1=7.69 1984COa (1180) 25

K1=5.23 (alpha2 isomer)

B04H4- HL Borate CAS 10043-35-3 (991)

Borate; B(OH)4-

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

Cu++ gl NaNO3 25°C 0.10M C 2000MAb (1280) 26

K(Cu+H2B04)=3.55

Cu++ oth KNO3 25°C 0.70M C K1=3.48 B2=6.13 1984BEa (1281) 27

Method: Differential pulse anodic stripping voltammetric (DPASV)

Cu++ sol oth/un 22°C var U K1=7.13 B2=12.45 1965SHc (1282) 28

K3=2.72

B3=15.2-15.7

Ks(CuOHL)=-17.3

Ks(CuL2)=-14.5

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

Bromide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu ⁺⁺	sp	non-aq	25°C	100%	U			K(CuAB+L)=3.49	1993LJa (1356)	29
Medium: 1,2-dichloroethane. HA: acetylacetone; B: N,N,N',N'-tetramethyl-ethylenediamine.										
Cu ⁺⁺	sp	non-aq	25°C	100%	U			K1=9.4 B2=12.1 B3=13.5 B4=14.1	1992BKe (1357)	30
Medium: n-BuOH, 1.0 M LiClO ₄										
Cu ⁺⁺	sp	non-aq	25°C	100%	U			K1=6.1 B2=8.4 B3=10.2 B4=10.7	1991DBa (1358)	31
Medium: propan-2-ol, 1.0 M LiClO ₄										
Cu ⁺⁺	sp	non-aq	25°C	100%	U			K1=3.2 B2=6.5 B3=7.7 B4=7.7	1990KMa (1359)	32
Medium: CH ₃ COOH										
Cu ⁺⁺	sp	alc/w	25°C	100%	U			K1=3.72 B2=5.59 B3=6.30 B4=6.32	1989KMb (1360)	33
Medium: MeOH, 1.0 M LiClO ₄										
Cu ⁺⁺	sp	non-aq	25°C	100%	U	M		K(CuA+L)=2.37	1987CCa (1361)	34
A=N-rac-5,7,7,12,14,14-hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene Medium: DMSO. Data also for DMF and MeOH, and for N-meso isomer										
Cu ⁺⁺	cal	non-aq	25°C	100%	C	IH		K1=3.48 K3=2.96, K4=1.27	1987IOb (1362)	35
Medium: DMF, 0.16M Et ₄ NClO ₄ , DH(K1)=19.6 kJ mol ⁻¹ , DH(K2)=18.5, DH(K3)=18.1, DH(K4)=16.5										
Cu ⁺⁺	cal	non-aq	25°C	100%	C	IH		K1=2.29 K3=2.50, K4=1.19	1987IOb (1363)	36
Medium: DMF, 1.0 M LiClO ₄ , DH(K1)=20.1 kJ mol ⁻¹ , DH(K2)=9.9, DH(K3)=23.6, DH(K4)=0.8										
Cu ⁺⁺	cal	non-aq	25°C	100%	U	H		K1=1.58 B2=2.57 B3=4.00 B4=4.29	1987IOb (1364)	37
DH(K1)=16.5, DH(K2)=10.8, DH(K3)= 16.1 and DH(K4)=-1.0 kJ mol ⁻¹ . DS1=86, DS2=55, DS3=82 and DS4=2J K ⁻¹ mol ⁻¹ . Medium: DMF, 1.0 M NH ₄ ClO ₄										

Cu++ sp non-aq 25°C 100% U K1=3.35 B2=5.4 1987PGc (1365) 38
 B3=8.8
 In DMF

Cu++ sp NaClO4 30°C 0.01M U M 1986KMa (1366) 39
 K(Cu2A+L)=4.78
 A=N,N',N'',N'''-Tetrakis(2-aminoethyl)-1,4,8,11-tetraazacyclotetradecane

Cu++ cal KNO3 25°C 0.50M U H 1985BPb (1367) 40
 B4=-5.0
 DH(B4)=26.8 kJ mol⁻¹; TDS(B4)=-1.7 kJ mol⁻¹

Cu++ sp alc/w 25°C 100% U I K1=3.92 B2=6.22 1985PDa (1368) 41
 Medium: 100% MeOH with varying backgrounds of LiClO4

Cu++ sp none 25°C 0.0 U 1983LTb (1369) 42
 K(CuA+L)=0.36
 A=C-meso-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetra-azacyclotetradecane.
 For C-rac isomer, K=0.51.

Cu++ sp non-aq 25°C 100% U 1983LTb (1370) 43
 K(CuA+L)=3.66
 In DMF. A=C-rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetra-azacyclotetradecane
 For C-rac isomer, K=3.81. In DMSO, K=3.20 and 3.32; In MeOH, K=4.54 and 4.43

Cu++ ISE NaClO4 25°C 3.00M U 1982WLa (1371) 44
 B6=8.42
 B7=8.58

Cu++ ISE non-aq 25°C 100% C H K1=1.55 B2=2.60 1980ABd (1372) 45
 Medium: DMSO, 1.0 M NH4ClO4. DH(K1)=8.2 kJ mol⁻¹, DS=57 J K⁻¹ mol⁻¹;
 DH(B2)=14.7, DS(K2)=42

Cu++ kin oth/un 25°C 0.20M U M 1977ASa (1373) 46
 K(CuA+Br)=0.96
 Medium: 0.2M Li-p-toluenesulfonate. A=5,5,7,12,12,14-Hexamethyl-1,4,8,11-tet
 raazacyclotetradecane

Cu++ sp oth/un 25°C ? U K1=5.0 B2=7.50 1977GPb (1374) 47
 K3=0.52
 K4=0.09

Cu++ sp oth/un 25°C 2.0M U IH K1=-0.43 1977KFa (1375) 48
 In 2.0 M LiClO4;

Cu++ sp NaClO4 25°C 2.0M C I K1=0.37 1977KFb (1376) 49
 Medium: 2.0 M LiClO4. In 4.0 M LiClO4, K1=0.60.

Cu++ sp oth/un 25°C 5.00M C K1=5.0 B2=2.5 1977KSb (1377) 50
 B3=0.52

B4=0.09

Cu++	sp	NaClO4	25°C	0.30M	U	I	K1=-0.77	1976LMb	(1378)	51
Cu++	sp	NaClO4	25°C	5.00M	U	M	K(Cu(en)2+L)=-0.16	1975RPa	(1379)	52
Cu++	cal	NaClO4	25°C	3.0M	U	H		1974BRa	(1380)	53
Medium: LiClO4. DH(K1)=12.6 kJ mol ⁻¹ , DS=31.4 J K ⁻¹ mol ⁻¹										
Cu++	kin	NaClO4	25°C	1.0M	U		K1=-0.24	1973HHb	(1381)	54
Cu++	cal	non-aq	25°C	100%	U	HM	K(Cu(en)2+L)=1.91 K(Cu(meen)2+L)=2.68	1972BPc	(1382)	55
Medium: MeOH. DH(Cu(en)2+L)=12.0 kJ mol ⁻¹ , DS=76.6 J K ⁻¹ mol ⁻¹ ; DH(Cu(meen)2+L)=6.7, DS=73.6. meen=N-methylethylenediamine										
Cu++	vlt	non-aq	25°C	100%	U		K1=3.4 B2=4.3	1972FDc	(1383)	56
Medium: DMSO, 0.1 M Et4NClO4										
Cu++	kin	oth/un	25°C	dil	U		K3K4=-1.80 B4=-4.55	1972SDc	(1384)	57
Cu++	kin	oth/un	20°C	dil	U		K(CuCl3+L)=-1.48	1972SDc	(1385)	58
Cu++	sp	none	?	0.0	U		K1=0.23	1971ACa	(1386)	59
Cu++	sp	alc/w	?	100%	U	I	K1=3.6	1971ACa	(1387)	60
Medium: MeOH. K1=4.3(EtOH), 5.3(PrOH), 6.3(i-PrOH), 7.3(BuOH)										
Cu++	sp	NaClO4	25°C	3.0M	U		K1=-0.55	1970MMj	(1388)	61
Medium: LiClO4										
Cu++	sp	NaClO4	25°C	3.0M	U		K1=-1	1969MMf	(1389)	62
Medium: LiClO4										
Cu++	sp	NaClO4	25°C	3.0M	U		K1=-0.55 K1in=-1.5 K1out=-0.60	1968MMf	(1390)	63
Medium: LiClO4										
Cu++	cal	NaClO4	40°C	2.0M	U	T H	K1=-0.04	1966KLb	(1391)	64
K1=-0.07(25 C); DH(K1)=3.8(25 C) kJ mol ⁻¹ , DS=11.5 J K ⁻¹ mol ⁻¹ . DH=4.2(40C)										
Cu++	oth	none		0.0	U		K1=0.55	1964BSd	(1392)	65
Method: refractometry										

Cu++	sp	alc/w	?	90%	U		K1=1.00		1963BHb	(1393)	66
Medium: 90% EtOH/H2O, 1 M LiClO4											
Cu++	sp	non-aq	?	100%	U				1963MYa	(1394)	67
							K1eff=2.60				
							B2eff=6.42				
In CH3CO2H containing Cu(CH3CO2)2 and LiBr.											
Cu++	sp	NaClO4	?	0.60M	U		K1=0.68		1962WKa	(1395)	68
Medium: HClO4.											
Cu++	sp	none	?	0.0	U		K1=2		1962WKa	(1396)	69
Cu++	sp	NaClO4	25°C	2.0M	U	I	K1=-0.55	B2=-1.84	1961MAF	(1397)	70
I=1 M NaClO4: K1=-0.64; I=LiBr var: K3=-1.51, K4=-2.18											
Cu++	sp	NaClO4	0°C	0.60M	U		K1=0.7		1961WKa	(1398)	71
Cu++	sp	none	25°C	0.0	U		K1=<-0.7		1960HOc	(1399)	72
Cu++	sp	NaClO4	25°C	2.30M	U	T H	K1=0.55		1960LRa	(1400)	73
							B(Cu2Br)=0.36				
Medium: 0.3M H+, 2M NaClO4. K1=0.49(12 C), 0.62(40 C). DH(K1)=8.0 kJ mol-1. B(Cu2Br)=0.24(12 C), 0.44(40 C). DH(Cu2Br)=13											
Cu++	sp	NaClO4	22°C	1.0M	U		K1=0.32		1952FAa	(1401)	74
Cu++	sol	NaClO4	25°C	1.0M	U		K1=<-0.4	B2=<-1.0	1951NLb	(1402)	75
							Kso(Cu(OH)1.5Br0.5)=-16.70				
Kso=-17.145(20 C, I=0 corr)											
Cu++	sp	none	25°C	0.0	U		K1=-0.03		1950NAa	(1403)	76
Cu++	sp	oth/un	18°C	var	U		K1=-1.20		1936JOa	(1404)	77
							K2.K3=-3.20				
Medium : HBr.											
Cu++	ISE	oth/un	18°C	var	U		K1=5.68	B2=7.24	1934RSa	(1405)	78
							K3=0.68				
							K4=0.37?				

BrO3-		HL		Bromate					(6017)		
Bromate;											
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo	
Cu++	gl	NaClO4	25°C	1.0M	U		B2=<0.31		1963LLa	(2391)	79
							Ks(CuOH1.5L0.5)=-16.13				
At I=0: Kso(Cu(OH)1.5L0.5)=-16.53											

Cu++ kin non-aq 190°C 100% U T K1=0.97 1961DLa (2392) 80
 Medium: liquid (K,Na)NO3. K1=0.5 (210 C), m units

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

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

Cu++ sp non-aq 25°C 100% U 1993LJa (2467) 81

K(CuAB+L)=3.20

Medium: 1,2-dichloroethane. HA: acetylacetone; B: N,N,N',N'-tetramethyl-ethylenediamine.

 Cu++ sp oth/un 25°C 0.02M U M 1984HDa (2468) 82

K(CuA+L)=4.5

K(CuAL+L)=2.65

A=1,4,8,11,-Tetra-azacyclotetradecane (Cyclam). Data also for 1,5,9,13-tetra-azacyclopentadecane (K=4.60) and N,N',N''N'''-tetramethylcyclam (K=5.2)

 Cu++ sp NaCl 25°C 0.0 U TIHM 1978MMe (2469) 83

K(CuH-1A+L)=3.16

Medium: NaCl or NaNO3. K=3.09(I=0.05), 3.08(I=0.1), 3.01(I=0.16), 2.87(I=0.5) at 25 C. A=CH2(CH2.HN.C(CH3)2.C(CH3)(:NOH))2. At 10 C: K=3.44; 35 C: 2.91

 Cu++ sp NaCl 20°C 0.10M U T H 1978MMe (2470) 84

K(CuH-2A+L)=4.59

Medium: NaCl or NaNO3. At 1 C, K=5.62. A=CH3.C(:NOH).C(CH3)2.NH.CH2.CH2.NH.C(CH3)2.C(N:OH).CH3

 Cu++ sp oth/un 22°C 0.0 U M 1965CCa (2471) 85

K(CuA+L)=2.4-2.95

Medium: 0 corr. A=cyclic tetramine

 Cu++ oth alc/w -45°C 60% U 1965PBa (2472) 86

B4=26.7

Medium: 60% w/w MeOH/H2O

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

Carbonate;

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

Cu++ sp oth/un 25°C 0.72M C TIH K1=4.92 1989SBc (2963) 87

Medium: seawater, S=35. K= [CuCO3]/[Cu][CO3(total)].

Data for 5-35 C. DH(K1)=10.4 kJ mol-1. At 15 C, K1=4.86.

 Cu++ gl NaCl04 25°C 0.70M C I K1=5.73 B2=9.3 1985BMb (2964) 88

K(Cu+HL)=1

Also used: Cu ISE and spectrophotometry

Cu++ sol NaClO4 25°C 0.72M C K1=6.20 1985SKc (2965) 89
 K(Cu+HCO3)=2.36
 B(CuH-1CO3)=-3.13

Data from dolubility of malachite (Cu2(OH)2CO3) in perchlorate solutions.

 Cu++ sol oth/un 25°C 0.72M M TI 1984SKb (2966) 90
 K(Cu2(OH)2L(s)=2Cu+2OH+L)=-32

Also using pH and pM electrodes. Malachite solubility study

 Cu++ gl NaCl 25°C 0.69M U K1=6.33 1983ZKa (2967) 91
 K(Cu+HCO3)=2.77

 Cu++ ix KNO3 25°C 0.01M U K1=6.8 1979BKb (2968) 92

 Cu++ ISE KNO3 25°C 0.05M C 1979SGf (2969) 93
 Kso(CuOH(CO3)0.5)=-14.42

Method: Cu ion selective electrode.
 CuOH(CO3)0.5 (malachite)=Cu+OH+0.5CO3

 Cu++ vlt KNO3 25°C 0.10M U K1=5.7 1975EAa (2970) 94

 Cu++ ISE none 25°C 0.0 U K1=6.8 1971STd (2971) 95
 K(Cu+HCO3=CuCO3+H)=-3.51

 Cu++ vlt KNO3 ? 1.80M U B2=9.8 1969FFa (2972) 96
 B3=10.5

In 1 M KNO3, using anion exchange; K(Cu+2HL)=5.9

 Cu++ sol oth/un 25°C 0.0 U K1=6.73 B2=9.83 1968SRe (2973) 97
 *Kpso(malachite)=-6.75

Kpso: 0.5Cu2(OH)2L+2H=Cu+0.5CO2(g)+1.5H2O

 Cu++ gl NaClO4 25°C 0.0 U I 1968SRe (2974) 98
 Ks(Cu2(OH)2L)=-33.16
 Ks(Cu3(OH)2L2)=-44.88

Other solubilities also reported

 Cu++ vlt KNO3 18°C 1.70M U B2=8.6 1959FBa (2975) 99

 Cu++ sol none 25°C 0.0 U K1=6.77 B2=10.01 1958SIa (2976) 100
 B(CuL(OH)2)=-15.
 Kso(azurite)=-45.96
 Kso(malachite)-33.78

Also by glass electrode. I=0 corr. Kso(azurite): Cu3(OH)2L2(s)=3Cu+2OH+2L.
 Kso(malachite): Cu2(OH)2L(s)=2Cu+2OH+L

 Cu++ sol none 25°C 0.0 U K1=6.34 1957SCa (2977) 101
 Kso(Cu2L(OH)2(s))=-31.90

 Cu++ vlt KNO3 25°C 1.0M U M 1950MEb (2978) 102

Kso(K2Cu(HL)4)=-11.5

By solubility: Ks(K2Cu(HL)4(s)+HL=2K+Cu(HL)5)=-1.98,

By polarography: Ks(Cu(OH)2(s)+3L=CuL3+2OH)=-7.2

Cu++ sol oth/un 18°C dil U 1935KAa (2979) 103

Kso(CuCO3(s))=-9.86

From thermo. data, 25 C: Kso=-9.63, K(CuCO3(s)+CO2(g)+H2O=Cu+2HCO3)=-7.14

C6N6Fe---- H4L (2191)

Hexacyanoferrate (II); Fe(II)(CN)6----

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

Cu++ con oth/un ? U 1970BEa (3520) 104

Kso=-17.0

Ks(K2Cu3L2=2K+3Cu+2L)=-34.35

Cu++ ISE none 25°C 0.0 U 1959BBb (3521) 105

K=5.89

Kso=-15.68

K(Ag4L(s)+2Cu(s)=Cu2L(s)+4Ag(s)). Method: Cu and Ag electrodes

Cu++ sol oth/un 25°C var U 1956TGb (3522) 106

Kso(Cu2L)=-15.89

Cu++ sol oth/un 25°C ca.1 U 1953WAa (3523) 107

Ks(Na2CuL)=-14.31

C6N6Fe--- H3L Ferricyanide (2491)

Hexacyanoferrate (III); Fe(III)(CN)6---

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

Cu++ con oth/un 20°C U T H 1973BCb (3614) 108

Kso=-25.1

Kso(KCu10L7=K+10Cu+7L)=-76.7

Kso=-23.7(30 C), -23.4(40 C); Kso(KCu10L7)=-71.3 (30 C), -69.1(40 C)

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

Chloride;

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

Cu++ sp oth/un 25°C 0.0 C T K1=0.27 B2=-0.63 2001BMa (3774) 109

B3=-2.44

B4=-5.90

Values calculated from data for 0-18.5 m LiCl. Data for 60 and 90 C.

Alternative model: K1=0.30, B2=-0.44, B3=-2.02, B4=-4.39, B5=-9.0.

Cu++ oth NaCl04 25°C 0.0 C K1=0.64 B2= 0.60 1997WZb (3775) 110

Evaluation of literature data (1.0-6.5 m NaClO₄ media) using SIT function.

Cu++ oth alc/w 25°C 61% C K1=20.80 1996CHF (3776) 111
Kso(CuCl₂.2H₂O)=1.96

Method: application of Pitzer theory to literature data.

Cu++ sp non-aq 25°C 100% U I K1=4 B2=7.0 1994DMb (3777) 112
B3=8.6
B4=9.6

Medium:propan-1-ol,1 M LiClO₄. In butan-2-ol K1=4.5; B2=8.0; B3=9.8; B4=10.5

Cu++ sp non-aq 25°C 100% U 1993LJa (3778) 113
K(CuAB+L)=3.60

Medium: 1,2-dichloroethane. HA: acetylacetone; B: N,N,N',N'-tetramethyl-ethylenediamine.

Cu++ sp non-aq 25°C 100% U K1=7.6 B2=11.1 1992BKe (3779) 114
B3=12.8
B4=13.4

Medium: n-BuOH, 1.0 M LiClO₄

Cu++ sp non-aq 25°C 100% U K1=5.7 B2=8.6 1991DBa (3780) 115
B3=10.2
B4=10.6

Medium: propan-2-ol, 1.0 M LiClO₄

Cu++ sol none 25°C 0.0 C K1=0.0 B2=-0.3 1989IPa (3781) 116
B3<-1.8
B4=-3.8

Extrapolated to zero from 6 M NaClO₄. In 6 M: K1=0.057, B2=-0.26, B3<-0.64, B4=-1.43. From solubility of Cu(IO₃)₂ (Kso=-7.15 at I=0)

Cu++ sp non-aq 25°C 100% C K1=6.5 B2=11.2 1989ISa (3782) 117
B3=15.9
B4=18.4

Medium: 0.2 M Et₄NClO₄, AN-DMSO mixture of 0.025 mole fraction DMSO

Cu++ sp non-aq 25°C 100% C H K1=6.06 B2=10.4 1989ISa (3783) 118
B3=14.6
B4=16.9

Medium: 0.2 M Et₄NClO₄, AN-DMSO mixture of 0.05 mole fraction DMSO
DH(K1)=5.9 kJ mol⁻¹, DH(B2)=24.2, DH(B3)=29.4, DH(B4)=23.5 by calorimetry

Cu++ sp non-aq 25°C 100% C H K1=5.87 B2=9.8 1989ISa (3784) 119
B3=13.6
B4=15.6

Medium: 0.2 M Et₄NClO₄, AN-DMSO mixture of 0.10 mole fraction DMSO
DH(K1)=7.4 kJ mol⁻¹, DH(B2)=22.8, DH(B3)=31.6, DH(B4)=25.7 by calorimetry

Cu++ sp alc/w 25°C 100% U K1=2.45 B2=4.20 1989KMb (3785) 120

B3=5.36

B4=5.65

Medium: MeOH, 1.0 M LiClO₄

Cu++ sp non-aq 25°C 100% U IH K1=3.14 B2=4.7 1989SIa (3786) 121

B3=6.44

B4=7.0

In 0.1 mole fr. 2,2,2-trifluoroethanol-DMSO, 0.4M Et₄NClO₄. Also 0.2-0.95mf
By calorimetry, DH(K1)=7.9 kJ mol⁻¹; DH(B2)=17.3; DH(B3)=32.4; DH(B4)=30.2

Cu++ ISE non-aq 25°C 100% U B2=10.5 1988SGa (3787) 122

Medium: DMSO, 0.1 M Et₄NCl

Cu++ sp non-aq 25°C 100% U 1988SSa (3788) 123

K4=3.39

Medium: 1,2-dichloroethane. K4: NBu₄(CuCl₃)+NBu₄Cl=(NBu₄)₂(CuCl₄)

Cu++ sp non-aq 25°C 100% U M 1987CCa (3789) 124

K(CuA+L)=2.65

A=N-rac-5,7,7,12,14,14-hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene
Medium: DMSO. Data also for DMF and MeOH, and for N-meso isomer

Cu++ sp non-aq 25°C 100% U K1=4.71 1986GPa (3790) 125

Medium: N,N-dimethylformamide

Cu++ sp NaClO₄ 30°C 0.01M U M 1986KMa (3791) 126

K(Cu₂A+L)=5.14

A=N,N',N'',N'''-Tetrakis(2-aminoethyl)-1,4,8,11-tetraazacyclotetradecane

Cu++ oth NaCl 25°C 5.0M C K1=0.37 B2= 0.17 1986RAa (3792) 127

K3=-0.34

K4=-1.10

Re-evaluation of solubility data in 1983RFa by use of non-linear
regression. Medium: 0.1-5.0 M NaCl/ NaClO₄ (I=5.0 M).

Cu++ sp NaClO₄ 25°C 1.00M U T K1=0.07 1985ABb (3793) 128

At 15 C: K1=0.09; 45 C: 0.15; 70 C: 0.29; 90 C: 0.68

Cu++ EMF non-aq 300°C 100% U K2=5.38 1985BBd (3794) 129

K3=3.34

K4=0.97

In fused KCl-AlCl₃; constants the average of three data sets.

Cu++ cal non-aq 25°C 100% U H K1=9.69 B2=17.64 1985IJa (3795) 130

K3=4.94

K4=2.85

DH(K1)=-11.7, DH(K2)=-5.0, DH(K3)=-4.4 and DH(K4)=-34.3 kJ mol⁻¹.

DS(K1)=147, DS(K2)=135, DS(K3)=80 and DS(K4)=-61 J K⁻¹ mol⁻¹ in CH₃CN

Cu++ con non-aq 25°C U T K1=2.74 B2= 4.87 1984ISf (3796) 131

In DMSO. For 40 C K1=2.85; B2=5.09; for 50 C K1=2.88, B2=5.15

Cu++ con non-aq 25°C U T K1=2.39 B2= 4.00 1984ISf (3797) 132
In DMFA. For 40 C K1=2.45; B2=4.16; for 50 C K1=2.47, B2=4.18

Cu++ sp NaClO4 25°C 1.00M U K1=0.70 1983Bwa (3798) 133

Cu++ vlt oth/un 20°C 0.70M C K1=<0.95 1983GDb (3799) 134
Method: polarography. Medium: 0.70 M (NaClO4+NaCl).

Cu++ sp none 25°C 0.0 U K(CuA+L)=0.18 1983LTb (3800) 135

A=C-meso-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetra-azacyclotetradecane.
For C-rac isomer, K=0.26.

Cu++ sp non-aq 25°C 100% U K(CuA+L)=4.11 1983LTb (3801) 136

In DMF. A=C-rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetra-azacyclotetradecane
For C-rac isomer, K=4.04. In DMSO, K=4.08 and 3.95; In MeOH, K=4.58 and 4.46

Cu++ sol NaCl 25°C 5.00M U H K1=0.40 B2=0.46 1983RFa (3802) 137
K3=-0.046
K4=-1.60

Determined by the effects of chloride ion on the solubility of copper(II)
iodate in 1.0-5.0 M NaCl/NaClO4(I=5.0 M)

Cu++ cal NaClO4 25°C 5.00M C H 1982APa (3803) 138
DH(K1)=-12.3 kJ mol⁻¹, DH(B2)=-23.0, DH(B3)=-11

Cu++ ISE alc/w 25°C 100% U K1=5.08 B2=8.48 1982DKa (3804) 139
K3=3.23

Cu++ sp non-aq 25°C 100% U I K1=12.0 B2=22.7 1982EMa (3805) 140
B3=28.9
B4=34.1
Medium: propylene carbonate, 1.0 M Et4N(ClO4,Cl)

Cu++ sp non-aq 25°C 100% U I K1=5.01 B2=5.89 1982LPa (3806) 141
Medium: DMSO, 0.2 M M(ClO4)2

Cu++ dis NaClO4 25°C 3.00M U B4=6.59 1982WLa (3807) 142
B5=6.62

Method: potentiometry

Cu++ sp NaClO4 25°C 3.00M U K1=-0.28 B2=-0.24 1981AHa (3808) 143
B3=-1.96
B4=-2.44

Cu++ con non-aq 25°C 100% U K1=5.22 B2=8.12 1980LPc (3809) 144

Medium: Dimethyl sulfoxide.

Cu++ kin oth/un 25°C 0.20M U 1977ASa (3810) 145
K(CuA+Cl)=1.15

Medium: 0.2M Li-p-toluenesulfonate. A=5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane

Cu++ sp NaClO4 25°C 5.00M U K1=0.18 B2=-0.22 1977BSa (3811) 146
K3=-0.9
K4=-1.4

Cu++ sp oth/un 25°C 2.0M U IH K1=-0.14 1977KFa (3812) 147
In 2.0 M LiClO4;

Cu++ sp NaClO4 25°C 2.0M C IH K1=0.72 1977KFb (3813) 148
Medium: 2.0 M LiClO4. DH(K1)=13.6 kJ mol⁻¹, DS(K1)=44 J K⁻¹ mol⁻¹.
In 4.0 M LiClO4, K1=0.92.

Cu++ sp NaClO4 25°C 3.0M C K1=-0.004 B2=-0.40 1977SJf (3814) 149
Determined for mixtures of 3M NaClO4, 3 M NaCl.

Cu++ dis NaNO3 RT 1M U K1=1.06 B2= 1.56 1977SKg (3815) 150
K3=0.01
K4=-0.29

Extraction into benzene from HNO3 with trioctylamine

Cu++ sp NaClO4 25°C 1.00M U K1=0.36 B2=0.22 1976Cwd (3816) 151

Cu++ sp NaClO4 25°C 1.0M C I K1=1.05 1976KFb (3817) 152
Values for 0.5-7.0 M NaClO4. At I=0, K1=3.0. Also data for 0.5-4.0 M
LiClO4 (K1=0.54 at I=1.0 M), and 0.5-8.0 M HClO4 (K1=1.45 at I=2.0 M).

Cu++ sp NaClO4 25°C 5.0M U K1=0.60 B2=0.67 1976KSc (3818) 153
B3=0.29
B4=-0.64

Cu++ sp NaCl 25°C 0.10M U I K1=0.1 1975MSa (3819) 154

Cu++ sp NaClO4 25°C 5.00M U M 1975RPa (3820) 155
K(Cu(en)2+L)=-0.29

Cu++ ISE non-aq 25°C 100% U I K1=9.1 B2=17.0 1974BMa (3821) 156
B3=24.0
B4=30.3

Medium: LiCl in tributylphosphate, saturated with H2O; AgCl/Cl⁻ electrode

Cu++ cal NaClO4 25°C 3.0M U H 1974BRa (3822) 157
K1=-0.37 (Cu(H2O)6L formed)
K1'=0.34 (Cu(H2O)5L formed)

Medium: LiClO4;DH(K1)=9.2 kJ mol⁻¹, DS(K1)=25 J K⁻¹ mol⁻¹. DH(K1')=12.1,

DS=33

Cu++ cal alc/w 25°C 5% U IH K1=-0.01 1974BRb (3823) 158
Medium: 5% v/v MeOH/H2O. DH(K1)=12.1 kJ mol⁻¹, DS=41.8. Data to 75% MeOH and
also in EtOH/H2O mixtures

Cu++ ix NaClO4 20°C 0.69M U K1=0.93 B2=0.79 1974MId (3824) 159
B3=0.46
B4=0.01

Medium: HClO4

Cu++ sol none 25°C 0.0 U 1974MSd (3825) 160
Ks(Cu2(OH)1.4Cl0.6)=-16.1

Cu++ sp oth/un 25°C 9.00M U K1=1.03 B2=1.60 19740Va (3826) 161
B3=1.77
B4=2.21

Medium: H2SO4

Cu++ EMF non-aq 25°C 100% U K1=7.30 B2=14.34 1973BKd (3827) 162
B3=19.75
B4=24.2

Medium: TBP, HCl

Cu++ kin NaClO4 25°C 1.0M U K1=0.15 1973HHb (3828) 163

Cu++ sp none 25°C 0.0 U K1=0.2 1973LIa (3829) 164

Cu++ sp NaClO4 25°C 5.0M U K1=0.06 B2=0.67 1973SCc (3830) 165
B3=0.20
B4=-0.77

Cu++ sp non-aq 25°C 100% U K1=4.4 B2=7.40 1973SIa (3831) 166
K3=4.2(1.6?)
K4=2.0

Medium: DMSO, 0.1 M Et4NClO4. Cu amalgam electrode also used

Cu++ sp non-aq 20°C 100% U K1=6.29 B2=10.81 1973SSh (3832) 167
Medium: acetone

Cu++ oth non-aq 25°C 100% U H 1972BPc (3833) 168
K(Cu(en)2+L)=2.14
K(Cu(meen)2+L)=2.66

Medium: MeOH. DH(en)=12.1 kJ mol⁻¹, DS=81.2 J K⁻¹ m⁻¹. DH(meen)=9.2, DS=81.6
Data also for 2 other diamines

Cu++ vlt non-aq 25°C 100% U K1=4.5 B2=7.5 1972FDc (3834) 169
B3=9.1

Medium: DMSO, 0.1 M Et4NClO4

Cu++ ISE non-aq 25°C 100% U K1=12.2 B2=20.80 1972SCa (3835) 170
K3=6.6

Medium: propene carbonate, 0.1 M (C3H7)4NC104

Cu++ kin oth/un 25°C var U 1972SDc (3836) 171
B3=-2.79

Medium: (H,Li)Cl. Temperature: 10-25 C

Cu++ sp none ? 0.0 U K1=0.00 1971ACa (3837) 172

Cu++ sp alc/w ? 100% U I K1=3.30 1971ACa (3838) 173
Medium: MeOH. K1=4.00 (EtOH); 5.00 (PrOH); 6.00 (iso-PrOH); 7.00 (BuOH)

Cu++ sp KCl rt var U B2=-0.66 1971KGa (3839) 174
K(CuL2+2H+2L=H2CuL4)=-2.86

Medium: HCl

Cu++ sp oth/un 25°C var U T 1971MKf (3840) 175
K1in=-0.52
K1out=-0.30

n5 C: K1in=-0.59, K1out=-0.49; 35 C: K1in=-0.48, K1out=-0.30; 45 C: -0.35,
-0.28. At I-0(corr): K1in=-0.07, K1out=0.24

Cu++ sp NaClO4 0°C 3.50M U I K1=0.15 1971WBa (3841) 176
Medium: HClO4. K1=1.90(I=7)

Cu++ sp NaClO4 25°C 3.0M U K1=-0.06 1970MMj (3842) 177
Medium: LiClO4

Cu++ kin oth/un 90°C 0.20M U 1970MTc (3843) 178
K4=-0.28

Medium: HCl

Cu++ EMF non-aq 25°C 100% U K1=8.0 B2=15.90 1970SFa (3844) 179
K3=7.1
K4=3.7

Medium: MeCN. Py polarography: B3=24.3, B4=28.1

Cu++ sp alc/w ? 100% U K1=6.0 1969AKa (3845) 180
Medium: EtOH, LiCl

Cu++ oth none 25°C 0.0 U T K1=0.53 B2=-0.06 1969HEa (3846) 181
B3=-1.48
B4=-3.54

Evaluated from literature data. At 100 C: values: 1.54, 1.15, 0.04, -1.63;
150 C: 2.57, 2.36, 1.52, 0.18

Cu++ sp NaClO4 25°C 3.0M U K1=-0.4 1969MMf (3847) 182
Medium: LiClO4

Cu++ sp NaClO4 25°C 3.0M U K1=-0.06 1968MMF (3848) 183
 K1in=-0.35
 K1out=-0.38
 Medium: LiClO4

Cu++ oth oth/un 23°C var U K2=-1 1968SCc (3849) 184
 K3=-1
 Method:electrical migration or transference number. Medium:LiCl var

Cu++ sol oth/un 25°C 0.0 U 1968SMd (3850) 185
 Ks(CuOH1.4Cl0.6)=-16.10(fresh)
 Ks(CuOH1.5Cl0.5)=-17.52(aged)

Cu++ vlt alc/w 25°C 100% U I K1=4.2 B2=6.5 1967MIc (3851) 186
 Medium: MeOH, 0.1 M LiClO4. In i-BuOH: B2=13.5, B3=16.3. In acetone: B3=25.1
 Also values corrected for LiClO4 pairs

Cu++ oth none 0°C 0.0 U K1=0.4 1966HPa (3852) 187
 Method: freezing point

Cu++ cal NaClO4 40°C 2.0M U T H K1=0.15 1966KLb (3853) 188
 K1=0.09(25 C). DH(K1)=6.60(25 C),8.28(40 C) kJ mol⁻¹; DS=23.7 J K⁻¹ mol⁻¹

Cu++ oth oth/un 25°C 0.0 U K1=0.3 1966MBb (3854) 189

Cu++ nmr oth/un ? var M K1=-0.11 B2=-0.81 1966VKa (3855) 190

Cu++ EMF non-aq 25°C 100% U K1=9.7 B2=7.9 1965MIa (3856) 191
 K3=7.1
 K4=3.7
 Medium:MeCN, 0.1 M Et4NClO4

Cu++ ix NaClO4 30°C 1.0M U K1=1.18 B2=0.87 1962DCa (3857) 192
 B3=0.79
 B4=0.88

Cu++ oth KNO3 -3°C sat U K1=0.43 1962FCa (3858) 193
 Method: freezing point

Cu++ ix NaCl 25°C 10.0M U 1962MIa (3859) 194
 K(H+CuCl4)=0.9
 K(H+HCuCl4)=0.18
 Medium: LiCl

Cu++ ix NaClO4 20°C 0.69M U K1=0.98 B2=0.69 1962MSc (3860) 195
 K3=-0.14
 K4=-0.55
 B4=ca.0

Cu++ gl none 25°C 0.0 U T 1960BBa (3861) 196

$K_{so}(\text{Cu}(\text{OH})_{1.5}\text{L}_{0.5}) = -17.35$

$K = 5.35$

$K_{so} = -16.65(50\text{ C}), -16.3(60\text{ C}), -16.1(75\text{ C})$. $K: 2\text{Cu}(\text{OH})_{1.5}\text{L}_{0.5}(\text{s}) + \text{OH} = 2\text{CuO}(\text{s}) + \text{L} + \text{H}_2\text{O}$. $K = 4.9(50-65\text{ C}), 5.1(75\text{ C})$

Cu++ sp NaClO4 25°C 2.30M U T H K1=0.74 1960LRa (3862) 197
B(Cu2L)?=0.72

K1=0.59(12 C), 0.87(40 C); B(Cu2L)?=0.53(12 C), 0.89(40 C)
DH(K1)=17 kJ mol⁻¹, DH(Cu2L?)=22

Cu++ oth oth/un 0°C sat U I K1=0.17 1959KEb (3863) 198
Method: freezing point, medium: KClO3 sat. In KClO4 sat. K1=0.66.
I=0 corr.: K1=0.95

Cu++ gl none 25°C 0.0 U 1958BBa (3864) 199
Kso(Cu(OH)1.5L0.5)=-17.38

Cu++ ix NaNO3 ? 1.50M U K1=-0.40 1958TRa (3865) 200

Cu++ sp non-aq 25°C 100% U K1=4.10 B2=7.18 1956GAa (3866) 201
K3=1.57
K4=0.12
B4=8.89

Medium: acetone

Cu++ sp oth/un 22°C var U 1953KIa (3867) 202
B(Cu2L4)=2.15

Cu++ sp none 25°C 0.0 U K1=0.08 1953NAb (3868) 203

Cu++ sol none 25°C 0.0 U K1=0.40 1951MOa (3869) 204

Cu++ sol NaClO4 25°C 1.0M U K1=<-0.40 B2=<0.15 1951NLb (3870) 205
Kso(Cu(OH)1.5L0.5)=-17.16

Cu++ sp NaClO4 25°C 1.0M U IH K1=0.11 B2=-0.53 1950MDa (3871) 206
Medium: HClO4. DH(K1)=2.5 kJ mol⁻¹, DS=10 J K⁻¹ mol⁻¹. K1=0.14(46.9 C)

Cu++ sp none 25°C 0.0 U K1=0.05 1950NAa (3872) 207

Cu++ gl none 25°C 0.0 U 1949NTa (3873) 208
Kso(Cu(OH)1.5L0.5)=-17.265

Cu++ sp none 22°C 0.0 U K1=0 B2=-0.7 1946BJb (3874) 209
K3=-1.5
K4=-2.3

Cu++ ISE oth/un rt var U K1=2.15 B2=2.9 1939BAb (3875) 210
K3=0.7

Cu++ ISE oth/un 18°C var U K1=2.80 B2=4.40 1934RSa (3876) 211
 K3=0.49
 K4=0.73

 ClO2- HL Chlorite CAS 13898-47-0 (6143)
 Chlorite;

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

Cu++ sp NaClO4 25°C 1.0M C K1=0.03 1991FGc (6007) 212
 Method: UV spectrophotometry.

 ClO3- HL Chlorate CAS 7790-93-4 (971)
 Chlorate;

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

Cu++ nmr KCl 20°C 0.20M U 1983KRa (6015) 213
 B(CuH-1L)=0.87
 B(CuH-2L)=-8.79
 B(CuH-1L2)=3.22
 B(CuH-3L2)=-5.69

 Cu++ cal oth/un 25°C 1.00M U H 1975ARa (6016) 214
 DH(K1)=-6.51 kJ mol⁻¹. DS = -28.4 J K⁻¹ mol⁻¹. Medium: 1.0 M NaClO3

 Cu++ kin NaClO4 25°C 1.0M U K1=-0.34 1973HHb (6017) 215

 Cu++ gl oth/un 25°C 0.0 U I 1963LLa (6018) 216
 Kso(Cu(OH)1.5L0.5)=-15.89

Also solubility. In 1 M NaClO4: K1=<-0.15, B2=<1.12, Kso=-15.69

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

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

Cu++ con mixed 25°C 20% C K1=1.24 2003SIa (6111) 217
 Medium: 20% w/w propylene carbonate/ethylene carbonate.

 Cu++ con non-aq 25°C 100% U K1=1.66 1981LGa (6112) 218
 Medium: DMSO; K1 in DMSO/benzene (mole fraction 0.3)=1.94

 Cu++ con alc/w 25°C 100% U K1=2.29 1974WPa (6113) 219
 Medium: MeOH, 0 corr

 Cu++ con non-aq 25°C 100% U T K1=1.9 1973DFa (6114) 220
 Medium: MeCN. K1=1.4(-30 C), 1.5(-15 C)

 Cu++ ISE none 25°C 0.0 U T 1968HRb (6115) 221

$K_{so}(\text{Cu}(\text{py})_4\text{L}_2=\text{Cupy}_4+2\text{L})=-4.52$

$K_{so}=-4.73(15 \text{ C}), -4.26(35 \text{ C})$. Method: C104 ISE

Cu++ con non-aq 25°C 100% U M 1961BHb (6116) 222
 $K(\text{Cu}(\text{bpy})_2+\text{L})=3$
 Medium: nitrobnzene. $K=3.5$ by spectrophotometry

Cu++ gl none 25°C 0.0 U 1949NTa (6117) 223
 $K_{so}(\text{Cu}(\text{OH})_2+\text{L})=\text{ca.}-17$

 CrO4-- H2L Chromate CAS 7738-94-5 (2382)
 Chromate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	none	25°C	0	U		$K_1=3.27$ $K_{so}(\text{CuL}_2+\text{Cu}(\text{OH})_2)=-48.6$	1994B0a (6450)	224

Cu++ sol none 25°C 0.0 U 1951PCa (6451) 225
 $K_{so}=-5.44$

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	sp	NaClO4	30°C	0.01M	U	M	$K(\text{Cu}_2\text{A}+\text{L})=3.93$	1986KMa (6583)	226
A=N,N',N'',N'''-Tetrakis(2-aminoethyl)-1,4,8,11-tetraazacyclotetradecane									

Cu++ ISE R4N.X 25°C 0.05M U I $K_1=1.46$ 1983SBa (6584) 227
 Medium: 0.05 M Et4NF. In MeOH, 0.05 Et4NF, $K_1=4.52$

Cu++ nmr oth/un 25°C 2.20M U $K_1=0.76$ 1982SZa (6585) 228

Cu++ ISE NaClO4 25°C 1.00M U I $K_1=1.4$ 1981KBb (6586) 229

Cu++ ISE NaClO4 25°C 3.00M U $K_1=1.06$ 1976KBa (6587) 230

Cu++ cal oth/un 25°C 0.50M U H $K_1=0.81$ 1974ARc (6588) 231
 $\text{DH}(K_1)=14.9 \text{ kJ mol}^{-1}$, $\text{DS}=65 \text{ J K}^{-1} \text{ mol}^{-1}$

Cu++ ISE NaNO3 25°C 0.08M C I $K_1=0.87$ 1974GCa (6589) 232
 When $\text{I}=0.05 \text{ M}$: $K_1=0.93$, $K_2=0.85$

Cu++ ISE NaClO4 25°C 1.0M U $K_1=0.84$ 1972BHc (6590) 233

Cu++ ISE oth/un 25°C 1.0M U $K_1=0.64$ 1970UTa (6591) 234

Cu++ vlt NaClO4 30°C 1.0M U $K_1=0.61$ 1969B0b (6592) 235

Cu++ EMF NaClO4 20°C 1.0M U K1=0.93 1969VAa (6593) 236
B3=1.6

Electrode: quinhydrone electrode

Cu++ vlt NaClO4 25°C 1.0M U K1=0.83 1963MHa (6594) 237

Cu++ EMF NaClO4 25°C 0.50M U T H K1=0.70 1958CPa (6595) 238
K(Cu+HF=CuF+H)=-2.21

DH(K1)=3.8 kJ mol⁻¹, DS=25 J K⁻¹ mol⁻¹; DH(*K1)=-11, DS=-79

15 C: K1=0.72, *K1=-2.13; 35 C: K1=0.75, *K1=-2.25. At I=0 corr K1=1.23

Cu++ EMF NaClO4 20°C 1.00M U K1=0.95 1956ARa (6596) 239

Cu++ EMF NaClO4 25°C 0.50M U T H K1=0.70 1955PAa (6597) 240
K1=0.72(15 C), K1=0.75(35 C), DH(K1)=3.8kJ mol⁻¹, DS=25 J K⁻¹ mol⁻¹

At I=0 corr: DS(K1)=46

GeW11039----- H8L CAS 37369-86-1 (2466)

alpha-Heteromonogermanium-polytungstate;

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

Cu++ gl NaNO3 25°C 1.00M U K1=5.98 1984COa (7461) 241

HPO3-- H2L Phosphite CAS 13598-36-2 (6305)

Phosphite;

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

Cu++ sol NaNO3 25°C 3.50M U B2=4.57 1964NAb (7497) 242
Kso=-6.72

Ks2=-2.15

H2O L Water CAS 7732-18-5 (6115)

Water

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

Cu++ sol non-aq 25°C 100% U 1968GGg (7554) 243

Ks(CuCl2(s)+L)=1.72

Ks(CuCl2(s)+2L)=2.89

Medium: dioxan

Cu++ sol non-aq 25°C 100% U I 1967GGb (7555) 244

Ks(CuSO4(s)+4L)=-7.9

Ks(CuSO4(s)+6L)=-10.85

Medium: acetone. In dioxan: -7.75(4L); -10.65(6L)

Cu++ vlt non-aq ? 100% U K1=1.75 B2=3.25 1964NIa (7556) 245

K3=1.00

K4=0.75

Medium: acetone, LiClO4. In acetone, 0.1 M Et4NClO4: K1=1.75, K2=1.25, K3=0.80, K4=0.65

Cu++ oth alc/w 27°C ? U I M 1963FPa (7557) 246

K(CuL4S2+L=CuL5S+S)=1.41

K(CuL5S+L=CuL6+S)=-0.26

Medium:EtOH(S)/H2O mixture. For S=acetone in acetone/H2O : K=2.51, -0.57

Cu++ vlt non-aq 25°C 100% U I K1=2.85 B2=4.81 1962LIa (7558) 247

K3=1.14

K4=1.02

K5=0.52

K6 to K9=ca.0.5

Method: current-voltage studies. Medium: MeNO2, 0.1 M Et4NClO4. In EtOH: K1=-0.23, K2=-0.51, K3=-0.86, K4=-0.93, K5=-1.14, K6=-1.17. Data also by IR

Cu++ sp alc/w 25°C 100% U 1954JOa (7559) 248

Kav=-0.72

Medium: EtOH, NO3

Cu++ sp alc/w 25°C 100% U 1954JOa (7560) 249

K(Cu(en)3+L)=-0.74

Medium: EtOH, Cl

H2PO2- HL Hypophosphite CAS 6303-21-5 (6304)

Hypophosphite;

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

Cu++ kin NaClO4 35°C 0.20M U 1972SGb (7632) 250

K(Cu+H3L=CuH2L+H)=0.56

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

Iodide;

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

Cu++ sp non-aq 25°C 100% U 1993LJa (7660) 251

K(CuAB+L)=3.32

Medium: 1,2-dichloroethane. HA: acetylacetone; B: N,N,N',N'-tetramethyl-ethylenediamine.

Cu++ sp non-aq 25°C 100% U M 1987CCa (7661) 252

K(CuA+L)=2.19

A=N-rac-5,7,7,12,14,14-hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene
Medium: DMSO. Data also for DMF and MeOH, and for N-meso isomer

Cu++ sp NaClO4 30°C 0.01M U M 1986KMa (7662) 253

K(Cu2A+L)=4.46

A=N,N',N'',N'''-Tetrakis(2-aminoethyl)-1,4,8,11-tetraazacyclotetradecane

Cu++ sp none 25°C 0.0 U 1983LTb (7663) 254

K(CuA+L)=0.48

A=C-meso-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetra-azacyclotetradecane.
For C-rac isomer, K=0.81.

Cu++ sp non-aq 25°C 100% U 1983LTb (7664) 255

K(CuA+L)=2.97

In DMF. A=C-rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetra-azacyclotetradecane
For C-rac isomer, K=3.18. In DMSO, K=2.08 and 2.34; In MeOH, K=4.26 and 4.32

Cu++ sp NaClO4 25°C 5.00M U M 1975RPa (7665) 256

K(Cu(en)2+L)=-0.15

Cu++ cal non-aq 25°C 100% U H 1972BFa (7666) 257

K(Cu(en)2+I)=1.73

K(CuA2+I)=2.83

Medium: MeOH. DH(Cu(en)2+L)=11.9 kJ mol⁻¹, DS=72.8 J K⁻¹ mol⁻¹.
DH(CuA2+L)=6.6, DS=76. A=trien. Data for three other diamines

Cu++ cal alc/w 25°C 100% U H 1972BPc (7667) 258

K(Cu(meen)2+L)=2.62

Medium: MeOH. A=N-methylethylenediamine. DH(K)=4.23 kJ mol⁻¹, DS=64.0

Cu++ sp oth/un 18°C 1.0M U M 1956Y0a (7668) 259

K(Cu(en)2+L)=2.00

I03- HL Iodate CAS 7782-68-5 (1257)
Iodate;

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

Cu++ sol none 25°C 0 M I 1989IPb (8440) 260

Kso=-7.15

Extrapolated from 6 M NaClO4. Kso (6 M)=-6.226

Cu++ sol NaClO4 25°C 1.0M U T H 1973GGa (8441) 261

Kso(Cu3L6(H2O)2)=-6.08

Medium: LiClO4. DH(Kso)=55.7 kJ mol⁻¹(25 C). Kso=-6.35(1 C), -6.21(15 C),
-5.98(35 C)

Cu++ sol NaClO4 25°C 1.0M U T H 1973GGa (8442) 262

Kso(Cu3L6(D2O)2)=-6.41

Medium: LiClO4 in D2O. DH(Kso)=76.2 kJ mol⁻¹(25 C). Kso=-6.82(1 C),
-6.59(15 C), -6.29(35 C)

Cu++ sol none 25°C 0.0 U TIH 1963RBA (8443) 263

Kso(CuL2.H2O)=-7.13

I=0 corr. Kso=-7.31(14.7 C), -6.97(35 C). DH(so)=28 kJ mol⁻¹, DS=-41;
 In D2O K(CuL2.D2O)=-7.69(14.7 C), -7.51(25 C), -7.34(35 C). DH(so)=29,DS=-46

 Cu++ sol none 25°C 0.0 U 1962LLa (8444) 264
 Kso(Cu(OH)1.5L0.5)=-17.56

Cu++ sol NaCl04 rt 1.0M U 1959RAa (8445) 265
 Kso(CuL2)=-6.12

Cu++ sol none 25°C 0.0 U K1=0.82 1951LWa (8446) 266
 Kso(CuL2)=-7.12

Cu++ sol none 25°C 0.0 U K1=0.82 1951MOa (8447) 267
 Kso(CuL2)=-7.13

Cu++ sol none 25°C 0.0 U 1948KEa (8448) 268
 Kso(CuL2)=-7.135

Cu++ ISE oth/un 25°C var U 1914AUa (8449) 269
 Kso(CuL2)=-6.88?

Cu++ ISE oth/un 25°C var U 1913SPa (8450) 270
 Kso(CuL2)=-6.84

I04- HL Periodate CAS 13444-71-8 (6063)
 Periodate;

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

Cu++ gl none 25°C 0.0 U 1964PCa (8596) 271
 Kso(Cu(OH)1.5(HL)0.5)=-21.29
 Kso(Cu(OH)1.6(HL)0.4)=-22.02
 Kso(CuNa0.5(OH)2(HL)0.5)=-26.6

MoO4-- H2L Molybdate (443)
 Molybdate;

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

Cu++ sol oth/un 25°C dil U 1980GSb (8695) 272
 Ks(CuMoO4)=-6.55

ISE also used

Mo12O42Ce----- H8L (2923)
 Cerium-12-molybdate;

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

Cu++ gl oth/un 20°C 0.10M U K1=4.47 B2=8.13 1982TBa (8766) 273

Mo12042U----- H8L (2922)

Uranium-12-molybdate;

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

Cu++ gl oth/un 20°C 0.10M U K1=5.18 B2=9.08 1982TBa (8769) 274

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

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

Cu++ sp R4N.X 25°C 2.0M C T H K1=4.35 B2= 7.85 2001TRa (8901) 275
B3=10.94
B4=12.82

Medium: 2.0 m NH4NO3. Extrapolated from data for 30-150 C.
DH(K1)=-17.2 kJ mol⁻¹, DH(B2)=-41.6, DH(B3)=-74.7, DH(B4)=-88.4.

Cu++ gl R4N.X 25°C 0.10M U 1995KBb (8902) 276
K(CuA+L)=3.74
K(CuAL+L)=0.71

Medium: 0.1 M NH4NO3. H3A=NTA

Cu++ sp NaClO4 25°C 0.20M U 1991CCb (8903) 277
K(CuA+L=CuAL)=1.95

A is rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane

Cu++ gl oth/un 25°C 2.0M U TI K1=4.219 B2= 7.97 1990ISb (8904) 278
K3=2.961

Medium:NH4NO3 also for T=98 C K1=2.980;K2=2.420; K3=1.742;K4=1.069
For I=5.0 M , T=25 C K1=4.640; K2=3.808, K3=3.201; K4=2.439;

Cu++ cal oth/un 35°C 1.00M U TI 1990VBa (8905) 279
DH(K1)=-20.9; DH(B2)=-43.6; DH(B3)=-65.3; DH(B4)=-90.6 kJ mol⁻¹;
DS(K1)=9.3; DS(B2) =-0.2; DS(B3)=-18.4; DS(B4)=-62.2 J K⁻¹ mol⁻¹

Cu++ gl KNO3 25°C 0.20M M M 1988SKd (8906) 280
K(Cu(dien)+L)=3.59
K(H+L)=9.12

Cu++ gl R4N.X 25°C 1.0M C M K1=4.101 B2= 7.59 1985CTb (8907) 281
B3=10.31
B4=12.423
B(CuAL2)=16.67
K(CuA+2L)=6.86

Medium: 1.0 M NH4NO3. H2A is salicylic acid. K(CuL2+A)=9.08.

Cu++ gl R4N.X 25°C 2.0M C K1=4.18 B2=7.70 1984NDa (8908) 282
B3=10.46
B4=12.52

Cu ⁺⁺	gl	NaNO ₃	25°C	0.10M	A	M		1982SSa	(8909)	283
							K(CuA+L)=3.60			
A=uridine-5'-triphosphate										
Cu ⁺⁺	sp	KCl	23°C	1.00M	C			1980BAa	(8910)	284
							K ₅ =-0.379			
							K(CuL ₄ +OH=CuL ₄ OH)=0.97			
Cu ⁺⁺	ISE	KNO ₃	25°C	0.10M	U			1980NWa	(8911)	285
							B ₄ =12.53			
Cu ⁺⁺	ISE	KNO ₃	25°C	0.10M	U			1975NWa	(8912)	286
							B ₄ =12.49			
Cu ⁺⁺	vlt	oth/un	30°C	var	U			1971SSe	(8913)	287
							B ₄ =13.15			
Cu ⁺⁺	gl	R4N.X	30°C	2.0M	U		K ₁ =4.14	B ₂ =7.66	1970BLc	(8914) 288
							K ₃ =2.87			
							K ₄ =2.15			
Medium: NH ₄ NO ₃										
Cu ⁺⁺	gl	R4N.X	30°C	2.0M	U		K ₁ =4.149	B ₂ =7.65	1970BSb	(8915) 289
							K ₃ =2.890			
							K ₄ =2.135			
Medium: NH ₄ NO ₃										
Cu ⁺⁺	gl	NaClO ₄	25°C	1.0M	U		B ₂ =7.1		1970GHb	(8916) 290
							B ₃ =10.2			
							B ₄ =12.1			
Solubility also used. B(Cu(OH)L)=10.7, B(Cu(OH)L ₃)=14.4, B(Cu(OH) ₂ L ₂)=16.3										
Cu ⁺⁺	sp	oth/un	25°C	var	U				1970Rba	(8917) 291
							K(Cu(en) ₂ +L)=-0.4			
							K(Cu(en) ₂ +CuL ₄ =2Cu(en) ₂ L ₂)=0.9			
Cu ⁺⁺	gl	R4N.X	25°C	1.0M	U		K ₁ =4.14	B ₂ =7.61	1969ESb	(8918) 292
							B ₃ =10.48			
							B ₄ =12.52			
Medium: NH ₄ NO ₃										
Cu ⁺⁺	vlt	KNO ₃	30°C	0.50M	U				1967FHa	(8919) 293
							B ₄ =12.3			
							B(Cu(OH)L ₃)=14.9			
							B(Cu(OH) ₂ L ₂)=15.7			
							B(Cu(OH) ₃ L)=16.3			
Cu ⁺⁺	gl	NaNO ₃	22°C	2.0M	U		K ₁ =4.09	B ₂ =7.54	1967HLa	(8920) 294
							B ₃ =10.55			

B4=12.63

Cu++ vlt oth/un ? ? U 1967RSb (8921) 295

B4=12.95

Cu++ gl R4N.X 20°C 1.0M U M K1=4.15 B2=7.65 1966FLb (8922) 296

B3=10.54

B4=12.67

Also by distribution. Medium: NH4NO3. Also data for Cu-NH3-py complexes

Cu++ vlt R4N.X 30°C 2.0M U B2=11.66 1966GCa (8923) 297

B4=14.38

Medium: NH4NO3

Cu++ sp R4N.X 25°C 1.0M U K1=4.16 B2=7.47 1965MBb (8924) 298

K3=3.38

K4=2.20

B4=13.05

Medium: NH4ClO4

Cu++ oth none 40°C 0.0 U T 1961MLa (8925) 299

B4=9.98

B5=11.00

By partial pressure of NH3. I=0 corr. B4=9.58(60 C), B5=9.56(60 C)

Cu++ cal R4N.X 25°C 2.0M U H 1959SCe (8926) 300

In NH4NO3. DH(K1)=-22.72 kJ mol⁻¹; DH(K2)=-23.47; DH(K3)=-22.93; DH(K4)=-22.59; DH(K5)=-11.30; DS1=4.6; DS2=-10.5; DS3=-20.1; DS4=-33.9; DS5=-46.

Cu++ gl R4N.X 30°C 2.0M U K1=4.13 B2=7.66 1959SRa (8927) 301

K3=2.87

K4=2.15

Medium: NH4NO3

Cu++ gl R4N.X 25°C 2.0M U T H K1=4.27 B2=7.86 1958PAa (8928) 302

K3=3.00

K4=2.19

B4=13.05

Medium: NH4NO3. DH(K1)=-24.7 kJ mol⁻¹, DS=-2.1; DH(K2)=-23.4, DS=-10.0; DH(K3)=-25.1, DS=-26.8; DH(K4)=-10.5, DS=5.0; DH(B4)=-83.7; Data for 10-40 C

Cu++ cal R4N.X 27°C 2.0M U H 1957MIb (8929) 303

In NH4NO3. T=26.8C. DH(K1)=-23.4 kJ mol⁻¹; DH(K2)=-23.0; DH(K3)=-23.0; DH(K4)=-22.5; DH(K5)=-20.9; DS1=1.3; DS2=-9.6; DS3=-21.3; DS4=-34.3; DS5=-79.5

Cu++ cal R4N.X 27°C 2.0M U H 1957YMb (8930) 304

In NH4NO3. T=26.8C. DH(K1)=-23.4 kJ mol⁻¹; DH(K2)=-23.0; DH(K3)=-23.4; DH(K4)=-22.2; DH5=-21.3; DS1=1.3; DS2=-9.6; DS3=-22.6; DS4=-33.1; DS5=-81.2.

Cu++ gl R4N.X 25°C 1.0M U H 1955PBa (8931) 305

B4=12.63

K5=-0.55

Also by spectrophotometry. Medium: NH₄NO₃. DH(B4)=-83.7 kJ mol⁻¹, DS=-39
K5 by Cu/Hg electrode. DH(K5)=-13.4, DS=-55.6

Cu++ sp oth/un rt var U 1954BBa (8932) 306

K6=ca.-2.5

Cu++ gl R4N.X 25°C 1.0M U K1=4.27 B2=7.82 1954LLa (8933) 307

K3=2.90

K4=2.18

Medium: NH₄NO₃.

Cu++ ISE oth/un 25°C var U 1953LUa (8934) 308

B4=14.14

Cu++ gl R4N.X 25°C 2.10M U T H B2=7.865 1953SPc (8935) 309

B4=13.05

Medium: NH₄NO₃. Also data for 10-40C. DH(B2)=-50.2 kJ mol⁻¹; DH(B4)=-98.7;
DS(B2)=-18.0; DS(B4)=-82.4.

Cu++ cal oth/un ? var U H 1953YGa (8936) 310

DH(B4)>-79 kJ mol⁻¹, DH(K5)<-46.

Cu++ cal oth/un rt dil U H 1952FYa (8937) 311

DH(B4)=-88.3 kJ mol⁻¹; DS=-67.8 J K⁻¹ mol⁻¹

Cu++ ISE oth/un 18°C var U 1951STa (8938) 312

B4=14.31

Cu++ gl none 25°C 0.0 U K1=4.01 1944NAa (8939) 313

Cu++ gl R4N.X 30°C 2.0M U I K1=4.15 B2=7.65 1941BJa (8940) 314

K3=2.89

K4=2.13

B4=12.67

Also by spectrophotometry. Medium: NH₄NO₃. At I=0 corr.: K1=3.99, K2=3.34,
K3=2.73, K4=1.96, B4=12.03. DH(B4)=-82.4 kJ mol⁻¹, DH(K5)=-13.8

Cu++ vlt R4N.X rt 2.0M U 1940SFa (8941) 315

B4=13.5

Medium: NH₄NO₃.

Cu++ EMF R4N.X 18°C 2.0M U 1934BJb (8942) 316

B4=13.34

K5=-0.45

Method: Cu/Hg electrode. Medium: NH₄NO₃.

Cu++ sp none 25°C 0.0 U T 1932BJa (8943) 317

K5=-0.60

I=0 corr. K5=-0.49(15 C)

Cu++	sp	oth/un	rt	var	U					1932R0a	(8944)	318
K5=-0.52												
Cu++	cal	oth/un	13°C	var	U	H				1931BJa	(8945)	319
DH(B4)=-82.4 kJ mol ⁻¹ ; DH(K5)=ca.-14.6.												
Cu++	oth	R4N.X	18°C	2.0M	U					K1=4.31	B2=7.98	1931BJa (8946) 320
K3=3.04												
K4=2.30												
(K5=-0.46)												
By partial pressure of NH ₃ . Medium: NH ₄ NO ₃ . I=0 estimated: K1=4.25, K2=3.61, K3=2.98, K4=2.24, K5=-0.52												
Cu++	ISE	oth/un	?	var	U					1930KNa	(8947)	321
B4=15.74												
Cu++	sp	oth/un	16°C	var	U					1928J0a	(8948)	322
B4=9.3												

NH3O		L				Hydroxylamine;	CAS	5470-11-1	(1808)			
Hydroxylamine; NH ₂ .OH												

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values		Reference	ExptNo	
Cu++	EMF	alc/w	20°C	50%	U			K1=3.08	B2=3.58	1978ITa	(9245)	323
Cu++	gl	NaClO4	25°C	0.10M	U			K1=2.8		1968EFa	(9246)	324
K(Cu(bpy)+L)=2.2												
Cu++	gl	NaNO3	20°C	0.50M	U			K1=2.4	B2=4.10	1963SZa	(9247)	325

NO		L				Nitric oxide	CAS	10102-43-9	(850)			
Nitric oxide;												

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values		Reference	ExptNo	
Cu++	oth	alc/w	25°C	100%	U	TI	M			1963MFC	(9288)	326
K(CuCl ₂ +NO(g)=CuCl ₂ L)=1.19												
Method: Chemical analysis. Medium: MeOH. K=2.05(16.3 C). In EtOH K=2.0(26 C) 1.7(30 C). Plus other equilibria												
Cu++	sp	alc/w	20°C	100%	U		M			1961FRa	(9289)	327
K(CuCl ₂ +L)=0.96												
K(CuCl ₂ L=Cu(I)Cl ₂ +L+)=-1.81												
K(CuBr ₂ L=Cu(I)Br ₂ +L+)=-2.02												
Cu++	sol	alc/w	25°C	100%	U	T	H			1958GLa	(9290)	328
Kp(Cu+NO(g))=0.35												

Medium: EtOH. Kp=0.82(0.4 C), 0.53(10 C), 0.13(31 C). DH=-30.5 kJ mol⁻¹

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu ⁺⁺	sp	NaClO ₄	25°C	0.50M	U	I	K1=1.341 B2=1.683	1971TLa	(9331) 329
K1=1.192,B2=1.436(I=1.0), K1=1.256,B2=1.450(I=2.0), K1=1.361,B2=1.535(I=3.0) K1=1.368,B2=1.783(I=4.0)									
Cu ⁺⁺	sp	oth/un	25°C	0.0	U		K1=2.02 B2=3.03	1971TLa	(9332) 330
Cu ⁺⁺	sp	KNO ₃	25°C	5.0M	U		K1=0.95 B2=1.35	1970GAa	(9333) 331
K3=0.08 K4=-0.12 K5=-0.34									
Cu ⁺⁺	gl	NaClO ₄	20°C	1.0M	U	M	K1=1.23 B2=1.48	1951FRa	(9334) 332
B(CuL(NH ₃))=5.28, B(CuL ₂ (NH ₃))=5.20. By spec., 1 M: K1=1.30, K2=0.35									
Cu ⁺⁺	sp	oth/un	22°C	var	U		K1=0.57	1948GVa	(9335) 333
Cu ⁺⁺	sp	NaNO ₃	25°C	5.0M	U	I	K1=1.26 B2=1.56	1946KSa	(9336) 334
K3=-0.40									

At I=1.0 M: K1=1.20, K2=0.22, K3=-0.78

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu ⁺⁺	con	non-aq	25°C	100%	U		K1=1.48	1980GPa	(9464) 335
Medium: DMSO									
Cu ⁺⁺	ISE	none	25°C	0.0	U		K1=0.44	1979SHa	(9465) 336
Cu ⁺⁺	cal	NaNO ₃	25°C	1.00M	U	H		1975ARa	(9466) 337
DH(K1)=-4.70 kJ mol ⁻¹ . DS = -18.3 J K ⁻¹ mol ⁻¹ .									
Cu ⁺⁺	sp	NaNO ₃	25°C	0.10M	U	I	K1=0.10	1975MSa	(9467) 338
Cu ⁺⁺	cal	NaClO ₄	25°C	3.0M	U	H	K1=-0.4	1974BRa	(9468) 339
Medium: LiClO ₄ DH(K1)=2.1 kJ mol ⁻¹ , DS=0 J K ⁻¹ mol ⁻¹									
Cu ⁺⁺	sp	alc/w	25°C	40%	U	IH	K1=0.0	1974MSe	(9469) 340
K1in=-0.70									
Medium: MeOH/H ₂ O, 2M LiClO ₄ . K1=-0.30, K1in=-1.00(0%). 0.29, -0.40(60%). 0.59, -0.10(79%). 0.77, 0.09(86.5%)									

Cu++ sp alc/w 25°C 65% U IH K1=0.40 1974MSe (9470) 341
 K1in=-0.30
 Medium: EtOH/H2O, 2 M LiClO4. K1=-0.04, K1in=-0.70(41.5%). 0.18, -0.52(57.5%)
 0.48, -0.06(74%). 0.93, 0.22(85%)

 Cu++ sp diox/w 25°C 30% U IH K1=0.79 1974MSe (9471) 342
 K1in=-0.80
 Medium: Dioxan/H2O, 2 M LiClO4. K1=0.11, -0.96(10%). 0.41, -0.89(20%).
 0.98, -0.44(51.5%). 0.92, -0.42(61%). 1.03, -0.28(67%). 1.08, 0.02(73%)

 Cu++ ISE oth/un 25°C 0.50M U I K1=-0.13 1973FRa (9472) 343
 Method: amalgam electrode. Medium: LiClO3. K1=-0.01, B2=-0.62(I=1).
 K1=-0.06, B2=-0.62, B3=-0.85(I=2). K1=-0.02, B2=-0.47, B3=-0.82(I=3) Cont'd

 Cu++ ISE oth/un 25°C 4.0M U I K1=0.11 B2=-0.38 1973FRa (9473) 344
 B3=-0.52
 B4=-1.2
 Method: amalgam electrode. Medium: LiClO3. K1=0.54, B2=-0.39, B3=-1.2(I=0)

 Cu++ kin NaClO4 25°C 1.0M U K1=-0.13 1973HHb (9474) 345

 Cu++ sp NaNO3 25°C var U T K1=-1.2 1972DCa (9475) 346
 Method: Raman spectra

 Cu++ sp NaClO4 25°C 3.0M U I K1=-0.22 1970MMj (9476) 347
 Medium: LiClO4

 Cu++ sp non-aq ? 100% U K3K4=4.23 1963TCa (9477) 348
 Medium: Me2CO

 Cu++ sol R4N.X 18°C 2.0M U 1957BJa (9478) 349
 Medium: NH4NO3. Kso(Cu(OH)1.5L0.5)=-15.68

 Cu++ gl oth/un 25°C 0.0 U Kso(Cu(OH)1.5L0.5)=-16.373 1949NTa (9479) 350

 N2H4 L Hydrazine CAS 302-01-2 (2117)
 Hydrazine; H2N.NH2

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

 Cu++ gl R4N.X 25°C 0.10M U M 1995KBb (10054) 351
 K(CuA+L)=3.51
 Medium: 0.1 M (NH3NH3)(NO3)2. H3A=NTA

 Cu++ gl oth/un 25°C dil U K1=4.85 B2=8.93 1972AGc (10055) 352
 K3=3.26
 K4=2.85
 k5=1.7

Cu++ gl NaClO4 25°C 0.10M U K1=4.2 1968EFa (10056) 353

Cu++ gl NaClO4 25°C 0.10M U M 1968EFa (10057) 354
K(Cu(bpy)2+L)=3.5

Cu++ gl NaClO4 30°C 1.0M U K1=6.67 1967BSb (10058) 355

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

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

Cu++ sp KNO3 25°C 1.00M U M 19950Na (10120) 356
K(CuA+L)=0.60
K(CuB+L)=1.098
K(CuC+L)=1.098

A=1,4,8,11-tetraaza-1,4,8,11-tetraethylcyclooctatetradecane, B=1,4,8,11-tetraaza-1,4-dimethyl-8,11-diethyl analogue, C=8,11-dipropyl analogue

Cu++ gl NaClO4 25°C 1.0M C K1=2.38 B2=4.01 1993AGa (10121) 357
K3=1.32
K4=2.13

Constants calculated by a Leden's graphical method. By matrix method(4x4).
K1=2.39, K2=1.69, K3=1.08, K4=2.34

Cu++ sp non-aq 25°C 100% U 1993LJa (10122) 358
K(CuAB+L)=3.55

Medium: 1,2-dichloroethane. HA: acetylacetone; B: N,N,N',N'-tetramethyl-ethylenediamine.

Cu++ sp none 4°C 0.0 U M 1991CAa (10123) 359
K(CuA+L at site A)=ca.3.0
K(CuA+L at site B)=ca.2.3
K(CuA+L at site C)<<2.3

A=ascorbate oxidase

Cu++ sp non-aq 25°C 100% U M 1987CCa (10124) 360
K(CuA+L)=2.95

A=N-rac-5,7,7,12,14,14-hexamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene
Medium: DMSO. Data also for DMF and MeOH, and for N-meso isomer

Cu++ sp oth/un 25°C 0.02M U M 1984HDa (10125) 361
K(CuA+L)=2.1

A=1,4,8,11-Tetra-azacyclotetradecane (Cyclam). Data also for A=1,5,9,13-tetraazacyclopentadecane (K=1.39) and N,N',N'',N'''-tetramethylcyclam (K=1.79)

Cu++ sp none 25°C 0.0 U 1983LTb (10126) 362
K(CuA+L)=0.60

A=C-meso-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetra-azacyclotetradecane.

For C-rac isomer, K=0.93.

Cu++ sp non-aq 25°C 100% U 1983LTb (10127) 363
K(CuA+L)=3.99

In DMF. A=C-rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetra-azacyclotetradecane
For C-rac isomer, K=4.04. In DMSO, K=3.32 and 3.41; In MeOH, K=4.65 and 4.60

Cu++ sp KCl 25°C 0.10M U B2=2.90 1980NOB (10128) 364
B3=3.02

Cu++ sp NaClO4 25°C 1.00M U K1=0.66 1977GAa (10129) 365

Cu++ sp NaClO4 25°C 5.00M U M 1975RPa (10130) 366
K(Cu(en)2+L)=-0.23

Cu++ cal alc/w 25°C 100% U HM 1972BFa (10131) 367
K(Cu(en)2+L)=2.48
K(Cu(trien)2+L)=2.79

Method:DH(Cu(en)2+L)=14.56 kJ mol⁻¹, DS=96.1. DH(Cu(trien)2+L)=12.9, DS=96.5
Data also for other diamines

Cu++ sp NaClO4 25°C 4.0M U K1=2.56 B2=4.48 1972NSa (10132) 368
B3=6.11
B4=7.82

By solubility Kso=-7.81

Cu++ vlt NaClO4 25°C 4.0M U B4=7.81 1972Snd (10133) 369

Cu++ sp oth/un 20°C 0.0 U K1=2.86 1971NEb (10134) 370

Cu++ sol oth/un 25°C 0.0 U K1=2.86 B2=4.53 1971SNa (10135) 371
B3=6.23
B4=6.65

Medium: 0 corr. Kso=-7.75

Cu++ gl NaClO4 25°C 3.0M U I K1=2.75 1967MRa (10136) 372
K1=2.04(I=1.0)

Cu++ sp oth/un ? dil U K1=2.43 1960ENa (10137) 373

Cu++ sp NaClO4 20°C 0.20M U I K1=2.37 1957SOa (10138) 374
K1=2.44(I=0.1), 2.56(I=0.05)

Cu++ cal oth/un 25°C 0.0 U H 1956GWc (10139) 375
DH(Kso(CuL2(s)))=15.0 kJ mol⁻¹

Cu++ sol oth/un rt dil U 1943SCa (10140) 376
Kso(CuL2(s))=-9.2

OCN- HL Cyanate CAS 661-20-1 (6165)
 Cyanate, Fulminate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	oth/un		var	U			K1=2.70 K3=1.43 K4=1.31	1967L0b (10287)	377

Cu++	sp	alc/w		100%	U			B(CuL1.5)=5.1(?)	1967QVa (10288)	378
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OH- HL Hydroxide (57)
 Hydroxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U			*K1=-6.29 *B2=-13.10	2001PSb (10483)	379

Cu++	gl	NaNO3	25°C	0.10M	C			*K1=-6.29 *B2=-13.10	2000MSa (10484)	380
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Cu++	sol	NaNO3	25°C	0	C			*Ks(Cu(OH)2+2H=Cu+2H2O)=9.3	1999HEb (10485)	381
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Calculated from data for 0.002 M NaNO3, pH 6.0-9.0.

Cu++	gl	NaClO4	30°C	0.20M	U			*K1=-6.29 *B2=-13.10	1999PGa (10486)	382
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Cu++	gl	NaNO3	30°C	0.20M	U			*K1=-6.29 *B2=-13.10	1999PPa (10487)	383
------	----	-------	------	-------	---	--	--	-------------------------	-----------------	-----

Cu++	gl	alc/w	25°C	50%	C			*K1=-5.94 *B2=-12.00	1998MCb (10488)	384
------	----	-------	------	-----	---	--	--	-------------------------	-----------------	-----

Cu++	gl	NaNO3	25°C	0.10M	U			*K1=-6.29 *B2=-13.10	1998MSe (10489)	385
------	----	-------	------	-------	---	--	--	-------------------------	-----------------	-----

Cu++	gl	NaClO4	25°C	0.10M	C	TIH		K(2Cu+H2O=Cu2OH+H)=-6.08 K(2Cu+2H2O=Cu2(OH)2+2H)=-10.72	1997RSb (10490)	386
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Data for 10 - 45 C, I=0 - 1 M. DH(Cu2OH)=46.1 kJ mol⁻¹, DS=35.
 DH(Cu2(OH)2)=68.1, DS=27.

Cu++	sp	KNO3	25°C	1.00M	U		1996FSa (10491)	387
							$K(\text{Cu}(\text{OH})_3+\text{OH})=0.90$	
Cu++	gl	NaClO4	30°C	0.10M	C	K1=7.96	1995STa (10492)	388
Cu++	vlt	NaNO3	20°C	3.00M	U T		1994NVa (10493)	389
							$B(\text{Cu}(\text{OH})_4)=15.5$	
							$B(\text{Cu}(\text{OH})_4)=14.1$ (50 C), $B=13.7$ (70 C)	
Cu++	gl	NaNO3	25°C	0.10M	U		1992CJa (10494)	390
							$K(2\text{CuA}=\text{Cu}_2\text{A}_2(\text{OH})_2+2\text{H})=-10.350$	
							$K(2\text{CuB}=\text{Cu}_2\text{B}_2(\text{OH})_2+2\text{H})=-10.774$	
							A=2,2'-bipyrimidine; B=2,2'-bipyridyl.	
Cu++	gl	KNO3	25°C	0.10M	M		19920Ma (10495)	391
							*K1=-7.223	
							*B(3,4)=-21.05	
Cu++	sol	none	25°C	0.0	M TI		1992ZJb (10496)	392
							Method: solubility of CuO in sodium phosphate solutions at 19-262 C.	
							$K(\text{Cu}(\text{OH})_3+\text{H}_2\text{O}=\text{Cu}(\text{OH})_4+\text{H})=-13.62$, $K(\text{CuO}(\text{s})+2\text{H}_2\text{O}=\text{Cu}(\text{OH})_3+\text{H})=-18.04$	
Cu++	vlt	NaClO4	20°C	0.70M	C	K1=6.3	B2=10.00	1991CSa (10497) 393
							Method: differential pulse polarography.	
Cu++	gl	alc/w	30°C	50%	C		1991MCb (10498)	394
							*K1=-5.94	
							*B2=-12.00	
							Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3.	
Cu++	gl	NaNO3	37°C	0.10M	U		1991MGb (10499)	395
							*K1=-6.29	
							*B2=-13.05	
Cu++	gl	diox/w	30°C	50%	U		1990MCb (10500)	396
							*K1=-6.82	
							*B2=-13.60	
							Medium: 50% v/v dioxane/H2O, 0.2 M NaNO3.	
Cu++	gl	alc/w	30°C	50%	C		1988MCb (10501)	397
							*K1=-5.94	
							*B2=-12.00	
							Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3.	
Cu++	gl	diox/w	30°C	50%	C		1987MSd (10502)	398
							*K1=-5.92	
							*B2=-12.00	
							Medium: 50% v/v dioxane/H2O, 0.2 M NaNO3.	

Cu++ oth none 25°C 0.0 C T 1986VAa (10503) 399
 $K(\text{CuO}(s)+\text{H}_2\text{O}=\text{Cu}(\text{OH})_2)=-8.6$
 Method: extrapolated from solubility data for CuO (tenorite) at 200-450 C.

Cu++ gl NaNO3 37°C 0.15M C 1985RDb (10504) 400
 $*K_1=-7.59$
 $*B(2,2)=-10.23$
 $*B(3,4)=-20.7$
 Alternative model: $*K_1=-7.66$, $*B(2,2)=-10.26$, $*B(1,2)=-13.9$.

Cu++ ISE NaNO3 25°C 0.10M U I 1984GLb (10505) 401
 $*K_1=-7.1$
 $*B_2=-16.0$

Cu++ gl NaClO4 25°C 3.00M C 1984NEa (10506) 402
 $*B(2,1)=-5.75$

Cu++ gl NaClO4 25°C 3.0M U T 1982BBb (10507) 403
 $*B(2,1)=-6.02$
 $*B(2,2)=-10.93$
 $*K_1=-7.4$
 50C, $*B(1,2)=-5.65$

Cu++ sp oth/un 200°C u U 1981BPd (10508) 404
 $*K_1=0.008$

Cu++ gl NaNO3 30°C 0.50M U $K_1=7.04$ $B_2=14.92$ 1980NAd (10509) 405
 $K_3=5.34$

Cu++ ISE NaClO4 25°C 0.05M C I 1980PKb (10510) 406
 $*K_1=-8.1$
 $*B_2=-16.4$
 Method: Cu ion selective electrode. In 0.70 m NaClO4, $*K_1=-8.1$, $*B_2=-16.7$.

Cu++ gl KNO3 25°C 0.10M U 1979Sdb (10511) 407
 $*K_1=-7.71$
 $*B(2,2)=-10.99$
 $*B(3,4)=-21.62$

Cu++ ISE KNO3 25°C 0.05M C 1979SGf (10512) 408
 $*K_{\text{so}}(\text{Cu}(\text{OH})_2)=9.58$
 Method: Cu ion selective electrode.

Cu++ ISE KNO3 25°C 0.05M C 1979SGf (10513) 409
 $*K_1=-7.52$
 $*K_{\text{so}}(\text{Cu}(\text{OH})_2)=9.58$
 $K_{\text{so}}(\text{Cu}_2(\text{OH})_2\text{CO}_3)=-28.84$
 Method: Cu ion selective electrode.

Cu++ gl KNO3 25°C 0.10M U 1978WNb (10514) 410

$$*B(2,2)=-10.72$$

Cu++ ISE NaCl 25°C dil C 1977VMa (10515) 411

$$*B2=-13.7$$

Method: Cu ion selective electrode. Medium: 0.001 M NaCl.

Cu++ gl NaNO3 25°C 0.50M C 1977VNa (10516) 412

$$*K1=-6.82$$

$$*B(2,2)=-10.60$$

Cu++ gl NaClO4 25°C 0.10M U H 1976ACb (10517) 413

$$*K1=-7.72$$

$$*B(2,2)=-10.75$$

$$*B(3,4)=-21.38$$

$$K(2CuOH=Cu2(OH)2)=4.69$$

DH(*K1)=35 kJ mol⁻¹, DH(*B(2,2))=77.0, DH(*B(3,4))=109, DH(2CuOH=Cu2(OH)2)=6.3

Cu++ sol R4N.X 25°C 2.00M C 1976IBa (10518) 414

$$Kso(Gerhardtite)=-15.75$$

Medium: 2 mol dm⁻³ Me4NNO3. Kso for (Cu)(OH)1.5(NO3)0.5; Kso=-16.12 in 2 M diethylammonium nitrate

Cu++ kin NaClO4 25°C 0.50M U 1975LRa (10519) 415

$$K4=0.90$$

Cu++ ISE KNO3 25°C 0.10M U 1973PBa (10520) 416

$$Kso(Cu(OH)2(s)=Cu+2OH)=-18.3$$

Cu++ gl diox/w 25°C 10% U I 19720Ka (10521) 417

$$*K1=-7.44$$

$$*B(2,1)=-6.22$$

$$*B(2,2)=-11.35$$

$$*B(3,2)=-10.12$$

K(Cu(OH)2(s)+2H=Cu+2H2O)=8.0. Medium: 10% dioxan/H2O, 3 M LiClO4
In 50% dioxan, *K1=-7.74, *B(2,1)=-6.40, K=8.4

Cu++ gl NaClO4 25°C 3.00M U 19720Ka (10522) 418

$$*K1=-7.54$$

$$*B(2,1)=-6.22$$

$$*B(2,2)=-11.12$$

$$*B(3,2)=-10.36$$

K(Cu(OH)2(s)+2H=Cu+2H2O)=8.3. Medium: LiClO4

Cu++ cal NaClO4 25°C 3.00M U H 1970ARb (10523) 419

$$*B(2,2)=-10.26$$

DH(*B(2,2))=66.1 kJ mol⁻¹

Cu++ kin NaClO4 35°C 0.20M U T 1970BSf (10524) 420

$$*K1=-2.1$$

*K1=-2.0(40 C), -1.9(45 C)

Cu++	gl	KNO3	37°C	0.15M	U		1970CHc (10525)	421
						*K1=-7.6 *B(2,2)=-10.5		
Cu++	sol	NaClO4	25°C	1.00M	U	B2=13.0 B3=14.7 B4=15.8 Kso(Cu(OH)2(s)=Cu+2OH)=-19.1	1970GHb (10526)	422
Cu++	gl	NaClO4	25°C	3.00M	U	*K1=-7.22 *B(2,2)=-10.75	1970KAb (10527)	423
Cu++	oth	none	25°C	0.0	U	K(Cu(OH)2(s)=Cu(OH)2)-4.6	1969DPb (10528)	424
Method:Estimated data.Also DG for many reactions								
Cu++	oth	none	60°C	0.0	U T	*Kso=6.63	1969HEa (10529)	425
Method:Estimated data. *Kso=5.56(100 C), 4.50(150 C). 3.72(200 C), 3.09(250 C), 2.59(300 C) (tenorite)								
Cu++	cal	NaClO4	25°C	3.00M	U H	DH(*B(2,2))=66.0 kJ mol ⁻¹ , DS=18.4 J K ⁻¹ mol ⁻¹	1968APa (10530)	426
Cu++	gl	diox/w	25°C	55%	U	*K1=-7.60 *B(2,2)=-10.95	19680Ha (10531)	427
Medium: 55% dioxan, 3 M LiClO4								
Cu++	sol	none	25°C	0.0	M	K1=6.0 K3=1.24 K4=0.14 Kso=-19.89	B2=13.18 1968SMd (10532)	428
Cu++	gl	KNO3	?	0.10M	U I	K1=5.4 B(2,2)=16.8 B(3,4)=33.5	B2=12.9 1967MSb (10533)	429
K1=6.1, B2=13.2, B(2,2)=17.1, B(3,4)=34.1(I=0.01); K1=5.7, B2=13.1, B(2,2)=16.9, B(3,4)=33.7(I=0.05). B(2,2)=16.4(I=0.5)								
Cu++	gl	none	25°C	0.00	U	K1=6.4 B(2,2)=17.2 B(3,4)=34.4	B2=13.3 1967MSb (10534)	430
Cu++	sol	NaClO4	25°C	0.20M	U	*Kso(Cu(OH)2)=8.92 *Kso(CuO)=7.89	1965SAc (10535)	431

Cu++	gl	none	75°C	0.0	U		1954DOa (10549)	445
						Kso(CuO)=-19.9		

Cu++	cal	oth/un	?	2.0M	U	H	1953SLa (10550)	446
							DH(*Kso(Cu(OH)2(s)+2H=Cu+2H2O))=-55.9 kJ mol ⁻¹ (HClO4), -50.8(HCl), -55.7(HBr)	

Cu++	gl	KCl	30°C	0.10M	U		1952CCa (10551)	447
						*K1=-6.8		

Cu++	EMF	none	18°C	0.0	U		1950AFa (10552)	448
						Kso(CuO)=-19.88		

Cu++	gl	none	25°C	0.0	U		1949NTa (10553)	449
						Kso(CuO)=-19.66		
						Kso(Cu(OH)2)=-18.585		

Cu++	gl	none	20°C	0.0	U		1947GSa (10554)	450
						Kso(CuO)=-18.3		

Cu++	sol	oth/un	?	1.0M	U		1944FEa (10555)	451
						Ks(Cu(OH)2+H2O+2OH)=-3.81		
						K(Cu(OH)2(s)+2OH)=-2.72		
						Kso=-20.00		
						B4=16.12		

Cu++	gl	none	18°C	0.0	U		1943PEa (10556)	452
						*K1=-7.97		
						*B(2,2)=-10.89		
						*B(2,1)=-6.82		

Cu++	gl	oth/un	25°C	var	U	I	1939HAa (10557)	453
							*B(2,2)=-10.86	
							*B(2,2): K(2Cu+2H2O=Cu2(OH)2+2H). At I=0 *B(2,2)=-10.5 to -10.9	

Cu++	gl	none	25°C	0.0	U		K1=6.47	19380Ga (10558)
								454

Cu++	gl	none	25°C	0.0	U			19380Ka (10559)
							Kso(CuO(s))=-18.2	455

Cu++	gl	oth/un	15°C	var	U			1937CBa (10560)
							*K1=-7.9	456

Cu++	gl	none	25°C	0.0	U			1937QUa (10561)
							*B2=-13.68	457

Cu++	sol	none	25°C	0.0	U			1936MJa (10562)
							K(CuO(s)+H2O+OH=Cu(OH)3)=-4.99	458
							Ks(Cu(OH)2+H2O+2OH)=-4.09	
							K4=0.90	
							*K4=-13.10	

Cu++	gl	oth/un	18°C	0.02M	U			K1=7.53 *K1=-6.53	1935BJa (10563)	459
Cu++	kin	oth/un	100°C	dil	U T			K1=6.60	1933JEa (10564)	460
By distribution, 20 C: K1=7.22										
Cu++	EMF	oth/un	18°C	var	U			Kso(CuO)=-20	1925BRa (10565)	461
Cu++	ISE	oth/un	19°C	dil	U			Kso(Cu(OH)2(s))=-12.77	1924JGa (10566)	462
Cu++	sol	oth/un	18°C	var	U			Ks(Cu(OH)2(s)+2OH+H2O)=-4.08 K(Cu(OH)2(s)+2OH)=-2.78	1923MUa (10567)	463
Cu++	kin	oth/un	100°C	dil	U			K1=7.77 *K1=-4.60	1913KUa (10568)	464
Cu++	ISE	oth/un	17°C	var	U			Kso=-19.0	1909ALa (10569)	465
Kso: K(CuO(s)+H2O=Cu+2OH); method:emf with Cu electrode										

P04---		H3L	Phosphate					CAS 7664-38-2	(176)	
Phosphate;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.03M	C			K(Cu+2HL)=9.4	2000BAa (12949)	466
Cu++	gl	NaNO3	25°C	0.10M	M			K(Cu+HL)=3.33	1996SSa (12950)	467
Cu++	gl	NaNO3	25°C	0.10M	C	M		K1=3.33 K(Cu(bpy)+L)=3.42 K(Cu(phen)+L)=3.46	1996ZSa (12951)	468
Cu++	EMF	NaClO4	25°C	3.0M	C	I		K(Cu+H2PO4)=0.66 K(Cu+2H2PO4)=1.02 K(Cu+2H2PO4=CuH2(P04)2+2H)=7.4 K(Cu+2HPO4=CuH3(P04)2+H)=-2.71	1993CIc (12952)	469
At I=0, SIT extrapolation: K(Cu+H2PO4)=1.14, K(Cu+2H2PO4)=1.94, K(Cu+2H2PO4=CuH2(P04)2+2H)=7.4, K(Cu+HPO4+H2PO4=CuH2(P04)2+2H)=5.35										
Cu++	gl	KCl	25°C	0.10M	C	M		K(CuH3A+H2L)=2.0 K(CuH3A+HL)=6.45	1992MMb (12953)	470

$K(\text{CuH}_2\text{A}+\text{HL})=4.11$

$K(\text{CuHA}+\text{HL})=3.3$

$K(\text{CuA}+\text{HL})=2.8$, $K(\text{Cu}_2\text{A}+\text{HL})=4.5$

A=1,4,7,13,16,19-Hexaaza-10,22-dioxacyclotetracosane

Cu++ sol oth/un 25°C 0.0 M TI 1992ZJb (12954) 471

$K(\text{CuO}(\text{s})+\text{PO}_4=\text{Cu}(\text{OH})_2\text{PO}_4)=-4.64$

Method: solubility of CuO in Na₃PO₄ media at 19-262 C.

$K(\text{CuO}(\text{s})+\text{HPO}_4=\text{Cu}(\text{OH})_2\text{HPO}_4)=-5.29$, $K(\text{CuO}(\text{s})+\text{HPO}_4=\text{Cu}(\text{OH})_3\text{H}_2\text{PO}_4)=-4.86$

Cu++ gl KNO₃ 25°C 0.20M M M 1988SKd (12955) 472

$K(\text{Cu}(\text{dien})+\text{HL})=3.12$

$K(\text{HL}+\text{L})=6.97$

Cu++ nmr oth/un 25°C ? U M 1985MGa (12956) 473

$K(\text{Cu}(\text{trien})+\text{L})=1.91$

Cu++ gl NaNO₃ 25°C 0.10M C 1981BKb (12957) 474

$K(\text{Cu}+\text{HPO}_4)=3.2$

Cu++ vlt NaClO₄ 25°C 0.50M U 1973NMb (12958) 475

$K(\text{Cu}+\text{HL})=4.7$

$K(\text{Cu}+2\text{HL})=6.6$

$K(\text{Cu}+3\text{HL})=7.5$

Cu++ gl NaClO₄ 25°C 0.10M U K₁=2.41 B₂=4.28 1973RMa (12959) 476

Cu++ gl KNO₃ 37°C 0.15M U 1970CHc (12960) 477

$K(\text{Cu}+\text{H}_2\text{L})=1.2$

$K(\text{Cu}+\text{HL})=3.3$

$K(\text{CuH}_2\text{L}+\text{HL})=3.7$

$K(2\text{CuHL}=(\text{CuHL})_2)=2.5$

Cu++ sp oth/un 20°C 3.0M U T 1968BTc (12961) 478

$K(\text{Cu}+2\text{H}_2\text{L})=2.70$

Medium: Na₂SO₄. Using Cu/Hg electrode, 36 C: $K=2.64$

Cu++ EMF oth/un RT 0.50M C 1968BUe (12962) 479

$K(\text{Cu}+2\text{H}_2\text{PO}_4)=2.64$

Method: Cu/Hg electrode in 0.5 M K₂SO₄ medium.

Cu++ kin none 25°C 0.0 U 1968KYa (12963) 480

$K(\text{Cu}+\text{H}_2\text{L})=1.7$

Cu++ gl NaClO₄ 25°C 0.10M U I M 1967SBc (12964) 481

$K(\text{Cu}+\text{HL})=3.2$

In 10% dioxan, 0.1 M NaClO₄: $K(\text{Ni HL})=3.4$, $K(\text{Cu}+\text{bpy}+\text{HL})=3.8$

Cu++ gl oth/un 20°C dil U 1961CAa (12965) 482

$K_{\text{so}}(\text{Cu}_3\text{L}_2)=-36.9$

Cu++ ISE oth/un 25°C var U 1945MEa (12966) 483
K(Cu+2H2L)=1.49

PW11039----- H7L (2467)
alpha-Heteromonophospho-polytungstate;

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

Cu++ gl NaNO3 25°C 1.00M U K1=6.03 1984C0a (13393) 484

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

Cu++ gl KNO3 35°C 0.20M C K1=8.69 B2=13.72 1994YVa (13478) 485
B(CuHL)=13.58

Cu++ gl R4N.X 25°C 0.50M C K1=3.48 B2= 4.65 1979DHa (13479) 486
K(Cu+HL=CuL+H)=-4.98
K(Cu+2HL=CuL2+2H)=-12.26
K(CuL+HL=CuL2+H)=-7.3

Medium: 0.50 M Me4NCl. Kso(Cu2P207.4H2O)=-16.2.

Cu++ gl R4N.X 25°C 0.20M U K1=7.91 B2=12.12 1979MFa (13480) 487
K(Cu+HP207)=4.71
K(CuHP207+HP207)=3.82

Medium: 0.20 M Me4NBr.

Cu++ kin R4N.X 30°C 0.10M U K1=9.85 1978KHa (13481) 488
Medium: 0.10 M NH4NO3

Cu++ ix R4N.X 21°C 0.80M U M 1974WYa (13482) 489
K(Cu(NH3)4+L)=2.84

Cu++ ISE NaClO4 25°C 0.10M U K1=5.56 B2=9.46 1973RMa (13483) 490

Cu++ gl NaClO4 25°C 1.0M U K1=7.6 B2=12.45 1968BCb (13484) 491
B(CuHL)=11.81
B(CuHL2)=17.3
B(CuH2L)=14.71
B(CuH2L2)=22.0

Cu/Hg electrode also used. B(CuH3L2)=25.7, B(CuH4L2)=28.4, B(CuH5L2)=30.1

Cu++ gl NaNO3 25°C 0.10M U K1=7.3 1963JWa (13485) 492
K(CuL+H)=5.4

Cu++ EMF oth/un 25°C 1.00M U K1=9.07 B2=13.65 1963SSf (13486) 493
K(CuHL+H)=3.31

K(CuL+H)=5.23
 K(H3L2+H)=3.21
 K(CuH2L2+H)=4.40

Medium: Me4NNO3, Cu/Hg electrode. K(CuHL2+H)=5.78, K(CuL2+H)=6.76

 Cu++ sol oth/un 25°C var U K1=8.17 B2=8.99 1958PTa (13487) 494
 Medium: Na4L

 Cu++ ISE oth/un 25°C var U B2=10.1 1958VRb (13488) 495

 Cu++ ISE oth/un 25°C ? U B2=10.89 1956ULa (13489) 496

 Cu++ sol oth/un 25°C var U K1=6.70 B2=9.00 1956YVa (13490) 497
 Kso(Cu2L)=-15.08

 Cu++ cal oth/un 25°C var U H 1956YVb (13491) 498
 DH(B2)=-2.8 kJ mol-1, DS=163 J K-1 mol-1

 Cu++ ISE oth/un 25°C var U K1=5.20 B2=10.30 1954ULa (13492) 499

 Cu++ ISE oth/un 25°C var U B2=11.87 1953LUa (13493) 500

 Cu++ sp KNO3 25°C 1.00M U I K2=3.77 1953WAa (13494) 501
 By glass electrode K2=3.85. In 1 M NaNO3, by solubility, B2=12.65

 Cu++ sp R4N.X 25°C 1.00M U M 1953WMa (13495) 502
 B(CuL(NH3)2)=14.22

Medium: NH4NO3

 Cu++ ISE oth/un 18°C var U B2=9.51 1951STa (13496) 503

 Cu++ vlt oth/un 25°C var U 1950LOa (13497) 504
 K(Cu+HL)=6.4
 K(CuHL+HL)=3.6

 Cu++ sol oth/un 25°C var U 1950LOa (13498) 505
 B(CuL(OH))=15.7

 Cu++ vlt KCl 20°C 0.80M U K1=13.2 1949ERa (13499) 506

P2W17O61----- Polytungstate (2102)
 alpha-Heterodiphospho-polytungstate (usually alpha1 isomer)

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

 Cu++ gl NaNO3 25°C 1.00M U K1=8.95 1984COa (13701) 507
 K1=6.74 (alpha2 isomer)

P3O10----- H5L CAS 10380-08-2 (1001)
 Tripolyphosphate; from (HO)2PO.O.PO(OH).O.PO(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KNO3	35°C	0.20M	C		K1=7.94 B2=10.98 B(CuHL)=12.63	1994YVa (13767)	508
Cu++	gl	KNO3	25°C	0.10M	U	HM	K1=8.09 B2=10.37 B(CuHL)=13.51 B(CuH2L)=16.75	1989ACa (13768)	509
Ternary data with spermine.									
Cu++	kin	oth/un	30°C	0.10M	U		K1=9.93	1978KHa (13769)	510
Cu++	ix	R4N.X	21°C	0.80M	U	M	K(Cu(NH3)4+L)=2.72	1974WYa (13770)	511
Cu++	gl	KNO3	25°C	0.10M	U	T H	K1=8.20 K(Cu+HL)=5.20	1973TRa (13771)	512
At 2 C: K1=8.10, K(Cu+HL)=5.03; 35 C: K1=8.85, K=5.31 DH(K1)=-34.3, DH(Cu+HL)=-11.7 kJ mol ⁻¹ (25C)									
Cu++	gl	KNO3	45°C	0.10M	U		K1=7.42 B2=9.99 K(Cu+HL)=4.88 K(CuL+HL)=3.2 K(CuL2+H)=8.76	1971TRa (13772)	513
Cu++	EMF	oth/un	0°C	?	U		B2=11.71	1969GMd (13773)	514
Cu++	gl	R4N.X	20°C	0.10M	U	H	K1=9.3 K(Cu+HL)=6.1 K(CuL+H)=5.6	1965ANa (13774)	515
Medium: Me4NNO3. By calorimetry: DH(K1)=20.5 kJ mol ⁻¹ , DS=238 J K ⁻¹ mol ⁻¹									
Cu++	gl	KCl	25°C	0.10M	U		K1=8.73 K(Cu+HL)=4.34 K(CuL+H)=3.67	1964EMb (13775)	516
Cu++	gl	NaNO3	25°C	0.10M	U		K1=7.3 K(CuL+H)=5.2	1963JWa (13776)	517
Cu++	gl	R4N.X	25°C	1.00M	U		K1=8.70 B2=10.50 B(CuL(OH))=12.67 K(CuHL+H)=3.33 K(CuL+H)=5.72 K(CuH3L2+H)=3.60	1962SLa (13777)	518
Medium: Me4NNH03, also by Cu/Hg electrode. K(CuH2L2+H)=-4.88, KCuHL2+H)=6.59									
Cu++	oth	oth/un	?	0.25M	U		K1eff=5.66 pH 5	1956K0a (13778)	519
Method: chemical analysis. K1eff=5.71 (pH 5.5), 6.06 (pH 6)									

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	ix	NaClO4	25°C	0.30M	U			K1=1.8 B2=3.6	1990Kwa (13928)	520
Cu++	ISE	NaClO4	25°C	0.40M	C			K1=1.6	1986Kuc (13929)	521
Cu++	vlt	R4N.X	25°C	1.00M	U			K1=1.58 B2=2.18	1969Wka (13930)	522
Medium: Me4NNO3										
Cu++	EMF	R4N.X	25°C	0.6?M	U			K1=1.44	1958INa (13931)	523
Medium: Me4NNO3. Method: Cu/Hg electrode										

P4012---- H4L CAS 13598-74-8 (234)
Cyclotetrametaphosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	ix	NaClO4	25°C	0.30M	U			K1=2.8	1990Kwa (13979)	524
Data also by spectrophotometry. B1=2.66 at 230 nm, 2.59 at 240, 2.57 at 250.										
Cu++	ISE	NaClO4	25°C	0.30M	C			K1=2.7	1986Kuc (13980)	525
Cu++	vlt	R4N.X	25°C	1.00M	U			K1=3.04 B2=4.28	1969Wka (13981)	526
Medium: Me4NNO3										
Cu++	EMF	R4N.X	30°C	1.00M	U			K1=3.18 B2=4.64	1955GGa (13982)	527
Medium: Me4NNO3, Cu/Hg electrode										

P4013----- H6L Tetrphosphate (1102)
Tetrphosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	kin	oth/un	30°C	0.10M	U			K1=9.12	1978KHa (14030)	528
Cu++	ix	R4N.X	21°C	0.80M	U	M			1974WYa (14031)	529
K(Cu(NH3)4+L)=2.48										
Cu++	ix	oth/un	21°C	1.00M	U				1974WYa (14032)	530
K(Cu(NH3)4+L=Cu(NH3)3L)=2.48										
Medium: Me4NNO3										
Cu++	ISE	R4N.X	25°C	1.0M	U			K1=9.44 B2=10.60	1966WMa (14033)	531
K(CuL+OH)=3.86										
K(CuHL+H)=3.45										
K(CuL+H)=5.56										

K(CuH3L2+H)=3.55

Cu/Hg electrode. Medium: Me4NNO3. K(CuH2L2+H)=4.52, K(CuHL2+H)=7.28, K(CuL2+H)=8.40

P6012----- H6L CAS 25268-83-1 (6590)
Dodecaoxohexaphosphate(III); anion of (PO.OH)6

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

Cu++ sp KCl 25°C 0.50M U I K1=5.16 1990NTa (14053) 532
Data also at I=1.0 M KCl: B1=4.76; 1.5 4.50

P6018----- H6L (233)
Cyclohexametaphosphate;

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

Cu++ ix NaClO4 25°C 0.15M U K1=4.3 1990KWa (14064) 533
Data also by spectrophotometry. B1=4.19 at 230 nm, 4.09 at 240, 4.01 at 250.

Cu++ ISE NaClO4 25°C 0.10M C K1=4.5 B2=7.1 1986Kuc (14065) 534

P8024----- H8L (232)
Cyclooctametaphosphate;

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

Cu++ ix NaClO4 25°C 0.15M U K1=5.6 1990KWa (14076) 535
Data also by spectrophotometry. B1=5.44 at 230 nm, 5.27 at 240, 5.13 at 250.

Cu++ ISE NaClO4 25°C 0.10M C K1=5.6 B2=8.1 1986Kuc (14077) 536

S-- H2L Sulfide CAS 7783-06-4 (705)
Sulfide;

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

Cu++ vlt oth/un 25°C 0.72M C 1999AVb (14173) 537

K(Cu+HL)=12.9
K(Cu+2HL)=19.4

Method: determination of Cu by cathodic stripping voltammetry using oxine as competitive ligand. Medium: seawater, pH 8.0, S=35.

Cu++ vlt NaClO4 24°C 0.50M C I B2=19.5 1999CRb (14174) 538
Ligand is S5--. Method: polarography. Also data for 0.55 M NaCl.

Cu++ vlt oth/un 25°C 0.70M C I 1996LRb (14175) 539

K(Cu+HS+OH=CuS)=11.20
K(2Cu+3HS+3OH=Cu2S3)=38.29

Method: by voltammetry at Hg/HgS electrode

Cu++ sol oth/un 25°C var M M 1994THa (14176) 540

$$K(2,3,4)=-5.51$$

$$K(1,9,10)=-5.36$$

Constants at I=0. $K(2,3,4)=K(2\text{CuS}(s)+2\text{HS}+4\text{S}(\theta)=\text{Cu}_2\text{S}_3\text{S}_4+\text{H}_2\text{S})$;

$K(1,9,10)=K(\text{CuS}(s)+3\text{HS}+16.5\text{S}(\theta)=\text{Cu}_9\text{S}_{10}+1.5\text{H}_2\text{S})$; Covellite-solubilities

Cu++ vlt NaCl 25°C ? U 1994ZMa (14177) 541

$$K_{1\text{eff}}=7.0$$

$$K_{2\text{eff}}=6.0$$

Medium: sea water, pH=8. Method: cathodic stripping square wave voltammetry

Cu++ oth none ? 0 U 1990DKa (14178) 542

$$*K_s(\text{CuS}+\text{H}=\text{Cu}+\text{HS})=-22.3$$

$$*K_s(\text{CuS}+\text{HS}=\text{CuHS}_2)=-5.91$$

From recalculation of literature data.

Cu++ oth none 25°C 0.0 C 1989DYa (14179) 543

$$K_{\text{Cu}+\text{HS}=\text{CuS}+\text{H}}=12.5$$

$$*K_{\text{so}}(\text{CuS})=-22.5$$

$$K_{\text{so}}(\text{CuS})=-9.7$$

Calculated from literature data, based on $K(\text{H}+\text{S})=17.0$.

CuS is covellite.

Cu++ sol NaCl 25°C 0.20M M I 1989SHb (14180) 544

$$K(\text{CuS}(s)+\text{H}=\text{Cu}+\text{HS})=-21.39$$

Solubility study of covellite(CuS)

Cu++ oth none 25°C 0 U 1988LIa (14181) 545

$$K_{\text{so}}(\text{CuS})=-40.3$$

$$*K_{\text{so}}(\text{CuS})=-22.9$$

Derived from thermodynamic data and $K(\text{H}+\text{S}=\text{HS})=17.3$.

Cu++ oth none 25°C 0 U 1988SBc (14182) 546

$$K_{\text{so}}(\text{CuS, covellite})=-40.76$$

Method: recal. from literature data using $K(\text{H}+\text{S}=\text{HS})=18.57$ and $K(\text{H}+\text{HS})=6.99$

Cu++ sol NaCl 25°C 1.0M U I 1988SHa (14183) 547

$$K_s(\text{CuS}+3\text{HS})=-4.04$$

$$K_s(\text{CuS}+2\text{HS})=-4.97$$

$$K_s(\text{CuS}+\text{S}_5=\text{CuS}(\text{S}_5))=-2.631$$

Solubility study of covellite(CuS)

$K(2\text{CuS}(s)+\text{H}+3\text{S}_4+\text{S}_5=2\text{CuS}_4\text{S}_5+\text{HS})=6.46$; $K(2\text{CuS}(s)+\text{H}+\text{S}_4+3\text{S}_5=2\text{Cu}(\text{S}_5)_2+\text{HS})=6.01$

Cu++ dis oth/un 25°C 0.69M U 1985DYa (14184) 548

$$K(\text{Cu}+2\text{H}_2\text{S}=\text{CuHS}_2+3\text{H})=2.29$$

$$K(\text{Cu}+2\text{H}_2\text{S}=\text{Cu}(\text{HS})_2+2\text{H})=8.53$$

Cu++ oth none 50°C 0.0 M T 1969HEa (14185) 549

Estimated from literature data. $K_{\text{so}}=-33.91(50\text{ C})$; $-30.66(100\text{ C})$;

-28.21(150 C); -26.28(200 C); -24.73(250 c); -23.56(300 C)

Cu++ oth none 25°C 0.0 U 1964PCa (14186) 550
K(CuL(s)+2H=Cu+H2S(g))=-14.19

From thermodynamic data

Cu++ sol oth/un 25°C 0.0 U 1963CLa (14187) 551
Ks'=-1.30
Ks"=-6.44

Ks': 2CuS(covellite)+S3+3S4=2Cu(I)(S4)2+S. Ks": 2CuS(s)+3S4+S5=2CuS(I)4S5+S.
S3=S3--, S4=S4--, S5=S5--

Cu++ oth oth/un rt var U 1962MKa (14188) 552
Kso(CuL)=-38 to -41

Method: diffusion

Cu++ oth none 25°C 0.0 U T 1959CZa (14189) 553
Kso(CuL)=-35.40

From thermodynamic data. Kso=-30.18(100 C), -25.82(200 C), -20.98(400 C),
-18.34(600 C)

Cu++ oth none 25°C 0.0 U 1952GGc (14190) 554
Kso(CuL)=-35.10

From thermodynamic data

Cu++ oth none 25°C 0.0 U 1952LAb (14191) 555
Kso(CuL)=-36.10

From thermodynamic data

Cu++ oth none 25°C 0.0 U 1940KAa (14192) 556
Kso(CuL)=-37.49

From thermodynamic data

Cu++ oth none 25°C 0.0 U 1936RAa (14193) 557
Kso(CuL)=-37.46

From thermodynamic data

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

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

Cu++ sp non-aq 25°C 100% U 1993LJa (14516) 558
K(CuAB+L)=3.42

Medium: 1,2-dichloroethane. HA: acetylacetone; B: N,N,N',N'-tetramethyl-
ethylenediamine.

Cu++ dis NaCl04 25°C 1.00M C T K1=1.7 B2=2.8 1988MOB (14517) 559
B3=3.1

Cu++ sp alc/w 25°C 100% C IH K1=1.90 1987LYa (14518) 560

 Cu++ sp mixed 25°C 0.2M C K1=1.811 1987LYa (14519) 561
 Medium: Dioxan/H2O, NaNO3. At I=2.96, logK=2.04. pH =1.5-1.6

 Cu++ sp oth/un 25°C 0.02M U M K1=2.33 1984HDa (14520) 562
 K(CuA+L)=1.8
 A=1,4,8,11-Tetra-azacyclotetradecane (Cyclam). Data also for 1,5,9,13-tetra
 azapentadecane (K=1.88) and N,N',N'',N'''-tetramethylcyclam (K=2.2)

 Cu++ sp non-aq 0°C 100% U IH B4=15.15 1982CMb (14521) 563
 Medium: n-BuOH, 0.05 M Bu4NClO4, In EtOH B2=9, MeOH B2=8, n-PrOH B4=13.76,
 n-pentyl alcohol B4=16.23

 Cu++ oth NaClO4 25°C 1.0M C H K1=1.728 B2= 2.72 1976KKg (14522) 564
 Method: recalculation from published data. DH(K1)=-12.9 kJ mol⁻¹, DH(B2)=
 -25.9.

 Cu++ cal NaClO4 25°C 1.0M U H T K1=1.74 B2=2.74 1974KUa (14523) 565
 DH(K1)=-12.64 kJ mol⁻¹, DS=-9.2 kJ mol⁻¹, DH(K2)=-13.10, DS=-25

 Cu++ vlt non-aq 25°C 100% U B2=7.6 1974MAa (14524) 566
 Medium: acetonitrile, 0.1 M Et4NClO4

 Cu++ kin NaClO4 25°C 1.0M U T K1=1.76 1973HHb (14525) 567

 Cu++ cal alc/w 25°C 100% U H K(CuA2+L)=2.07 1972BFa (14526) 568
 Medium: MeOH. DH(K1)=7.45 kJ mol⁻¹, DS=64.4 J K⁻¹ mol⁻¹.
 For Cu(trien)2+L, K1=3.22, DH(K1)=2.93, DS=71.1

 Cu++ cal alc/w 25°C 100% U HM K(CuA2+L)=2.80 1972BFa (14527) 569
 Medium: MeOH. DH(K1)=2.38 kJ mol⁻¹, DS(K1)=61.5. A=methylethylenediamine

 Cu++ vlt non-aq 25°C 100% U T K1=3.2 B2=5.3 1972FDc (14528) 570
 Medium: DMSO, 0.1 M Et4NClO4

 Cu++ sp NaClO4 25°C 3.0M U K1=1.91 1970MMj (14529) 571
 medium:LiClO4

 Cu++ sp oth/un 30°C 0.0 U K1=2.39 1968DDa (14530) 572

 Cu++ cal oth/un 25°C 0.0 U H K1=2.33 1967NTa (14531) 573
 Medium: 0 corr. DH(K1)=-12.5 kJ mol⁻¹, DS=2.5 J K⁻¹ mol⁻¹

 Cu++ sp none 25°C 0.0 U K1=2.33 1962WIa (14532) 574

 Cu++ sp KNO3 25°C 0.50M U TI K1=1.74 B2=2.54 1959TTb (14533) 575

K3=0.15

K4=0.30

In 0.1 M KNO3: K1=1.93(20 C),1.90(25 C), K2=1.21(20 C),1.10(25 C). I=0.05:K1=2.01(20 C),1.99(25 C), K2=1.29(20 C),1.18(25 C). I=0 corr: K1=2.30, K2=1.35

Cu++ sp KNO3 25°C 0.50M U TI K1=1.74 B2=2.54 1959TTb (14534) 576

K3=0.15

K4=0.30

Data also for 0.1 M KNO3: K1=1.93(20 C),1.90(25 C), K2=1.21(20 C),1.10(25 C) and 0.05 M KNO3: K1=2.01(20 C),1.99(25 C), K2=1.29(20 C),1.18(25 C)

Cu++ sp none 25°C 0.0 U K1=2.30 B2=3.65 1959TTb (14535) 577

Cu++ sp oth/un 18°C 0.70M U I K1=1.92 1958YKa (14536) 578
Medium: Mg(NO3)2. At I=0 corr K1=2.56

Cu++ sp oth/un 18°C 0.70M U 19530Ga (14537) 579

B3=5.19

B4=6.52

Medium: Mg(NO3)2

S03-- H2L Sulfite CAS 7782-99-2 (801)

Sulfite;

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

Cu++ sp oth/un 21°C 0.40M C K1=4.26 1988CHd (15411) 580
Method: stopped -flow spectrophotometry. Media: NaNO3, NaCl, NaClO4 or Na2SO4. pH 3.6-4.4.

Cu++ sp oth/un 18°C 1.0M U M 1956Y0a (15412) 581

K(Cu(en)2+L)=1.40

K(Cu(Ala)2+L)=2.38

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

Sulfate;

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

Cu++ sp NaClO4 25°C 0.0 C TIH K1=2.32 2005MBa (15629) 582
Method: UV-visible spectrometry. Data for 0-0.08 m NaClO4 and 25-200 C. At 25 C, DH(K1)=6.38 kJ mol-1, DS(K1)=66.2 J K-1 mol-1.

Cu++ nmr oth/un 25°C 1.0M C I K1=3.74 2002ZLa (15630) 583

Method: nmr relaxation. Medium: Na2SO4. K1=3.21 (I=2.0), 3.08 (I=3.0). At I=0, K1=4.02. In MgSO4, K1=3.26 (I=3), 3.14 (I=3.5), 3.06 (I=4).

Cu++ con none 20°C 0.0 C I K1=2.40 2000TMa (15631) 584

Also data for 0.06-0.69 mole fraction MeOH/H2O.

Cu++ con none 25°C 0.0 C K1=2.27 1994NHa (15632) 585
Also data for 0.042 - 0.28 mole fraction EtOH/H2O.

Cu++ sp NaClO4 25°C 0.11M U I K1=1.299 1990GLa (15633) 586
In different EtOH, i=PrOH or dioxan/H2O mixtures at various I

Cu++ sp oth/un 100°C 3.6M C T K1=2.49 1990SKh (15634) 587
Medium: 1.2 m Na2SO4. At 150 C, K1=2.75; at 200 C, K1=3.03.

Cu++ sp oth/un 50°C 0.0 C T K1=2.46 1990SMa (15635) 588
Medium: 0-0.5 m Na2SO4. At 100 C, K1=2.92; at 200 C, K1=4.04.

Cu++ sp none 25°C 0.0 C K1=2.19 1990WAa (15636) 589

Cu++ con none 25°C 0.0 C K1=2.35 1989MBb (15637) 590

Cu++ con none 25°C 0.0 C I K1=2.20 1986SDa (15638) 591
Kout(CuSO4)=2.20
Value derived from data for 0.001-0.05 self medium.

Cu++ sp NaClO4 25°C 0.00 M I K1=2.08 1985LYa (15639) 592

Cu++ con none 25°C 0.0 C K1=2.31 1985SGd (15640) 593

Cu++ EMF none 25°C 0.0 C T K1=3.00 1984PGb (15641) 594
Method: Pt/quinhydrone electroode. Data for 5-35 C.
DH(K1)=9.6 kJ mol⁻¹, DS(K1)=89 J K⁻¹ mol⁻¹. At 15 C, K1=2.94

Cu++ con none 25°C 0.0 C T H K1=2.418 1983ADc (15642) 595
Data for 10-50 C. At 10 C, K1=2.426; at 50 C, K1=2.409.

Cu++ sp none 25°C 0.0 C T H K1=2.32 1982DKb (15643) 596
Data for 10 and 40 C. DH(K1)=7.7 kJ mol⁻¹, DS(K1)=67.8 J K⁻¹ mol⁻¹.

Cu++ cal KNO3 35°C 2.0M U H 1981ARc (15644) 597
DH(K1)=-+2.1 kJ mol⁻¹, DS=28 K J mol⁻¹

Cu++ oth none 25°C 0.0 C K1=2.29 1981YYa (15645) 598
Calculated from published UV-spectrometry data.

Cu++ cal oth/un 25°C 2.00M U H K1=0.64 1979GCa (15646) 599
DH1=6.65 kJ mol⁻¹

Cu++ sp NaClO4 25°C 5.00M U H K1out=0.63 1977AHa (15647) 600
DH=0 kJ mol⁻¹, DS=12 J K⁻¹ mol⁻¹

Cu++ sp oth/un 25°C 2.0M U IH K1=0.60 1977KFa (15648) 601
In 2.0 M LiClO4;

Cu++ sp NaClO4 25°C 2.0M C IH K1=4.0 1977KFb (15649) 602
 Medium: 2.0 M LiClO4. DH(K1)=1.59 kJ mol⁻¹, DS(K1)=8.4 J K⁻¹ mol⁻¹.
 In 4.0 M LiClO4, K1=3.3.

Cu++ con none 25°C 0.0 C T K1=2.80 1977STd (15650) 603
 At 15 C, K1=2.73; at 40 C, K1=2.90.

Cu++ con none 25°C 0.0 U K1=2.67 1975TAa (15651) 604

Cu++ sp none 25°C 0.0 C K1=2.18 1975YYa (15652) 605

Cu++ cal NaClO4 25°C 3.0M U H K1=0.66 1974BRa (15653) 606
 Medium:LiClO4. DH(K1)=4.8 kJ mol⁻¹, DS(K1)=29 J K⁻¹ mol⁻¹

Cu++ cal none 25°C 0.0 U H 1973HPa (15654) 607
 DH(K1)=10.2 kJ mol⁻¹

Cu++ cal none 25°C 0.0 U H 1973POa (15655) 608
 DH(K1)=9.2 to 9.6 kJ mol⁻¹

Cu++ ISE NaClO4 25°C 0.10M U K1=2.22 1973RMa (15656) 609

Cu++ sol oth/un rt dil U 1972LRa (15657) 610
 Ks(Cu+1.5(OH)+0.25L)=-17.19
 Brochantite (Cu(OH)1.5L0.25) formed

Cu++ oth none 25°C 0.0 C H K1=2.398 B2= 1.70 1972PIa (15658) 611
 Calculated from published osmotic coefficients and freezing point (0 C)
 data. From heats of dilution, DH(K1)=-6.69 kJ mol⁻¹, DH(K2)=0.

Cu++ con oth/un 25°C 0.0 U K1=2.40 1971HPa (15659) 612

Cu++ sp NaClO4 25°C 0.0 U I K1=2.25 1971KVa (15660) 613
 K1=0.81(I=1); 0.73(I=3); 0.90(I=5)

Cu++ sp none 25°C 0.0 U K1=2.25 1971MKf (15661) 614

Cu++ cal NaClO4 25°C 3.0M C H K1=0.67 1970BRe (15662) 615
 Medium: LiClO4. DH(K1)=5.0 kJ mol⁻¹, DS(K1)=29 J K⁻¹ mol⁻¹.

Cu++ oth oth/un 25°C 0.0 U K1=2.28 1970HPd (15663) 616
 Method:ultrasonic absorption

Cu++ cal none 25°C 0.0 C H 1970LAe (15664) 617
 DH(K1)=7.2 kJ mol⁻¹, DS(K1)=69.5 J K⁻¹ mol⁻¹.
 Method: heat of dilution measurements.

Cu++ sp NaClO4 25°C 3.0M U K1=0.70 1970MMj (15665) 618
 Medium:LiClO4

Cu++	sp	NaClO4	20°C	1.0M	U		K1=0.64	1970SWa (15666)	619	

Cu++	cal	NaClO4	25°C	2.0M	U	H	K1=0.59	1969BGa (15667)	620	
DH(K1)=7.3 kJ mol ⁻¹ , DS(K1)=35.5 J K ⁻¹ mol ⁻¹										

Cu++	cal	none	25°C	0.0	U	H	K1=2.26	1969IEa (15668)	621	
DH(K1)=5.1 kJ mol ⁻¹ , DS(K1)=61.0 J K ⁻¹ mol ⁻¹										

Cu++	con	mixed	25°C	20%	U	I	K1=2.61	1969SMd (15669)	622	
Medium: THF. 0% THF: K1=2.12, 50%: 3.21										

Cu++	nmr	oth/un	20°C	5.0M	U		K1=-0.01	1969Vsa (15670)	623	
Method:N.M.R.										

Cu++	oth	oth/un	25°C	0.0	U		K1=2.32	1968HPd (15671)	624	
K(CuH2OL=CuL+H2O)=-0.6										
Method:ultrasonic absorption. Medium:0 corr. By spec: K1=2.35										

Cu++	sp	NaClO4	25°C	0.10M	C	I	K1=2.352	1968HPd (15672)	625	
Derived from data for I=0.062-0.103 M NaClO4.										

Cu++	sp	NaClO4	25°C	3.0M	U		K1=0.70	1968MMF (15673)	626	
K1in=-0.5										
K1out=0.67										
Medium: LiClO4										

Cu++	ISE	oth/un	35°C	0.0	U		K1=2.17	1968PRd (15674)	627	

Cu++	con	oth/un	25°C	0.0	U		K1=2.28	1968YMa (15675)	628	

Cu++	con	none	25°C	0.0	U	M		1968YMa (15676)	629	
K(Cu(en)2+L)=2.27										

Cu++	oth	non-aq	260°C	100%	U		K1=0.43	1966Iwa (15677)	630	
Method:freezing point. Medium: molten LiNO3. m units										

Cu++	sp	NaClO4	25°C	.091M	U	I	K1=1.38	1965MAe (15678)	631	
K1=1.64(I=0.041), 2.3(I=0 corr)										

Cu++	oth	oth/un	25°C	0.0	U		K1=1.93	1965POa (15679)	632	
K(Cu(H2O)2L=Cu(H2O)L)=-0.18										

Cu++	vlt	NaClO4	25°C	1.0M	U	M	K1=<0.5	B2=1.5	1965TSb (15680)	633
B(CuAL)=1.6										
B(CuAL2)=1.85										
B(CuA)=1.30										
B(CuA2)=2.04										
HA=CH3CO2H										

Cu++	con	none	25°C	0.0	U	I	K1=2.25	1965YKa (15681)	634	

Also dioxan/H2O mixtures. $K_1=3.17(25\%), 3.04(20\%), 2.75(15\%), 2.62(10\%)$
 $2.39(5\%)$

Cu++	con	oth/un	25°C	0.0	U	$K_1=2.32$	1962AYa (15682)	635
Cu++	con	oth/un	25°C	0.0	U	$K_1=2.37$	1961PFa (15683)	636
Cu++	gl	oth/un	25°C	0.0	U T		1960BBa (15684)	637
$K_{so}(\text{Cu}(\text{OH})1.5\text{L}0.25)=-17.15$ $K_{so}=-16.6(50\text{ C}), -15.15(75\text{ C}). K(4\text{Cu}(\text{OH})1.5\text{L}0.25(\text{s})+2\text{OH}=4\text{CuO}(\text{s})+\text{L}+4\text{H}_2\text{O})=11.6$ $(25\text{ C}), 10.0(50\text{ C}), 9.9(65\text{ C}), 9.3(75\text{ C})$								
Cu++	oth	KN03	-3°C	sat	U	$K_1=0.72$ B2=1.50	1959RRc (15685)	638
Method: freezing point								
Cu++	gl	oth/un	25°C	0.0	U		1958BBa (15686)	639
$K_{so}(\text{Cu}(\text{OH})1.5\text{L}0.25)=-17.15$								
Cu++	oth	KN03	0°C	sat	U I	$K_1=0.72$	1958KEa (15687)	640
Method: freezing point. $K_1=1.29(\text{KClO}_3\text{ sat}), 1.69(\text{KClO}_4\text{ sat})$								
Cu++	sol	oth/un	25°C	0.0	U		1958SIa (15688)	641
$K_{so}(\text{Cu}_3(\text{OH})4\text{L})=-47.2$								
$K_{so}(\text{Cu}(\text{OH})1.5\text{L}0.25)=-17.20$								
$K_{so}(\text{Cu}(\text{OH})1.5\text{L}0.25(\text{H}_2\text{O}))=-16.7$								
Cu++	sp	oth/un	25°C	0.0	U	$K_1=2.2$	1957DOa (15689)	642
$K_1=2.10$ to 2.46 depending on interionic distance								
Cu++	sp	oth/un	25°C	0.0	U	$K_1=2.33$	1956BDa (15690)	643
Cu++	oth	oth/un	0°C	0.0	U	$K_1=2.33$	1956KEb (15691)	644
Method: freezing point								
Cu++	oth	oth/un	0°C	0.0	U	$K_1=2.3$	1955BPb (15692)	645
Method: freezing point. $K_1=2.18$ to 2.48								
Cu++	sol	oth/un	75°C	0.0	U		1954DOa (15693)	646
$K_{so}(\text{Cu}(\text{OH})1.5\text{L}0.25)=-17.38$								
Cu++	sp	oth/un	?	0.0	U	$K_1=2.10$	1954NKb (15694)	647
Cu++	sp	NaClO4	25°C	3.0M	U	$K_1=0.38$	1953NAb (15695)	648
Cu++	sol	NaClO4	20°C	1.0M	U	$K_1<1.04$ B2=0.5	1951NLb (15696)	649
B3 < 2.18								
$K_{so}(\text{Cu}(\text{OH})1.5\text{L}0.25)=-16.86$								
Cu++	EMF	NaClO4	20°C	1.0M	U M	$K_1=0.95$	1950FRa (15697)	650
B3=1.90								

B(CuLA)=2.28

Method: quinhydrone electrode. HA=ethanoic acid

Cu++ gl oth/un 25°C 0.0 U K1=2.15 1950NAa (15698) 651

Cu++ sp oth/un 25°C 0.04M C K1=1.466 1949NAa (15699) 652
Medium: Li2SO4. Data for I=0.04-6.76 M. At I=0, K1=2.099;
at I=0.48 M, K1=0.792.

Cu++ sp NaClO4 25°C 0.21M C I K1=1.084 1949NAb (15700) 653
Data for I=0.209-3.20 M NaClO4. At I=0, K1=2.099. Also data for 0.705-2.65
M LiClO4 and in Na2SO4 (I=0.384-2.924) and K2SO4 (I=0.218-1.58 M).

Cu++ gl oth/un 25°C 0.0 U K1=2.10 1949NTa (15701) 654
Kso(Cu(OH)1.5L0.25)=17.115

Cu++ EMF NaClO4 20°C 1.0M U K1=1.03 B2=1.13 1948FRa (15702) 655
K3=1.17

Method: Cu/Hg electrode. By spec. K1 > 0.72

Cu++ con oth/un 18°C 0.0 U K1=2.30 1938DAa (15703) 656

Cu++ con oth/un 18°C 0.0 U K1=2.37 19380Ga (15704) 657

Cu++ con oth/un 18°C 0.0 U K1=2.35 1927DAb (15705) 658

S2O3-- H2L Thiosulfate CAS 73686-28-7 (177)
Thiosulfate;

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

Cu++ kin NaClO4 25°C 0.20M U B2=4.56 1992REa (16698) 659

Cu++ sp NaClO4 25°C 3.0M U H 1971BAd (16699) 660

Kin(Cu(en)2+L)=0.1
Kout(Cu(en)2+L)=0.23
K(Cu(en)2+L)=0.47

DH(Kin)=6.3 kJ mol-1, DS=23 J K-1 mol-1; DH(Kout)=3.3, DS=15

Cu++ oth oth/un 25°C 0.0 U 1970HPc (16700) 661
K(Cu(en)2+L)=2.28

Method: ultrasonic absorption

Cu++ sp oth/un 25°C 0.0 U 1968HPd (16701) 662

K(Cu(en)2+L)=2.34
Kout(Cu+L=Cu(H2O)L)=2.22
K(Cu(H2O)L=CuL)=-0.6

By ultrasound absorption, K1=2.32

Cu++ sp oth/un 25°C 0.0 U M 1967MAe (16702) 663

K(Cu(en)2+L)=2.2 to 2.5

Cu++ sp oth/un 18°C 1.0M U M 1956Y0a (16703) 664
K(Cu(en)2+L)=2.28

Cu++ ISE oth/un 25°C var U B2=12.29 1953LUa (16704) 665

S2O8-- H2L Peroxodisulfate (7860)
Peroxodisulfate;

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

Cu++ cal KNO3 35°C 2.0M U H K1=1.38 1981ARc (16919) 666
DH(K1)=-+1.2 kJ mol-1, DS=31 K J mol-1

Se-- H2L Selenide (6335)
Selenide;

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

Cu++ oth none 25°C 0.0 U 1964BUe (16931) 667
Kso=-48.1

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

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

Cu++ sol oth/un 25°C dil C 1993SPb (17015) 668
Kso(CuSeO3)=-10.82
Method: [Cu] determined by ion selective electrode. Medium: dil HNO3.

Cu++ con oth/un 18°C dil U 1968RVa (17016) 669
Kso=-7.49

Cu++ sol oth/un 20°C 0.0 U 1965LAb (17017) 670
Kso=-7.78

Cu++ sol oth/un 20°C var U 1956CHe (17018) 671
Kso(CuL)=-7.68

SiW11O39----- H8L (2464)
alpha-Heterosilicon-polytungstate;

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

Cu++ gl NaNO3 25°C 1.00M U K1=8.06 1984C0a (17227) 672
K(beta1 isomer)=7.47
K(beta2 isomer)=7.31
K(beta3 isomer)=7.73

CH2O2 HL Formic acid CAS 64-18-6 (37)
 Methanoic acid; H.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	diox/w	25°C	70%	M			K1=3.32	1990BSb (17518)	673
Medium: 70% v/v DMSO/H2O, 0.1 M NaNO3										
Cu++	oth	NaClO4	25°C	2.0M	U			K1=1.57	1990FTa (17519)	674
Methods: averaged results from potentiometric, polarographic and spectrophotometric measurements.										
Cu++	gl	diox/w	25°C	30%	C	I		K1=2.20	1989LCb (17520)	675
Medium: 30% dioxan/H2O, 0.1 M NaNO3. In 0%, K1=1.65; 10%, K1=1.79; 50%, K1=2.79										
Cu++	gl	NaNO3	25°C	0.10M	C	I	M	K1=1.58 K(Cu(phen)+L)=1.55	1988LTc (17521)	676
Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures										
Cu++	gl	KNO3	25°C	0.20M	M		M	K1=1.64 K(Cu(dien)+L)=1.53	1988SKd (17522)	677
K(H+L)=3.67										
Cu++	gl	alc/w	25°C	50%	C	I	M	K1=2.24 K(Cu(phen)+L)=2.31	1985BSd (17523)	678
Medium: 50% v/v EtOH/H2O. In 50% dioxan: K1=2.79, K(Cu(phen)+L)=2.82										
Cu++	gl	KNO3	25°C	0.10M	C	I	M	K1=1.65 K(Cu(phen)+L)=1.61	1985SMf (17524)	679
Also data in 30, 50, 60, 70, and 90% (v/v) Ethanol/water and 10, 30, 50, 60, 70, 80, and 90% (v/v) dioxane/water.										
Cu++	gl	KNO3	25°C	0.10M	C		M	K1=1.65 K(Cu(phen)+L)=1.61	1984DHa (17525)	680
Cu++	sp	NaClO4	25°C	2.0M	C			K1=1.59 B2= 2.48 B3=2.92 B4=3.58	1976GFa (17526)	681
Cu++	sp	KNO3	RT	3.0M	C			K1=1.70 B2= 2.01 B3=2.28	1975ADa (17527)	682
Cu++	vlt	oth/un	25°C	1.00M	U			K1=1.11 B2=1.51 B3=1.85	1973TRc (17528)	683
Cu++	gl	oth/un	25°C	1.00M	U			K1=1.08 B2=1.47 B3=1.97	1973TRc (17529)	684

Cu++ gl NaClO4 25°C 5.00M U K1=1.83 B2=2.60 1971BAb (17530) 685
 B3=3.00
 B4=3.30
 K(Cu+L+HL)=2.40

 Cu++ vlt NaClO4 25°C 5.00M U K1=1.79 B2=2.70 1971BAb (17531) 686
 B3=3.18
 B4=3.57

 Cu++ gl NaNO3 30°C 0.40M U K1=1.38 1970BTa (17532) 687

 Cu++ sp NaClO4 25°C 2.00M U K1=1.65 B2=2.55 1970GFa (17533) 688
 B3=3.32

 Cu++ vlt NaClO4 25°C 2.00M U K1=1.40 B2=2.30 1968FPa (17534) 689
 B3=2.18
 B4=1.90

 Cu++ gl diox/w 25°C 50% U M K1=2.80 1968GPd (17535) 690
 K(Cu(bpy)+L)=2.84

Medium: 0.1(NaClO4), 50% dioxan

 Cu++ sp NaClO4 30°C 0.10M U K1=2.04 1968RSc (17536) 691

 Cu++ sp oth/un 28°C 0.50M U K1=2.0 1965DSa (17537) 692

 Cu++ gl NaClO4 25°C 3.0M U K1=1.53 B2=2.42 1964PCa (17538) 693
 B3=2.68

 Cu++ sp oth/un 25°C ? U K1=2.02 1957BDb (17539) 694

 Cu++ vlt NaClO4 25°C 2.0M U K1=1.57 B2=2.22 1957HBa (17540) 695
 B3=2.05
 B4=2.45

 Cu++ sol none 25°C 0.0 U K1=1.98 1951LWa (17541) 696

CH2O3Cl3P H2L CAS 5994-41-2 (1970)

Trichloromethylphosphonic acid; Cl3C.PO3H2

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

 Cu++ gl KNO3 25°C 0.10M U K1=2.17 1979WNa (17665) 697

CH3NO HL Formaldoxime CAS 62479-75-2 (4206)

Formaldoxime; CH2:N.OH

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

 Cu++ oth oth/un 20°C 0.10M U K1=7.5 1971BJa (17667) 698

Paper electrophoresis, acetate-veronal buffer

CH3O3Cl2P H2L CAS 13113-88-7 (1972)

Dichloromethylphosphonic acid; Cl2CH.PO3H2

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

Cu++ gl KNO3 25°C 0.10M U K1=2.49 1979WNa (17687) 699
K(Cu+L=Cu(OH)L+H)=-4.7

CH3O5P H3L Phosphonoformic CAS 4428-95-9 (5654)

Phosphonoformic Acid; O:P(OH)2.CO2H

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

Cu++ gl NaNO3 25°C 0.10M C M K1=7.78 1994SCa (17691) 700

K(Cu+HL)=3.69

K(CuL+H)=3.48

K(Cu(bpy)+L)=7.94

K(Cu(bpy)+HL)=3.97

K(Cu(bpy)L+H)=3.60; K(Cu(phen)+L)=7.99, K(Cu(phen)+HL)=4.02,

K(Cu(phen)L+H)=3.60

CH4N2O L Urea CAS 57-13-6 (2018)

Carbamide, Urea; (H2N)2CO

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

Cu++ EMF NaClO4 25°C 2.0M U I K1=-0.49 1965SKb (17709) 701
K1=-0.55(I=0.5), -0.72(I=0.2)

Cu++ EMF oth/un ? 0.20M U I K1=-0.7 1965SKd (17710) 702
K1=-0.55(I=0.5), -0.49(I=2)

CH4N2S L Thiourea CAS 62-56-6 (51)

Thiocarbamide, Thiourea; (H2N)2CS

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

Cu++ sp NaClO4 25°C 0.46M U K1=0.362 1996DSa (17730) 703

Cu++ vlt NaClO4 30°C 1.00M U T H K1=1.45 B2=2.54 1980BVa (17731) 704

B3=2.65

B4=3.76

DH(K1)=-12.0 kJ mol⁻¹, DS=-11.7 J K⁻¹ mol⁻¹; DH(B2)=-30.6, DS=-52.1,

DH(B3)=-23.9, DS=-28; DH(B4)=-43.1, DS=-67

Cu++ gl NaClO4 25°C 1.00M U K1=10.2 B2=13.0 1980KPa (17732) 705

B3=15.9

B4=18.1

Cu++ ISE mixed 25°C 82% U K1=8.79 B2=11.28 1979MTc (17733) 706
B3=13.73
B4=15.70

Medium: 82% formamide

Cu++ kin oth/un 25°C 0.20M U 1977ASa (17734) 707
K(CuA+L)=0.34

Medium: 0.2M Li-p-toluenesulfonate. A=5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane

Cu++ vlt oth/un ? 0.10M U 1967RSb (17735) 708
B4=14.67

CH4O L Methyl alcohol CAS 67-56-1 (597)
Methanol; CH3.OH

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

Cu++ ISE alc/w 25°C 100% C 1988LMa (17868) 709
K(Cu+H-1L)=10
K(Cu+2H-1L=CuH-2L2)=ca 18

Cu++ sol oth/un 25°C ? U M 1968GGb (17869) 710
K(CuCl2+L)=1.46
K(CuCl2+2L)=2.44

CH4O3BrP H2L CAS 7582-40-3 (1974)
Bromomethylphosphonic acid; Br.CH2.PO3H2

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

Cu++ gl KNO3 25°C 0.10M U K1=2.95 1979WNa (17914) 711
K(Cu+L=Cu(OH)L+H)=-3.91

CH4O3ClP H2L CAS 2565-58-4 (1973)
Chloromethylphosphonic acid; Cl.CH2.PO3H2

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

Cu++ gl KNO3 25°C 0.10M U K1=2.89 1979WNa (17919) 712
K(Cu+L=Cu(OH)L+H)=-3.73

Cu++ EMF NaNO3 25°C 0.10M U K1=2.90 1970TNa (17920) 713

CH4O3IP H2L CAS 13298-02-7 (1976)
Iodomethylphosphonic acid; I.CH2.PO3H2

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

Cu++ gl KNO3 25°C 0.10M U K1=3.04 1979WNa (17932) 714
K(Cu+L=Cu(OH)L+H)=-3.72

CH5N L Methylamine CAS 74-89-5 (155)

Methylamine; CH3.NH2

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

Cu++ gl NaNO3 25°C 0.10M M M K1=6.82 B2=11.56 2002SKa (17988) 715
B(CuAL)=15.92
B(CuAL2)=20.57

A is picolylamine

Cu++ sp NaClO4 25°C 0.20M U 1991CCb (17989) 716
K(CuA+L=CuAL)=2.60

A is rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane

Cu++ sp NaClO4 23°C 1.00M U 1980AIa (17990) 717
K5=-0.8
K(CuL4+OH)=1.2

Cu++ sol R4N.X 25°C 2.00M U K1=4.11 B2=7.51 1976IBa (17991) 718
K3=2.70
K4=1.87

Cu++ vlt KNO3 30°C 2.00M U B2=16.24 1971SSe (17992) 719

Cu++ vlt KNO3 30°C 2.00M U 1971SSe (17993) 720
B(CuL2(OH)2)=15.83

Cu++ gl R4N.X 25°C 0.50M U 1950BLa (17994) 721
K4=1

Cu++ sp R4N.X 15°C sat. U 1933ATa (17995) 722
B4=7.8

CH5NO3S HL CAS 13881-91-9 (7101)

Aminomethanesulfonic acid; H2NCH2SO3H

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

Cu++ gl NaCl 25°C 0.15M C 1995LMc (18041) 723
B(CuLHis)=15.85

CH5N3O L Semicarbazide CAS 563-41-7 (373)

Semicarbazide, N-Aminourea; H2N.CO.NH.NH2

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

Cu++ gl KNO3 30°C 0.10M U K1=4.00 B2=6.94 1971AGa (18048) 724

By spectrophotometry K1=4.20, B2=7.10

CH5N3S L CAS 79-19-6 (372)
Thiosemicarbazide; H2N.CS.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	con	KNO3	25°C	1.00M	U			K1=5.53 B2=10.42	1979E0a (18057)	725
Cu++	sp	KNO3	25°C	0.50M	U			K1=3.30 B2=7.87	1979LGA (18058)	726
Cu++	sp	KNO3	30°C	0.10M	U			K1=6.11 B2=11.59	1971AGA (18059)	727

CH5N3Se L CAS 21198-79-8 (371)
Selenosemicarbazide; H2N.CSe.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	KNO3	30°C	0.10M	U			K1=5.54 B2=10.82	1971AGA (18084)	728

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C	I R		K1=3.50	2001PRa (18104)	729

IUPAC Recommended value

Cu++	gl	mixed	25°C	30%	M			K1=4.466	1993BCg (18105)	730
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Medium: 0.1 M NaNO3 in 30% Dioxane/H2O (v/v)

Cu++	gl	NaNO3	25°C	0.10M	M			K1=3.492 K(Cu(bpy)+L)=3.506	1993CBb (18106)	731
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Cu++	gl	NaNO3	25°C	0.10M	C	I		K1=3.49 K1=4.47 (5.13).	1993CGa (18107)	732
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In 30% (50%) v/v 1,4-dioxan/H2O,

Cu++	gl	NaNO3	25°C	0.10M	M			K1=3.49	1992SCa (18108)	733
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Cu++	gl	KCl	25°C	0.10M	U			K1=3.40 K(Cu+L=CuL(OH)+H)=-3.43	1986NIa (18109)	734
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Cu++	gl	KNO3	25°C	0.10M	U			K1=3.52 K(Cu+L=Cu(OH)L+H)=-3.4	1979WNa (18110)	735
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CH5O4P H2L CAS 2617-47-2 (1977)
Hydroxymethylphosphonic acid; HO.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++ gl KNO3 25°C 0.10M U K1=3.53 1979WNa (18142) 736
 K(Cu+L=Cu(OH)L+H)=-2.65

CH5O4P H2L CAS 86703-09-5 (1751)

Methylphosphoric acid; CH3OP(O)(OH)2

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

Cu++ gl NaNO3 25°C 0.10M M K1=2.94 1996SSa (18156) 737

Cu++ gl NaNO3 25°C 0.10M C M K1=2.94 1996ZSa (18157) 738

K(Cu(bpy)+L)=2.98

K(Cu(phen)+L)=2.97

 Cu++ gl NaCl 25°C 0.15M C H K1=2.819 1991KLa (18158) 739

B(CuH-1L)=-3.25

DH(K1)=29.9 kJ mol⁻¹, DS(K1)=154.4 J K⁻¹ mol⁻¹

CH6NO3P H2L AMPA CAS 1066-51-3 (1981)

Aminomethylphosphonic acid; H2N.CH2.PO3H2

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

Cu++ gl KNO3 25°C 0.10M C I R K1=8.10 B2=14.70 2001PRa (18190) 740

K(Cu+HL)=2.6

IUPAC Recommended values

 Cu++ gl NaNO3 25°C 0.10M C K1=8.09 1994SCa (18191) 741

K(Cu+HL)=2.67

K(CuL+H)=4.66

 Cu++ gl KNO3 25°C 0.10M U K1=8.12 B2=14.65 1979WNB (18192) 742

B(CuHL)=12.56

B(CuHL2)=20.20

B(CuH2L2)=24.8

B(CuH-1L)=-0.4

 Cu++ gl NaClO4 25°C 0.10M U K1=7.85 B2=14.06 1976SOa (18193) 743

B(CuHL)=13.25

B(CuH2L2)=26.77

 Cu++ oth none 25°C 0.0 U K1=8.08 B2=14.60 1974WNB (18194) 744

B(CuHL)=12.56

B(CuHL2)=20.27

B(CuH2L2)=24.96

 Cu++ gl oth/un 25°C 0.10M U K1=8.2 B2=14.10 1972AUa (18195) 745

 Cu++ gl NaClO4 25°C 0.50M U K1=7.77 B2=14.09 1971GDa (18196) 746

Cu++ gl KNO3 25°C 0.10M U K1=7.95 B2=14.6 1971WNb (18197) 747
B(CuHL)=12.56
B(CuH2L2)=25.5
B(CuHL2)=20.4

Cu++ gl KNO3 25°C 0.10M U K1=7.85 B2=14.6 1971WNC (18198) 748
B(CuHL)=12.80
B(CuHL2)=20.6

CH6N4O L Carbohydrazide CAS 497-18-7 (3537)
Carbohydrazide; H2N.NH.CO.NH.NH2

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

Cu++ gl NaClO4 20°C 0.10M U K1=4.92 B2=8.97 1964COd (18234) 749

CH6O6P2 H4L Medronic acid CAS 1984-15-2 (2384)
Methanediphosphonic acid; CH2(PO3H2)2

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

Cu++ gl KCl 25°C 0.10M U K1=13.29 B2=23.98 1967KLa (18257) 750
K(Cu+HL)=6.78
K(Cu+2HL)=12.88
K(2Cu+L)=18.54
K(2Cu+HL)=11.57

CH6O6P2 H3L CAS 126959-77-1 (7577)
Methylphosphonylphosphoric acid; CH3PO(OH)OPO3H2

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

Cu++ gl NaNO3 25°C 0.10M M M K1=5.66 1998SSb (18302) 751
K(Cu+HL)=2.4
K(CuL+H)=3.3
K(Cu(bpy)+HL)=2.5
K(Cu(bpy)+L)=6.08
K(Cu(bpy)L+H)=3.0, K(Cu(phen)+HL)=2.5, K(Cu(phen)+L)=6.11
K(Cu(phen)L+H)=3.0.

CH7N06P2 H4L (6919)
Aminomethylenebis(phosphonic acid); NH2.CH(PO3H2)2

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

Cu++ gl KCl 25°C 0.10M C K1=14.32 B2=19.06 1997BDa (18314) 752
B(CuH2L)=23.97
B(CuHL)=20.18
B(CuHL2)=27.10

CH7010P3 H4L CAS 103134-29-8 (3538)
Methyltriphosphoric acid; CH3.O.P(O)(OH).O.P(O)(OH).O.P(O)(OH)2

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

Cu++ gl NaClO4 20°C 0.10M U K1=6.17 1964SBb (18317) 753
K(CuL+H)=3.93

C2H02C13 HL Trichloroacetic CAS 76-03-9 (1205)
Trichloroethanoic acid; Cl3C.COOH

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

Cu++ sp NaClO4 25°C 1.00M U I K1=0.17 1978TPa (18324) 754

Cu++ sp non-aq 25°C 100% U K1=3.23 1970SSF (18325) 755

C2H02F3 HL Trifluoroacetic CAS 76-05-1 (1360)
Trifluoroethanoic acid; F3C.COOH

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

Cu++ cal non-aq 25°C 100% U H K1=2.84 B2=3.95 1980LPd (18344) 756
DH=7.85 kJ mol-1.

Cu++ con non-aq 25°C 100% U K1=1.95 1979PPb (18345) 757
Medium: DMSO

C2H202C12 HL CAS 79-43-6 (1282)
Dichloroethanoic acid; Cl2CH.COOH

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

Cu++ gl diox/w 25°C 70% M K1=2.32 1990BSb (18384) 758
Medium: 70% v/v DMSO/H2O, 0.1 M NaNO3

Cu++ sp NaClO4 25°C 1.00M U I K1=0.74 1978TPa (18385) 759

Cu++ sp alc/w 25°C 100% U K1=3.22 1970SSF (18386) 760

Cu++ gl NaClO4 20°C 1.00M U K1=0.7 1969PJc (18387) 761

C2H202F2 HL Difluoroacetic CAS 381-73-7 (6782)
Difluoroethanoic acid; F2HC.COOH

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

Cu++ gl diox/w 25°C 70% M K1=2.33 1990BSb (18405) 762
Medium: 70% v/v DMSO/H2O, 0.1 M NaNO3

C2H2O3 HL Glyoxylic acid CAS 298-12-4 (1142)
Glyoxylic acid; OHC.COOH

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

Cu++ gl KNO3 30°C 0.10M C M K1=2.15 1978MAd (18412) 763
B(CuAL)=11.56
K(CuAL+H)=4.93
K(CuAL+OH)=6.58

A=DL-O-phosphoserine

Cu++ gl KCl 25°C 0.10M U K1=7.3 B2=14.70 1975SDa (18413) 764

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

Cu++ gl NaNO3 25°C 0.10M C M K1=4.60 B2= 8.70 1998KRa (18544) 765
B(CuLA)=8.93

HA: inosine.

Cu++ gl KNO3 35°C 0.10M C M K1=5.90 1997PSb (18545) 766
K(CuL+A)=6.24

H2A is thiamine orthophosphoric acid.

Cu++ vlt oth/un 25°C 0.1M U K1=4.5 1995FFa (18546) 767

Cu++ gl KNO3 30°C 0.10M U K1=4.82 1994RSa (18547) 768

Cu++ gl KNO3 25°C 0.10M M M K1=6.400 1993AEa (18548) 769

Cu++ gl KNO3 25°C 0.10M C M K1=4.04 1993AEb (18549) 770
K(Cu(AMP)+L)=5.21
K(Cu(ADP)+L)=5.76
K(Cu(ATP)+L)=6.46
B(CuL(AMP))=8.41

B(CuL(ADP))=11.81, B(CuL(ATP))=12.86.

Cu++ gl non-aq 25°C 100% C 1991CFa (18550) 771
K(CuA+L=CuAL)=7.394
K(CuA+H+L=CuAHL)=12.397
K(2CuA+L=Cu2A2L)=10.621

In DMSO, 0.1 M Bu4NC104. A=2,2':6',2"-terpyridyl.

Cu++ vlt KNO3 30°C 0.10M C M K1=4.70 B2= 8.82 1991STb (18551) 772
Method: polarography. Medium pH 9.5.

Ternary complexes with 2-amino-3-hydroxypyridine

Cu++ vlt KNO3 30°C 0.10M C M K1=4.70 B2= 8.82 1991STb (18552) 773

B(CuAL)=13.5

Method: polarography, medium pH 9.5. HA is 2-amino-3-hydroxypyridine.

Cu++ gl NaClO4 25°C 0.20M U M K1=4.84 B2=8.44 1990UBb (18553) 774
Ternary complexes with amino acids

Cu++ ISE NaClO4 25°C 0.10M C K1=5.65 1989COB (18554) 775

Cu++ gl KNO3 30°C 0.10M U M K1=4.82 B2=8.04 1989SRd (18555) 776
K(CuL+A)=6.63
B(CuLA)=11.45
K(CuL+C)=7.13
B(CuCL)=11.95

HA=4-amino-5-mercapto-1,2,4-triazole, HC=4-amino-5-mercapto-3-methyltriazole

Cu++ vlt NaClO4 30°C 1.0M C K1=5.64 B2= 8.53 1988GMB (18556) 777
Method: polarography. Medium pH 5.0.

Cu++ gl KNO3 25°C 0.10M U M K1=4.28 B2=8.25 1988NSb (18557) 778
B(CuLA)=8.54

H2A=malonic acid

Cu++ vlt NaNO3 25°C 1.00M U B2=9.11 1987GAa (18558) 779

Cu++ vlt KNO3 25°C 0.50M U K1=5.43 B2=9.21 1987GAb (18559) 780

Cu++ cal KNO3 25°C 1.0M U HM 1987LGA (18560) 781
DH(K1)=-5.37 kJ mol⁻¹, DH(K2)=-5.71. DH(CuLA)=-84.7, DH(CuA2+L=CuLA+A)=-5.37
DH(CuLA+L)=CuL2+A)=-5.71. A=1,2-diaminoethane

Cu++ vlt NaNO3 25°C 1.00M U K1=6.00 B2=9.13 1985KIa (18561) 782
By linear sweep voltammetry

Cu++ gl KNO3 35°C 0.10M C M K1=6.16 1985RRc (18562) 783
B(CuL(cytidine))=9.93

Cu++ gl KNO3 35°C 0.10M C K1=6.16 1985RRh (18563) 784

Cu++ vlt KNO3 20°C 1.0M U K1=5.5 B2=9.2 1984KMc (18564) 785
By cyclic voltammetry on Hg.

Cu++ gl KNO3 25°C 0.10M U M K1=4.28 B2=8.25 1984VSA (18565) 786
B((CuLA)=7.94
K(CuA+L)=4.45
K(CuL+A)=3.66

H2A=phthalic acid

Cu++ gl NaClO4 30°C 0.10M C M K2=3.96 1984ZXA (18566) 787
B(CuLA)=8.24

A=2-hydroxybenzylamine

Cu++ vlt KNO3 30°C 0.30M C K1=5.9 B2= 9.70 1983APb (18567) 788
Method: polarography. Medium pH 8.0.

Cu++ vlt KNO3 30°C 0.30M C M 1983APb (18568) 789

B(CuL(gly))=13.20

K(CuL+gly)=7.30

K(Cu(gly)+L)=4.90

B(CuL(ala))=12.90

Method: polarography. Medium pH 8.0. K(CuL+ala)=7.00, K(Cu(ala)+L)=4.80,
B(CuL(val))=13.00, K(CuL+val)=7.10, K(Cu(val)+L)=4.80.

Cu++ vlt KNO3 30°C 0.30M C M 1983APb (18569) 790

B(CuLA)=12.20

K(CuL+A)=6.30

K(CuA+L)=5.00

Method: polarography. Medium pH 8.5. HA is beta-alanine.

Cu++ vlt NaClO4 25°C 1.00M U M K1=6.61 B2=9.54 1981PLa (18570) 791

B(CuL(malonate))=8.80

B(CuL(malonate)2)=9.70

Cu++ gl NaClO4 25°C 0.10M C K1=4.85 B2= 8.88 1980ACb (18571) 792

Cu++ gl KNO3 25°C 0.10M U M K1=4.85 B2=8.90 1980GMb (18572) 793

B(CuLA)=14.20

A=histamine

Cu++ vlt oth/un 25°C 1.0M C M K1=5.70 B2= 9.54 1980LEa (18573) 794

B(Cu(en)L)=15.44

Method: re-analysis of published polarographic data.
Medium not stated.

Cu++ vlt KNO3 30°C 1.00M C M K1=5.70 B2=9.30 1980SGc (18574) 795

Cu++ vlt KNO3 30°C 1.00M U M K1=5.7 B2=9.3 1980SSe (18575) 796

B(CuL(Asp))=13.0

Cu++ gl KNO3 25°C 2.5M M K1=6.16 1979FLc (18576) 797

Cu++ vlt NaClO4 30°C 1.50M C K1=5.70 B2= 9.50 1979PZa (18577) 798

Method: polarography. Medium pH 6.6

Cu++ vlt KNO3 24°C 1.50M U M K1=5.70 B2=9.98 1978KNb (18578) 799

B(CuL(malate))=7.99

B(CuL(tartrate))=7.99

Cu++ sol oth/un 20°C 2.10M U M K1=4.12 1978KUa (18579) 800

Kso(CuL(glycolate))=-5.74

Kso(CuL(lactate))=-5.85

Cu++ gl KNO3 25°C 0.10M U K1=6.67 B2=10.50 1977BPa (18580) 801

Cu++ oth oth/un 30°C 35% C K1=7.6 1976YGa (18581) 802
K(Cu+HL)=2.4

Method: paper electrophoresis.

Cu++ vlt KNO3 28°C 1.50M U M K1=5.70 B2=9.98 1975KNa (18582) 803
B(CuLA)=9.00
B(CuLB)=7.82
B(CuLC)=7.99

H2A=malonic acid; H2B=succinic acid; H2C=maleic acid

Cu++ cal NaNO3 25°C 1.00M U H K1=5.53 B2=9.54 1974ARd (18583) 804

Cu++ gl NaClO4 25°C 0.10M U M 1974SCa (18584) 805
B(Cu(en)L)=14.49
K(CuL+en)=9.65
K(Cu(en)+L)=4.05

en: 1,2-diaminoethane

Cu++ gl NaClO4 25°C 0.10M U M 1974SCa (18585) 806
B(Cu(pn)L)=14.31
K(CuL+pn)=9.47
K(Cu(pn)+L)=4.49

pn: 1,3-diaminopropane

Cu++ sp R4N.X 25°C 1.50M U 1973BFd (18586) 807
K(CuA+CuL2=(CuL)2A)=3.40

Medium : NH4NO3. H4A=EDTA

Cu++ gl KNO3 25°C 0.10M U K2=4.00 1969CMd (18587) 808

Cu++ dis NaClO4 20°C 0.10M U K1=4.49 B2=8.41 1969MBe (18588) 809

Cu++ dis NaClO4 25°C 1.00M U B2=9.82 1969SLb (18589) 810

Cu++ ISE NaClO4 25°C 1.0M U K1=5.53 B2=9.54 1965CVa (18590) 811

Cu++ sol KNO3 25°C 2.0M U M B2=9.70 1963FVa (18591) 812
B(Cu(en)L)=15.44

Cu++ dis NaClO4 20°C 0.10M U B2=10.46 1963STc (18592) 813

Medium: KClO4

Cu++ vlt NaNO3 25°C 1.0M U I B2=9.27 1962MRa (18593) 814
In 1 M NaNO3, heavy water: B2=9.51

Cu++ gl oth/un 25°C 0.10M U I K1=4.85 B2=9.21 1960MNa (18594) 815
K(Cu+HL)=2.49

Polarography also used. I=0: K1=6.23, K2=4.04, K=3.18

Cu++ gl oth/un 25°C 0.10M U I K1=4.84 B2=8.4 1960MNa (18595) 816
K(Cu+HL)=2.49

At I=0, K1=6.19, K2=4.04, K=3.18. By polarography, I=0.2 to 0.6, B2=9.40

Cu++ gl oth/un 25°C 0.10M U K1=6.3 1958GHc (18596) 817

Cu++ sp oth/un ? ? U 1956KIa (18597) 818
K(CuL2+Cu(en)2=2CuL(en))=1.10

Cu++ vlt oth/un 20°C 0.30M U B2=10.3 1950MEb (18598) 819

Cu++ ISE oth/un 18°C 0.06M U B2=8.3 1936BJa (18599) 820

Cu++ ISE oth/un 20°C 0.10M U B2=8.5 1929RIa (18600) 821

Cu++ sol oth/un 25°C 0.40M U K2=3.6 1905SAb (18601) 822

C2H3N L Cyanomethane CAS 75-05-8 (1399)
Acetonitrile; CH3.CN

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

Cu++ sp non-aq 25°C 100% C K1=1.19 B2= 1.86 2001IKa (19171) 823
B3=2.12

Reactions: Bn: Cu(L)6+nH2O=Cu(L)6-n(H2O)n+nL. Medium: 0-0.9 M H2O in AN.

C2H3NO4 HL CAS 625-75-2 (2968)
Nitroacetic acid; O2N.CH2.COOH

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

Cu++ kin oth/un 18°C 0.20M U K1=0.44 1949PEa (19199) 824
Medium: Ba(NO3)2

C2H3N3 HL 1,2,4-Triazole CAS 288-88-0 (381)
1,2,4-Triazole; cyclo(-NH.N:CH.N:CH-) C2H3N3

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

Cu++ gl KNO3 25°C 0.10M C K1=9.14 2002BMa (19217) 825

C2H3N3S L CAS 4005-51-0 (1426)
2-Amino-1,3,4-thiadiazole; C2HN2S.NH2

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

Cu++ gl KNO3 25°C 0.50M U K1=1.52 B2=2.67 1982GLa (19248) 826
B3=3.49

B4=3.97

C2H3O2Br HL Bromoacetic acid CAS 79-08-3 (1309)
 Bromoethanoic acid; Br.CH2.COOH

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

 Cu++ sp NaClO4 20°C 2.00M U M K1=1.82 B2=3.04 1983J0a (19269) 827
 K(Cu(bpy)+L)=1.92

Cu++ gl NaClO4 20°C 2.00M U K1=1.84 B2=3.04 1981J0a (19270) 828
 Spectrophotometry also used.

Cu++ sp alc/w 25°C 100% U K1=3.12 1970SSg (19271) 829
 Medium: EtOH

Cu++ gl diox/w 25°C 0.10M U K1=2.48 1969GPb (19272) 830
 0.1 M NaClO4 in 50% dioxane/H2O

Cu++ sol oth/un 25°C ->0 U K1=1.59 1951LWa (19273) 831

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

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

 Cu++ gl diox/w 25°C 70% M K1=3.01 1990BSb (19318) 832
 Medium: 70% v/v DMSO/H2O, 0.1 M NaNO3

Cu++ sp NaClO4 25°C 1.00M U I K1=1.02 1978TPa (19319) 833

Cu++ gl NaNO3 30°C 0.40M U K1=1.07 1970BTa (19320) 834

Cu++ vlt NaClO4 18°C 2.00M U K1=1.20 B2=1.30 1970FBa (19321) 835
 B3=1.48

Cu++ sp NaClO4 10°C 2.00M U K1=1.26 B2=1.58 1970GFa (19322) 836
 B3=2.92

Cu++ sp alc/w 25°C 100% U K1=3.12 1970SSg (19323) 837

Cu++ gl diox/w 25°C 0.10M U K1=2.53 1969GPb (19324) 838
 0.1 M NaClO4 in 50% dioxane/H2O

Cu++ EMF NaClO4 20°C 1.00M U K1=0.7 1969PJc (19325) 839

Cu++ gl diox/w 25°C 50% U K1=2.53 1969SGa (19326) 840
 Medium: 50% dioxan, 0.1 M NaClO4

Cu++ gl diox/w 25°C 50% U K1=2.57 1968EGb (19327) 841

Medium: 50% dioxan, 0.1 M NaClO4

Cu++ sp NaClO4 30°C 0.10M U K1=1.64 1968RSc (19328) 842
K1=2.00, alternative method of calculation

Cu++ gl NaClO4 25°C 3.0M U K1=1.025 B2=1.43 1964PCa (19329) 843

Cu++ sol oth/un 25°C ->0 U K1=1.61 1951LWa (19330) 844

Cu++ ISE NaClO4 20°C 1.0M U K1=0.91 B2=1.09 1948FRa (19331) 845
K3=0.36

Cu++ ISE oth/un 20°C 0.03M U K1=1.50 1934FRa (19332) 846

C2H3O2F HL Fluoroacetic ac CAS 144-49-0 (4222)
Fluoroethanoic acid; F.CH2.COOH

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

Cu++ gl diox/w 25°C 0.10M U K1=2.40 1969GPb (19400) 847
0.1 M NaClO4 in 50% dioxane/H2O

C2H3O2I HL Iodoacetic acid CAS 64-69-7 (1312)
Iodoethanoic acid; ICH2.COOH

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

Cu++ gl NaClO4 20°C 2.00M U K1=2.10 B2=3.70 1981J0a (19412) 848
Spectrophotometry also used.

Cu++ gl diox/w 25°C 0.10M U K1=2.51 1969GPb (19413) 849
0.1 M NaClO4 in 50% dioxane/H2O

C2H4NF3 L CAS 753-90-2 (6297)
Trifluoroethylamine; CF3.CH2.NH2

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

Cu++ sp NaClO4 30°C 0.50M U K1=1.19 1978GGb (19433) 850

C2H4N2O4 H2L CAS 1687-60-1 (2969)
Oxalldihydroxamic acid; (CO.NH.OH)2

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

Cu++ gl KNO3 25°C 0.10M C B2=18.22 2000SFa (19444) 851
B(CuH-1L2)=10.22
B(CuH-2L2)=0.37
B(Cu2L2)=26.17
B(Cu2H-1L2)=22.75

 C2H4N2S2 L Rubeanic acid CAS 79-40-3 (2782)
 Dithiooxamide; H2N.CS.CS.NH2

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

 Cu++ sp none 25°C 0.0 U K1=8.40 1976AMc (19449) 852

C2H4N4 HL CAS 61-82-5 (1265)
 3-Amino-1,2,4-triazole; C2H2N3.NH2

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

 Cu++ gl KNO3 25°C 0.10M C K1=8.80 2002BMa (19466) 853

Cu++ gl KNO3 25°C 0.10M U I 1997DBa (19467) 854
 K(Cu+HL)=2.55
 K(Cu+2HL)=5.21

Data also for I=0.5 and 1.0 M

 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

 Cu++ gl mixed 25°C 0.3M U I K1=5.32 B2= 7.82 1998ISb (19654) 855
 In 100% H2O K1=1.77

Medium: 0.3 M NaClO4 in 0.9 mol parts DMSO in H2O; for 0.4 mol p. K1=3.32;
 Also for 0.3 M NaClO4 in 0.4 mol parts of acetone in H2O K1=3.88; K2=1.99

 Cu++ gl NaClO4 25°C 1.0M C M K1=1.59 B2= 2.09 1994FGa (19655) 856
 K(CuA+L)=0.7
 K(CuB+L)=1.50

H2A=malonic acid, H2B=succinic acid

 Cu++ gl mixed 25°C 0.5M U K1=2.91 B2= 4.98 1991FKb (19656) 857
 B3=6.15
 for 100%H2O K1=1.35
 for 100%H2O B1=2.49

Medium: 0.5 M KNO3 in 0.5 mol parts isopropanol in H2O
 Also data for 0.1 mol part isopropanol: K1=1.84; B2=2.98

 Cu++ gl mixed 25°C 0.5M U K1=5.57 1991FKb (19657) 858
 Medium: 0.5 M KNO3 in 0.5 mol parts isopropanol in H2O
 Also data for 0.1 mol part isopropanol: K1=4.93

 Cu++ cal NaClO4 25°C 1.0M C T K1=1.50 B2= 2.30 1991VKa (19658) 859
 DH1=5.71 kJ/mol
 DH(M+2L)=9.70 kJ/mol

Also for I=3 K1=1.68; B2=2.46; DH1=4.87; DH(M+2L)=8.35

For T=35 C and I=1.0 M K1=1.52; B2=2.35; DH1=7.18 kJ/mol

Cu++	EMF	NaClO4	20°C	1.00M	C	K1=1.69 K3=0.37 K4=-0.18	B2=2.72	1991VRa (19659)	860
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Cu++	gl	diox/w	25°C	70%	M	K1=3.90		1990BSb (19660)	861
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Medium: 70% v/v DMSO/H2O, 0.1 M NaNO3

Cu++	oth	NaClO4	25°C	2.0M	U	K1=1.93		1990FTa (19661)	862
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Methods: averaged results from potentiometric, polarographic and spectrophotometric measurements.

Cu++	ISE	NaClO4	25°C	1.00M	U	K1=1.43	B2=2.25	1990VKb (19662)	863
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Cu++	gl	diox/w	25°C	30%	C I	K1=2.61		1989LCb (19663)	864
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Medium: 30% dioxan/H2O, 0.1 M NaNO3. In 0%, K1=1.85; 10%, K1=2.05; 50%, K1=3.31.

Cu++	gl	NaNO3	25°C	0.10M	C I M	K1=1.73 K(Cu(phen)+L)=1.73		1988LTc (19664)	865
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Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures

Cu++	gl	KNO3	25°C	0.20M	M M	K1=2.61 K(Cu(dien)+L)=2.40		1988SKd (19665)	866
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K(H+L)=4.59

Cu++	gl	alc/w	25°C	50%	C I M	K1=2.70 K(Cu(phen)+L)=2.70		1985BSd (19666)	867
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Medium: 50% v/v EtOH/H2O. In 50% dioxan/H2O, K1=3.31, K(Cu(phen)+L)=3.35

Cu++	gl	KNO3	25°C	0.10M	C I M	K1=1.85 K(Cu(phen)+L)=1.84		1985SMf (19667)	868
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Also data in 30, 50, 60, 70, and 90% (v/v) Ethanol/water and 10, 30, 50, 60, 70, 80, and 90% (v/v) dioxane/water.

Cu++	gl	KNO3	25°C	0.10M	C M	K1=1.85 K(Cu(phen)+L)=1.84		1984DHa (19668)	869
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Cu++	gl	KCl	25°C	0.10M	U	K1=1.75	B2=2.43	1983LTa (19669)	870
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Cu++	gl	NaNO3	25°C	0.10M	C	K1=1.81		1981BKb (19670)	871
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Cu++	sp	KNO3	25°C	0.0	C IH	K1=2.195		1981EBa (19671)	872
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Data for 25, 40 and 55 C. Values calculated from data for 0.06-0.10 M KNO3
At 55 C, K1=2.519. At 25 C, DH(K1)=12.6 kJ mol⁻¹, DS(K1)=84 J K⁻¹ mol⁻¹.

Cu++	gl	NaClO4	25°C	0.10M	C M	K1=1.78 B3=3.3 B(CuL(bpy))=10.18	B2= 2.80	1980ACb (19672)	873
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B(CuL2(bpy))=11.5
B(CuL(bpy)2)=15.78

B(CuL2(bpy)2)=18.0

Cu++ ISE KNO3 25°C 1.00M U B2=2.58 1980NWa (19673) 874

Cu++ sp non-aq 25°C 100% U I M 1980SUa (19674) 875
K(dimer)=4.2

Medium: C6H5Cl. K: Cu(CH3COO)2L2+Cu(CH3COO)2L2. L=3-chloropyridine,
Mol.fr. of L=0.0956. also data for mol.fr. of 1.0 (K=2.23) and 0.523 (K=3.0)

Cu++ ISE KNO3 25°C 0.10M C TIH K1=1.54 1979EFb (19675) 876

Method: Cu ion selective electrode. Data for 0.205 M KNO3 and 15-45 C.
At I=0, K1=2.18, DH(K1)=5.02 kJ mol⁻¹, DS(K1)=59 J K⁻¹ mol⁻¹.

Cu++ gl NaClO4 25°C 0.15M U T M K1=1.78 B2= 2.60 1978ABe (19676) 877
B3=3.2

B(Cu(py)L)=4.20

B(Cu(py)L2)=5.52

B(Cu(py)2L)=6.34

B(Cu(py)2L2)=7.50, B(Cu(py)2L3)=7.76, B(Cu(py)3L2)=9.0, B(Cu(py)3L3)=9.93.

At 37 C, K1=1.81, B2=2.64, B3=3.3, B(Cu(py)L)=4.17, B(Cu(py)L2)=5.39

Cu++ sp NaClO4 25°C 2.0M C K1=1.91 B2= 2.46 1976GFa (19677) 878

Cu++ ISE KNO3 25°C 1.00M U B2=2.58 1975NWa (19678) 879

Cu++ cal NaNO3 25°C 1.00M U H K1=1.33 B2=2.31 1974ARd (19679) 880

Cu++ kin NaClO4 25°C 1.00M U K1=1.72 1973HHb (19680) 881

Cu++ sp oth/un ? 100% U M 197250b (19681) 882

K(Cu2L4+2HCl=2CuClL+2HL)=4.7

K(Cu2L4+4HCl=2CuCl2+4HL)=15.2

Medium : glacial ethanoic acid.

Cu++ sp oth/un ? 100% U M 197250c (19682) 883

K(Cu2L4+2HA=2CuLA+2HL)=3.5

K(Cu2L4+4HA=2CuA2+4HL)=10.4

K(Cu2L4+2LiL)=0.89

K(Cu2L4+4LiL=2Li2CuL4)=-0.4

Medium : galcial ethanoic acid. HA=HClO4.

Cu++ gl NaNO3 30°C 0.40M U K1=1.76 1970BTa (19683) 884

Cu++ sp NaClO4 25°C 2.00M U K1=2.11 B2=2.86 1970GFa (19684) 885

Cu++ sp non-aq 25°C 100% U K1=3.37 1970SSg (19685) 886

Cu++ gl diox/w 25°C 0.10M U K1=3.36 1969GPb (19686) 887

0.1 M NaClO4 in 50% dioxane/H2O

Cu++	vlt	oth/un	25°C	0.30M	U	M			1969KTc (19687)	888
							K(CuA+L)=1.06			
A=2,2'-ethylenedioxybis[ethyliminodi(acetate)]										
Cu++	dis	NaClO4	20°C	0.10M	U		K1=2.38		1969MBe (19688)	889
Cu++	ISE	NaClO4	25°C	3.00M	U		K1=1.74	B2=2.79	1969WAa (19689)	890
Cu++	gl	diox/w	25°C	50%	U	M	K1=3.36		1968EGb (19690)	891
Medium: 50% dioxan, 0.1 NaClO4										
Cu++	vlt	NaClO4	25°C	2.00M	U		K1=1.70	B2=2.65	1968FPa (19691)	892
							B3=2.60			
							B4=2.54			
Cu++	gl	diox/w	25°C	50%	U	M			1968GPd (19692)	893
							K(Cu(bpy)+L)=3.51			
Cu++	sp	NaClO4	30°C	0.10M	U		K1=2.05		1968RSc (19693)	894
K1=2.66 by alternative method of calculation										
Cu++	sp	oth/un	35°C	1.65M	U	I	K1=1.28		1967ADd (19694)	895
K1=1.92(I=0), 1.51(I=0.05)										
Cu++	oth	oth/un	?	?	U		B2=3.54		1967MBa (19695)	896
Method: paper electrophoresis										
Cu++	EMF	NaClO4	25°C	3.0M	U	I	K1=1.87	B2=3.12	1966GEa (19696)	897
							B3=3.58			
							B4=3.33			
Method: quinhydrone electrode. I=1: K1=1.71, B2=2.71										
Cu++	vlt	NaClO4	25°C	1.0M	U	M	K1=1.30	B2=2.04	1965TSb (19697)	898
							B(CuL(SO4))=1.6			
							B(CuL(SO4)2)=1.8			
Cu++	gl	oth/un	25°C	0.0	U		K1=2.23	B2=3.63	1964AMa (19698)	899
Cu++	gl	non-aq	25°C	100%	U		K2=7.90		1964KLa (19699)	900
Medium: ethanoic acid										
Cu++	ix	oth/un	20°C	?	U		K1=>1.65	K2=1.1	1964LUa (19700)	901
							K3=0.4			
Cu++	gl	NaNO3	25°C	4.0M	U		K1=2.52	B2=3.33	1963SWb (19701)	902
Cu++	gl	NaClO4	20°C	0.10M	U		K1=1.89	B2=3.09	1962KPa (19702)	903

Cu++ vlt oth/un 15°C 0.20M U T K1=1.61 B2=2.28 1960TKb (19703) 904
K1=1.72(25 C), K2=0.25(25 C); K1=1.84(35 C), K2=0.07(35 C)

Cu++ gl oth/un 25°C 0.10M U K1=1.8 1960YYa (19704) 905

Cu++ sp oth/un 25°C ? U K1=2.19 1957BDb (19705) 906

Cu++ oth oth/un ? 0.0 U K1=2.24 1956YFa (19706) 907

Cu++ gl NaNO3 24°C 2.0M U B2=2.78 1955GLd (19707) 908

Cu++ gl oth/un 30°C 0.0 U K1=2.40 B2=3.30 1953SAb (19708) 909

Cu++ ix NaClO4 20°C 1.0M U K1=1.65 B2=2.65 1951FRa (19709) 910
K3=0.36

Cu++ sol oth/un 25°C ->0 U K1=2.24 1951LLWa (19710) 911

Cu++ EMF NaClO4 20°C 1.0M U K1=1.67 B2=2.65 1948FRa (19711) 912
K3=0.42
K4=-0.19

By spectrophotometry K1=1.62, K2=0.98

Cu++ gl none 18°C 0.0 U K1=2.16 B2=3.20 1945PEa (19712) 913

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

Cu++ gl NaClO4 30°C 0.10M U K1=10.01 B2=18.66 1988NDa (20275) 914

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

Cu++ gl NaClO4 25°C 0.50M C K1=2.32 B2= 3.73 1995PLa (20431) 915
B(CuH-1L)=-3.89

Cu++ ISE KNO3 25°C 0.70M U K1=2.32 1986HAe (20432) 916

Cu++ sol oth/un 20°C 2.10M U M 1978KUa (20433) 917
B(CuL(oxalate))=5.74

Cu++ sp NaClO4 25°C 2.0M C K1=2.46 1976GFa (20434) 918

Cu++ sol oth/un 25°C 0.0 U T H K1=3.10 1975DNa (20435) 919
DH=24.52 kJ mol⁻¹ and DS=141.59 J mol⁻¹ K⁻¹.

Data also at 30, 35, 40 and 45 C. Medium: glycolate buffer, pH 3.8

Cu++	gl	NaClO4	30°C	0.20M	U		K1=6.19		1975JBb (20436)	920
Cu++	cal	NaNO3	25°C	1.00M	U	H	K1=2.17	B2=3.30	1974ARd (20437)	921
Cu++	oth	NaClO4	?	?	U		K1=2.27	B2=3.74	1972BVa (20438)	922
Cu++	vlt	NaClO4	18°C	2.00M	U		K1=2.40 B3=3.90 B4=4.18	B2=3.65	1970FBa (20439)	923
Cu++	sp	NaClO4	25°C	2.00M	U		K1=2.23	B2=4.24	1970GFa (20440)	924
Cu++	ISE	NaClO4	25°C	3.00M	U		K1=2.38 B3=4.31	B2=3.11	1969WAa (20441)	925
Cu++	gl	diox/w	25°C	50%	U	M	K1=3.96 K(Cu(bpy)+L)=3.86		1968GPd (20442)	926
Cu++	ix	oth/un	20°C	?	U		K2=1.4 K3=0.3		1964LUa (20443)	927
Cu++	gl	NaClO4	25°C	3.0M	U		K1=2.50 B3=4.27	B2=4.02	1964PCa (20444)	928
Cu++	gl	NaClO4	25°C	1.0M	U	M T	K1=2.36 B(CuL(Gly))=10.2	B2=3.70	1963MPa (20445)	929
Cu++	gl	NaClO4	20°C	1.0M	U		K1=2	B2=3.8	1957LEa (20446)	930
Cu++	sol	oth/un	25°C	->0	U		K1=2.81	B2=4.58	1954EMa (20447)	931
Cu++	sol	oth/un	25°C	->0	U		K1=2.92		1951LWa (20448)	932
Cu++	oth	NaClO4	20°C	1.0M	U		K1=2.34 K3=0.29 K4=-0.22	B2=3.70	1948FRa (20449)	933

Method: EMF. By spec. K1=2.43, B2=3.70

Cu++	ISE	oth/un	20°C	0.03M	U		K1=2.7	B2=4.70	1934FRa (20450)	934
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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
Cu++	ISE	mixed	25°C	0.3M	U	TI	K1=10.5 B2=18.90	2005TBa (20960)	935

In 0.31 mol parts of propane-2-ol in H2O;
Also for 35 C K1=10.0, B2=18.6; for 45 C K1=9.7; B2=18.1

Cu++ gl NaNO3 25°C 0.10M C M K1=8.10 B2=14.78 2004SSa (20961) 936
B(CuH-1L)=0.67
B(CuH-2L)=-10.13
B(CuLA)=13.50
B(CuHLA)=17.80

B(CuH-1LA)=6.09. HA is 6-aminopenicillanic acid.

Cu++ gl KNO3 25°C 0.10M M K1=8.27 B2=14.96 2003DFa (20962) 937
B(CuHL)=13.47

Cu++ gl alc/w 25°C 40% C K1=9.43 B2=16.94 2003DKa (20963) 938
B(CuHL)=12.13

Medium: 40% v/v EtOH/H2O, 0.10 M NaCl.

Cu++ gl NaNO3 25°C 0.10M M M K1=8.19 B2=14.96 2002SKa (20964) 939
B(CuAL)=17.42

A is picolylamine

Cu++ ISE KNO3 25°C 0.10M C I K1=8.18 2001FSa (20965) 940

Also values for 8-44% MeOH/H2O, 10-50% EtOH/H2O, 12-33% DMSO/H2O,
19-48% DMF/H2O and 10-20% dioxane/H2O.

Cu++ gl oth/un 25°C 0.10M M M K1=8.12 B2=15.00 2000MOa (20966) 941
B(CuLA)=18.78

Medium: NaOH. A: 2,2'-Dipicolylamine.

Cu++ gl KNO3 25°C 0.10M C M K1=8.17 1999AAa (20967) 942

K(CuL+A)=3.78

B(CuLA)=11.95

K(CuL+B)=3.66

B(CuLB)=11.83

K(CuL+C)=3.69, B(CuLC)=11.86, K(CuL+D)=3.50, B(CuLD)=11.67.

HA=MOPSO, HB=MOPS, HC=DIPSO, HD=TAPSO.

Cu++ gl diox/w 25°C 50% M M K1=8.64 B2=16.60 1999HEa (20968) 943
K(CuA+L)=4.13

Medium: 50% v/v dioxane/H2O, 0.1 M NaNO3. H2A: tetracycline.

Cu++ gl NaNO3 25°C 0.10M C T M K1=7.85 B2=14.60 1999KAa (20969) 944
K(CuA+L)=5.80

Data for 25-55C. H2A=dipicolinic acid. DH(K1)=-27.42 kJ mol⁻¹, DS(K1)=

59.28 J K⁻¹ mol⁻¹, DH(CuAL)=-29.47 kJ mol⁻¹, DS(CuAL)=12.89 J K⁻¹ mol⁻¹.

Cu++ gl alc/w 37°C 40% C M K1=7.97 B2=14.88 1998AAa (20970) 945
B(CuLA)=13.07

K(CuL+A)=5.10

K(CuA+L)=7.42

B(CuLC)=12.93

HC:2[o-hydroxyphenylazo]-2-cyanomethyl benzimidazole. 40% EtOH/H2O, I=0.15

H2A:5-[o-hydroxyphenylazo] barbituric acid. K(CuL+C)=4.96, K(CuC+L)=7.41.

Cu++ gl KNO3 25°C 0.10M U M K1=8.16 B2=14.97 1998SYa (20971) 946
B(CuAL)=11.64
B(CuH-1AL)=5.30

HA is 2,3,4-trihydroxybutanoic acid (threonic acid).

Cu++ gl alc/w 37°C 40% C K1=7.97 B2=14.88 1997AAb (20972) 947
Medium: 40% v/v EtOH/H2O, 0.15 M NaClO4.

Cu++ gl NaNO3 25°C 0.10M U K1=8.00 1997ISd (20973) 948

Cu++ gl KNO3 25°C 0.10M U M 1997LZa (20974) 949
B(CuLA)=22.60
B(CuHLA)=28.10

HA=6-(2'-Hydroxybenzyl)-1,4,8,11-tetraazacyclotetradecane-5,7-dione. Data
for 3'-methoxy-, 3',5'-dibromo- and 5'-bromo-2'-hydroxybenzyl- derivatives

Cu++ gl KNO3 35°C 0.10M C M K1=8.51 1997PSb (20975) 950
K(CuL+A)=5.95

H2A is thiamine orthophosphoric acid.

Cu++ gl alc/w 30°C 40% C M K1=8.30 1997RRd (20976) 951
K(CuA+L)=7.27

Medium: 40% v/v EtOH/H2O, 0.10 M KNO3.

HA is 2-(phenylhydrazono)butanoic acid

Cu++ gl NaNO3 25°C 0.10M M M K1=8.16 B2=15.07 1997SKc (20977) 952
B(CuAL)=13.01
B(CuH-1AL)=5.60

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.05M C I K1=8.23 B2=15.10 1995AKa (20978) 953
Data for 0.05-2.50 m KNO3 and Me4NNO3. At I=0.0 M, K1=8.55, B2=15.554.

Cu++ gl none 25°C 0.0 C TIH K1=8.50 B2=15.66 1995CDc (20979) 954
Data for 0-0.09 M and 5-45 C. DH(K1)=-25.9 kJ mol⁻¹, DH(B2)=-54.8,

Cu++ ISE KNO3 25°C 0.10M C I K1=8.19 1995FAa (20980) 955
Also data for 0-50% w/w i-PrOH/H2O, t-BuOH/H2O, glycerol/H2O and
1,2-propyleneglycol/H2O. Method: Cu ISE.

Cu++ gl diox/w 30°C 50% U K1=8.73 1995PBb (20981) 956
Medium: 50% v/v dioxane/H2O, 0.20 M NaClO4.

Cu++ gl KNO3 25°C 0.10M M M K1=8.25 B2=15.51 1995SHc (20982) 957
K(Cu(ada)+L)=5.31

ada: N-(acetamido)-iminodiethanoic acid. K(H+L)=9.45.

Cu++ gl NaCl 25°C 0.2M C K1=8.10 B2=14.73 1995VZb (20983) 958

Cu++ gl NaNO3 37°C 0.10M U M K1=8.12 1994MGc (20984) 959
Data for ternary complexes with 6-aminopenicillanic acid

Cu++ gl NaClO4 30°C 0.20M M 1994PBb (20985) 960
K(Cu+HA+L)=15.93
B(Cu(his)L)=17.92
B(Cu2(his)L)=19.94

HA is histidine.

Cu++ gl NaClO4 30°C 0.20M M K1=7.92 B2=14.39 1994PBc (20986) 961

Cu++ gl NaClO4 25°C 0.20M C K1=8.40 1993BAb (20987) 962

Cu++ gl NaClO4 25°C 0.20M U T M K1=8.11 B2=14.78 1993PPa (20988) 963
K(CuA+L)=7.80

A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Cu++ gl alc/w 30°C 40% M K1=8.70 B2=15.73 1993RRd (20989) 964
Medium: 40% v/v EtOH/H2O, 0.10 M KNO3.

Cu++ gl KCl 25°C 0.10M U M K1=8.19 1992GMa (20990) 965
B(CuL(phen))=16.99

Cu++ vlt NaClO4 25°C 1.0M C B2=15.23 1992Rba (20991) 966
K(Cu+HL)=1.77
K(Cu+2HL)=2.71

Method: polarography.

Cu++ cal NaNO3 25°C 0.5M U M 1992SPc (20992) 967
DH1=-24.82 kJ/mol

DH(CuL+en)=-55.5 kJ mol⁻¹

Cu++ gl KNO3 35°C 0.20M C M K1=8.00 1992YKa (20993) 968
B(Cu(edda)L)=19.06
K(Cu(edda)+L)=4.56

Cu++ gl KCl 25°C 0.15M C TIH R K1=8.20 B2=15.07 1991KSa (20994) 969
0.5 M, K1=8.11, B2=14.80; 1.0 M, K1=8.31, B2=15.23.
DH(K1)=-25.6, DH(B2)=-54.3 kJ mol⁻¹. IUPAC evaluation

Cu++ gl KCl 25°C 0.10M U K1=8.2 B2=15.63 1991NSa (20995) 970

Cu++ vlt NaClO4 25°C 0.40M C K1=8.26 B2=15.42 1991YNb (20996) 971
B3=17.34
K(Cu+OH+L)=14.59
K(Cu+OH+2L)=17.31
K(Cu+2OH+L)=15.86

Method: polarography. K(Cu+2OH+2L)=18.85, K(Cu+3OH+L)=17.85.

Cu++ gl KNO3 25°C 0.10M C K1=8.11 B2=14.96 1990BPa (20997) 972

Cu++ gl KNO3 25°C 0.10M C H 1990BPa (20998) 973
B(CuL(L-His))=17.66
B(CuHL(L-His))=21.65
B(CuL(D-His))=17.66
B(CuHL(D-His))=21.65
DH(CuL(L-His))=-65.5, DH(CuL(D-His))=-65.4 kJ mol⁻¹.

Cu++ gl KNO3 37°C 0.15M C M K1=7.99 B2=14.68 1990KKc (20999) 974
B(CuL(imidazole))=11.70
B(CuL(imidazole)₂)=14.54

Cu++ gl KNO3 37°C 0.15M U M K1=7.99 B2=14.68 1990KKc (21000) 975
B(CuAL)=11.70
B(CuA₂L)=14.54

A: imidazole

Cu++ gl NaCl 25°C 5.00M C I M K1=8.72 B2=15.75 1990TRa (21001) 976
B(CuHL)=11.40
B(CuH-1L)=0.91
B(CuH-2L)=-9.64
B(CuH-1L₂)=3.82
B(CuH-2L₂)=-8.28, B(Cu₂H-3L₂)=-6.94; at I=5.0 M NaClO₄: B1=9.11, B2=17.09,
B(CuHL)=11.62; B(CuL(GlyGly))=13.29, B(CuH-1L)=4.75

Cu++ gl NaClO₄ 25°C 0.20M U M K1=7.92 B2=14.39 1990UBb (21002) 977
K(CuLA)=12.49
K(CuLC)=12.09

H₂A=oxalic acid, H₂C=malonic acid

Cu++ gl NaNO₃ 25°C 0.10M C K1=7.00 1989GAb (21003) 978

Cu++ gl KNO₃ 30°C 0.10M U M K1=8.32 B2=14.86 1989SRd (21004) 979
K(CuA+L)=7.36
B(CuLA)=14.78
K(CuC+L)=7.37
B(CuCL)=15.30

HA=4-amino-5-mercapto-1,2,4-triazole, HC=4-amino-5-mercapto-3-methyltriazole

Cu++ gl NaClO₄ 21°C 0.10M M K1=8.91 B2=15.31 1989WLa (21005) 980
B(CuHL)=11.59

Cu++ gl alc/w 30°C 40% M M K1=9.80 B2=12.95 1988ARb (21006) 981
K(CuA+L)=8.54
B(CuAL)=18.04

Medium: 40% EtOH/H₂O, 0.05 M KNO₃. HA=acetylacetone

Cu++ gl NaClO₄ 25°C 0.10M C M K1=8.16 B2=14.97 1988CLa (21007) 982
B(CuL(acetylglycinate))=10.52

Cu++ cal NaClO4 25°C 0.10M C H 1988LGa (21008) 983
DH(K1)=-28.0 kJ mol⁻¹, DH(K2)=-28.3 kJ mol⁻¹. For HA=N-acetylglycine,
DH(B(CuAL))=-25.6 kJ mol⁻¹, DS(B(CuAL))=116 J K⁻¹ mol⁻¹.

Cu++ nmr none 27°C 0.0 U H K1=8.02 B2=15.2 1987GFb (21009) 984
B3=15.43
K(Cu+HL)=1.22
K(CuL+HL)=0.94
K(CuL2+HL)=-0.56

K(CuL2+OH)=1.46, K(CuL2+2OH)=1.56.

Cu++ gl diox/w 30°C 50% C K1=9.42 B2=17.05 1987MSd (21010) 985
Medium: 50% v/v dioxane/H2O, 0.2 M NaNO3.

Cu++ gl KNO3 35°C 0.20M C M T K1=8.00 B2=14.86 1987PMA (21011) 986

Cu++ gl alc/w 30°C 50% U T M K1=8.82 1987RSb (21012) 987
K(CuL+A)=9.35
K(CuL+C)=8.23

Medium: 50% EtOH/H2O, 0.1 M KNO3. HA=N-methylantranilic acid, HC=N-phenyl-antranilic acid

Cu++ sp oth/un 20°C 0.50M U 1987SEb (21013) 988
B(CuL(tartrate))=19.65

Medium: Na2SO4.

Cu++ gl KNO3 30°C 0.10M U HM K1=8.27 1986DRa (21014) 989
K(CuA+L)=7.49

HA=picolinic acid N-oxide. DH(K1)=-25.5 kJ mol⁻¹, DS=94.1 J K⁻¹ mol⁻¹
DH(CuA+L)=-33.0, DS=23.8

Cu++ gl KNO3 30°C 0.10M U H K1=8.27 1986DRb (21015) 990
Data for 30-50 C. DH(K1)=-22.5 kJ mol⁻¹, D(K1)=-94.1 J K⁻¹ mol⁻¹.

Cu++ ISE KNO3 25°C 0.10M U M K1=8.23 1986DVa (21016) 991
K(CuL+salicylate)=9.48

Amalgam (Cu(Hg)) mercury drop electrode.

Cu++ gl diox/w 30°C 50% U I M 1986EBa (21017) 992
K(CuA+L)=8.05
K(CuC+L)=9.42

A=2,2'-dipyridylamine, C=2,2'-dipyridylketone

Cu++ gl KCl 25°C 0.50M C M 1986LEa (21018) 993
B(CuLA)=18.244

A = ethylenediamine-N-acetate

Cu++ gl NaCl 37°C 0.15M U K1=7.870 B2=14.451 1985CFb (21019) 994
B(CuH-1L2)=3.30

Cu++ gl KNO3 35°C 0.10M C M K1=8.61 1985RRc (21020) 995
B(CuL(cytidine))=13.85

Cu++ gl KNO3 35°C 0.10M C K1=8.61 1985RRh (21021) 996

Cu++ vlt NaClO4 25°C 1.0M C B2=15.23 1985RSe (21022) 997
K(Cu+HL)=1.77
K(Cu+2HL)=2.71

Method: polarography.

Cu++ gl alc/w 25°C 50% U T HM K(CuA+L)=5.10 1985SRc (21023) 998

A=2-(N,N-diethylaminomethyl)benzimidazole. At 35 C: K=4.73; 45 C: K=4.38.
DH= -65.6 kJ mol⁻¹, DS=-122 J K⁻¹ mol⁻¹

Cu++ gl NaClO4 37°C 0.15M C M K1=7.990 B2=14.731 1984BBa (21024) 999
B(CuHL)=10.483
B(CuHL2)=18.813
B(CuH2L2)=21.875
B(CuH-1L2)=3.041

B(ML(His))=16.938

Cu++ gl diox/w 30°C 50% U M K1=8.73 B2=17.16 1984EBa (21025)1000
B(CuLA)=8.93

A=5-nitro-1,10-phenanthroline

Cu++ ISE KNO3 25°C 0.10M U K1=8.15 B2=15.03 1984HKa (21026)1001

Cu++ gl KNO3 25°C 0.10M C 1984NKa (21027)1002
K(CuH-1A+L+H)=11.68

A = glycyglycine-N,N-diethanoate (DGDA)

Cu++ ISE KNO3 25°C 0.10M C M K1=8.31 B2=15.15 1984PDb (21028)1003
K(Cu(nta)+L)=5.38

Method: Cu ion selective electrode.

Cu++ gl NaClO4 30°C 0.10M C K1=7.92 B2=14.27 1984ZXa (21029)1004

Cu++ gl KNO3 25°C 0.10M C M 1983ADa (21030)1005
B(CuHL)=18.03
B(CuHL(DOPA))=24.62

Cu++ vlt KNO3 30°C 0.30M C K1=8.3 B2=15.20 1983APb (21031)1006
Method: polarography. Medium pH 8.0.

Cu++ gl NaClO4 25°C 1.00M C K1=8.39 B2=15.32 1983BJa (21032)1007
B3=16.96
B(CuHL)=10.62

Cu++ oth NaClO4 35°C 0.10M C K1=8.22 B2=14.96 1983PYa (21033)1008

Method: paper electrophoresis.

Cu++ gl KNO3 30°C 0.10M C T HM K1=8.23 B2=15.17 1983RKa (21034)1009
B(CuAL)=7.13

HA is thiazolidine-4-carboxylic acid. DH(K1)=-24.9 kJ mol⁻¹, DS(K1)=73
J K⁻¹ mol⁻¹; DH(K2)=-27.2, DS(K2)=43; DH(CuAL)=-13.6, DS(CuAL)=92.

Cu++ sp NaCl 20°C 0.15M U M 1983Vda (21035)1010
K(CuA+L)=6.85

H2A=orotic acid (C₅H₄N₂O₄), 2,4-(1H,3H)-pyrimidinedione-6-carboxylic acid

Cu++ oth NaNO3 25°C 0.10M C K1=8.18 B2=15.08 1982CSc (21036)1011
B(CuHL)=10.45

Method: recalculation of literature data.

Cu++ gl KNO3 37°C 0.10M C I K1=7.98 B2=14.70 1982DRa (21037)1012
Data for 0.10-1.0 M KNO3. At I=0.0 M, K1=8.37, B2=15.26

Cu++ gl NaNO3 37°C 0.15M U M 1982ESa (21038)1013
B(CuLA)=11.860
B(CuLAB)=20.083
B(CuHLAB)=29.860
B(CuH2LAB)=37.230

A= Imidazole and B= Pyridoxamine.

Cu++ sp diox/w 30°C 50% U M K1=8.73 B2=17.17 1982PPb (21039)1014

Cu++ gl KNO3 25°C 0.10M U I M K1=8.14 B2=14.96 1981DAa (21040)1015
B(CuLA)=17.05
B(CuH-1LA)=5.66

A=histamine. Also data for 0-60% v/v 1-propanol

Cu++ gl KNO3 25°C 0.10M U I K1=8.14 B2=14.96 1981DAc (21041)1016
In 10% propan-1-ol: K1=8.28, B2=15.23; 20%: 8.44, 15.50; 35%: 8.62, 15.83
K1=8.77 and B2=16.14 in 45% propan-1-ol.

Cu++ gl KNO3 25°C 0.20M U M K1=8.16 B2=14.98 1981MOd (21042)1017
K(CuA+L)=7.65

A is bis(2-imidazolyl)methane

Cu++ gl oth/un 30°C 0.10M U M B2=15.15 1981REb (21043)1018
K3=3.30
B(CuAL)=15.71
B(CuAL2)=19.01
B(CuA2L)=19.78

Medium not stated. HA is threonine. K(H+L)=9.60.

Cu++ gl KNO3 30°C 0.25M M M K1=8.26 B2=15.17 1981RKb (21044)1019
K(Cu(mal)L)=12.33

Additional method: polarography.

Cu++ gl NaNO3 30°C 0.20M C M K1=8.19 B2=15.04 1981RSd (21045)1020
K(Cu(asp)+L)=6.80
B(Cu(asp)L)=15.62

H2asp is aspartic acid.

Cu++ gl NaNO3 30°C 0.20M C M 1981RSe (21046)1021
B(Cu(ida)L)=16.20
K(Cu(ida)+L)=5.60

Cu++ cal oth/un 25°C 0.10M C IH 1980BAb (21047)1022
Medium: 0.025 M CuSO4, 0.02 M glycine. DH(B2)=-54.52 kJ mol⁻¹, DS(B2)=
105.2 J K⁻¹ mol⁻¹. Also data for 10-50% w/w t-BuOH/H2O and glycerol/H2O..

Cu++ ISE KNO3 25°C 0.10M U B2=15.28 1980Nwa (21048)1023

Cu++ sp KNO3 30°C 0.25M U M 1980Rka (21049)1024
B(CuL(oxalate))=12.86

Cu++ ISE diox/w 25°C 20% U K1=8.55 B2=15.64 1980YTa (21050)1025

Cu++ gl NaClO4 37°C 0.15M C K1=8.00 B2=14.65 1979ARb (21051)1026
B(CuL(EDTA))=21.25
B(CuHL(EDTA))=30.00

Cu++ EMF mixed 30°C 80% U 1979EHa (21052)1027
B(CuH-1L)=0.42
B(CuH-2L)=-0.77

Medium: 80% Dimethylsulfoxide / 0.1M NaNO3.

Cu++ gl KNO3 25°C 2.5M M K1=8.38 1979FLc (21053)1028

Cu++ gl KNO3 25°C 0.20M C HM T K1=8.16 B2=14.98 1979MBb (21054)1029
K(Cu(bpy)+L)=7.74
DH(K1)=-28 kJ mol⁻¹, DH(K2)=-29, DH(Cu(bpy)+L)=-33

Cu++ gl KNO3 25°C 0.20M C M K1=8.16 B2=14.98 1979MBe (21055)1030
Also many ternary complexes

Cu++ gl NaClO4 25°C 0.10M C I K1=8.15 B2=15.02 1979MMh (21056)1031
At I=0.50 M, K1=8.05, B2=14.85. At I=1.0 M, K1=8.02, B2=14.86.

Cu++ gl KNO3 25°C 0.10M C M 1979YSa (21057)1032
B(Cu(His)L)=17.40

Cu++ gl diox/w 25°C 70% C I K1=10.65 B2=19.76 1979ZRa (21058)1033
Data available for various media concentrations: 10 to 70% Dioxan (V/V).

Cu++ gl R4N.X 25°C 0.10M C K1=8.29 B2=15.24 1979ZRa (21059)1034

Cu++ gl NaNO3 25°C 0.10M U T K1=8.07 B2=14.88 1978FMb (21060)1035

Cu++ gl NaNO3 20°C 0.10M U K1=8.15 B2=15.03 1978LEb (21061)1036

Cu++ ISE diox/w 25°C 10% U K1=8.12 B2=14.71 1978WIa (21062)1037

Cu++ gl KNO3 25°C 0.10M C M T K1=8.14 B2=14.96 1977D0a (21063)1038
B(CuL(Sar))=14.94
B(CuL(Thr))=15.17

Cu++ gl oth/un 30°C ? U M 1977J0a (21064)1039
K(CuA+L)=6.18

H2A=iminodiethanoic acid

Cu++ gl KCl 25°C 0.20M C M 1977NGa (21065)1040
B(CuH-1LA)=5.29
B(CuH-1LB)=5.43
B(CuH-1LC)=5.26
K(CuH-1L2+A=CuH-1LA+L)=0.83

K(CuH-1L2+B=CuH-1LB+L)=0.80, K(CuH-1L2+C=CuH-1LC+L)=1.13

HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++ ISE 30°C 0.0 U I 1976BFa (21066)1041
K3=0.23
B(CuHL)=10.52
B(CuHL2)=18.48
In D20, K3=0.28, B3=15.43

Cu++ gl KCl 25°C 0.20M C HM K1=8.07 B2=14.84 1976GSd (21067)1042
B(CuL(en))=17.69
B(CuL(pn))=16.91

By calorimetry: DH(K1)=-25.6 kJ mol⁻¹, DH(B2)=-53.9, DH(CuL(en))=-79.5,
DH(CuL(pn))=-77.0. Other data also

Cu++ gl KCl 25°C 0.20M C 1976NGd (21068)1043
K(CuH-1A2+L=CuH-1AL+A)=5.29
K(CuH-1C2+L=CuH-1CL+C)=5.43
K(CuH-1D2+L=CuH-1DL+D)=5.26

HA is glycylglycine; Hc is glycyl-DL-alpha-alanine;
HD is DL-alanyl-DL-alanine.

Cu++ gl KCl 25°C 0.20M C H K1=8.07 B2=14.84 1976SGa (21069)1044
By calorimetry: DH(K1)=-25.6 kJ mol⁻¹, DS(K1)=70 J K⁻¹ mol⁻¹;
DH(B2)=-53.9, DS(B2)=103.

Cu++ gl KNO3 25°C 0.10M C T K1=8.21 B2=15.09 1975IPb (21070)1045

Cu++ gl NaClO4 30°C 0.20M U K1=8.11 B2=14.78 1975JBb (21071)1046

Cu++ ISE KNO3 25°C 0.10M U T B2=15.28 1975Nwa (21072)1047

Cu++ gl NaNO3 25°C 0.10M M T K1=8.130 B2=14.970 1975SSd (21073)1048

Cu++ gl NaClO4 25°C 0.10M C I M K1=8.08 B2=14.76 1974GNF (21074)1049
B(Cu(ala)L)=15.13
B(CuAL)=15.80

Data for I=0.02-2.0 M NaClO4. H2A=asparagine.

Cu++ gl NaClO4 25°C 0.10M U M 1974SCa (21075)1050
B(Cu(pn)L)=17.30
K(CuL+pn)=9.03
K(Cu(pn)+L)=7.48

pn: 1,3-diaminopropane

Cu++ gl NaClO4 25°C 0.10M U M 1974SCa (21076)1051
B(Cu(en)L)=17.91
K(CuL+en)=9.64
K(Cu(en)+L)=7.47

en: 1,2-diaminoethane

Cu++ sp KNO3 25°C 1.50M U M 1973BDd (21077)1052
K(CuA+CuL2=(CuL)2A)=2.92

H4A=EDTA

Cu++ gl KCl 25°C 0.20M U T K1=8.07 B2=14.84 1973GSb (21078)1053

Cu++ ISE KNO3 25°C 0.10M U T K1=8.07 B2=14.92 1973HRa (21079)1054

Cu++ gl KCl 25°C 0.05M U M T K1=8.22 B2=15.11 1972GSc (21080)1055
B(CuL(Ala))=15.36
B(CuLA)=15.35
K(Cu+L+HTyr)=15.24
B(CuL(Ser))=15.10

HA=norvaline. B(CuL(Thr))=15.24, B(CuL(Phe))=15.30.

Cu++ gl none 25°C 0.00 U T T K1=8.57 B2=15.83 1972IJb (21081)1056
10 C: K1=8.85, K2=7.52; 40 C: K1=8.33, K2=7.00

Cu++ gl KNO3 25°C 0.10M U M 1972INa (21082)1057
B(CuL(Ala))=15.05
B(CuL(Val))=15.06
B(CuL(Ser))=14.66

Cu++ gl KNO3 25°C 0.10M U T M 1972IVc (21083)1058
K(CuA+L)=5.92
H2A=methyliminodiethanoic acid. 15 C, K=6.14; 50 C, K=5.66; 70 C, K=5.13.

Cu++ cal none 25°C 0.00 U M 1972YIa (21084)1059
B(CuL(Sar))=15.59
B(CuL(Ala))=15.81

B(CuLA)=15.89

HA=aminoisobutanoic acid

Cu++ cal KCl 25°C 0.05M U H T K1=8.18 B2=15.05 1971GNa (21085)1060
DH(K1)=-28.5 kJ mol⁻¹, DS=59 J K⁻¹ mol⁻¹, DH(B2)=-26, DS=46

Cu++ gl NaClO4 25°C 0.20M U K1=8.79 B2=16.13 1970CBd (21086)1061

Cu++ gl NaClO4 25°C 0.50M U I T K1=8.05 B2=14.84 1970FRa (21087)1062
Medium: LiClO4. Other media: 0.5 LiClO4, 54.3% methanol: K1=8.82, K2=7.36;
0.5 LiClO4, 48.1% dioxan: K1=9.19, K2=7.65

Cu++ gl NaClO4 25°C 0.10M U M T K1=8.27 B2=15.19 1970GSa (21088)1063
B(CuL(bpy))=15.92

Cu++ gl KNO3 37°C 0.15M U T K1=8.02 B2=14.72 1969CPc (21089)1064
K(Cu+HL)=1.22
K(CuL+HL)=0.94

Cu++ gl KNO3 25°C 0.10M U T K1=8.23 B2=15.19 1969GEb (21090)1065

Cu++ sp NaClO4 25°C 0.50M U T K1=8.16 B2=15.07 1969PPb (21091)1066

Cu++ gl KNO3 25°C 0.10M U T K1=8.20 1969YHa (21092)1067

Cu++ gl KNO3 ? 0.20M U T 1968GSb (21093)1068
K3=1.34

Cu++ gl KCl 25°C 0.50M U M T K1=8.12 B2=14.87 1968LBa (21094)1069
B3=15.3

Ternary complexes with NTA, solochrome violet R, glycollic acid,
salicylaldehyde, 5-sulfosalicylic acid

Cu++ cal NaClO4 25°C 0.10M U H 1967BBd (21095)1070
DH(K1)=-28.3 kJ mol⁻¹, DS=69.4 J K⁻¹ mol⁻¹; DH(K2)=-28.8, DS=36.4

Cu++ gl KNO3 20°C 0.10M U T H T K1=8.313 B2=15.363 1967GNa (21096)1071
K1=8.23(25 C), 8.17(30 C); B2=15.19(25 C), 15.06(30 C).
DH(K1)=-24.7 kJ mol⁻¹, DS=75.2 J K⁻¹ mol⁻¹; DH(K2)=-27.2, DS=46

Cu++ gl NaClO4 25°C 0.10M U M T K1=8.27 B2=15.19 1967SGa (21097)1072
K(Cu(bpy)+L)=7.88

Cu++ cal KNO3 20°C 0.10M U H 1967SS1 (21098)1073
DH(B2)=-53.5 kJ mol⁻¹, DS=105.3 J K⁻¹ mol⁻¹

Cu++ gl oth/un 40°C 0.0 U T H T K1=8.42 B2=15.27 1966AGa (21099)1074
K1=8.85(10 C), 8.58(25 C); K2=7.36(10 C), 7.09(25 C).
DH(K1)=-24.4 kJ mol⁻¹, DS=82.3 J K⁻¹ mol⁻¹; DH(K2)=-28.5, DS=39.7

Cu++ cal oth/un 25°C 0.0 U T H T 1966AGa (21100)1075
Medium:0 corr. 10-40 C. DH(K1)=-30.4 kJ mol⁻¹(10 C), -25.99(25 C), 24.03(40 C)
DS=61.9 J K⁻¹ mol⁻¹(10 C), 76.91(25 C), 84.43(40 C)

Cu++ cal oth/un 25°C 0.0 U T H T 1966AGa (21101)1076
Medium:0 corr. 10-40 C. DH(K2)=-28.9 kJ mol⁻¹(10 C), -29.26(25 C), 30.63(40 C)
DS=38.5 J K⁻¹ mol⁻¹(10 C), 38.0(25 C), 33.0(40 C)

Cu++ gl KCl 25°C 0.50M U T K1=8.11 B2=14.43 1966LHc (21102)1077

Cu++ gl R4N.X 25°C 1.0M U M T K1=8.29 B2=15.30 1965BMa (21103)1078
B(Cu(NH3)L)=12.50
B(Cu(NH3)2L)= 14.85

Medium: NH4ClO4

Cu++ sp NaClO4 25°C 1.0M U T K1=8.33 B2=15.20 1965MBb (21104)1079

Cu++ gl KCl 40°C 0.20M U T H K1=8.25 B2=14.89 1965SMb (21105)1080
K1=8.54(15 C), 8.46(25 C); K2=7.0(15 C), 6.83(25 C).
DH(K1)=-20.1 kJ mol⁻¹, DS=92.0 J K⁻¹ mol⁻¹; DH(K2)=-28.4 2, DS=46

Cu++ gl oth/un 20°C 0.0 U T H T K1=8.59 B2=15.83 1964ICa (21106)1081
At 30 C: K1=8.47, K2=7.04; DH(K1)=-25.1 kJ mol⁻¹, DS1=79.4 J K⁻¹ mol⁻¹;
DH(K2)=-26.8, DS=46.0

Cu++ oth KNO3 20°C 0.10M U K1=8.6 B2=15.80 1964J0a (21107)1082
K3=0.15

Method: paper electrophoresis

Cu++ vlt diox/w 25°C 50% U I B2=16.3 1963GTb (21108)1083
Medium: 50% dioxan. B2=14.6(0%), 15.6(20%), 16.0(35%)

Cu++ gl NaClO4 25°C 0.15M U I R K1=8.18 B2=15.02 1963MPb (21109)1084
At I=1: K1=8.33, B2=15.20

Cu++ oth oth/un 25°C 0.30M U T B2=15.2 1961JWa (21110)1085
K3=0.47

Method: platinum electrode. Medium: K2SO4

Cu++ gl NaClO4 20°C 0.01M U K1=8.34 B2=15.39 1960ASb (21111)1086

Cu++ gl KCl 0°C 0.09M U T H T K1=8.61 B2=15.95 1957MMa (21112)1087
30 C: K1=8.04, K2=6.39; 48.8 C: K1=7.73, K2=6.49. DH(K1)=-29 kJ mol⁻¹,
DS=59 J K⁻¹ mol⁻¹

Cu++ ix oth/un 22°C ? U T K1=8.1 B2=15.0 1957WFa (21113)1088

Cu++ gl oth/un 20°C .001M U K1=8.60 B2=15.54 1956CDa (21114)1089
By polarography: B2=15.20

Cu++ gl oth/un 25°C 0.15M U T H B2=13.10 1956LWa (21115)1090
B2=14.83(30 C), 14.22(40 C). DH(B2)=-88 kJ mol-1, DS=-4 J K-1 mol-1

Cu++ gl oth/un 32°C 0.05M U K1=8.13 B2=14.98 1956SRb (21116)1091

Cu++ gl KNO3 25°C 0.10M U K1=8.07 B2=14.97 1955MMa (21117)1092
By polarography: K1=8.0, K2=7.3

Cu++ gl NaClO4 25°C 0.10M U T K1=8.38 B2=15.25 1954BCb (21118)1093

Cu++ gl KCl 20°C 0.10M U T K1=8.12 B2=15.03 1954IRa (21119)1094

Cu++ oth oth/un 25°C 0.06M U B2=15.1 1954Lda (21120)1095
METHOD:E, pol
MEDIUM:KH2PO4

Cu++ gl oth/un 20°C 0.01M U K1=8.5 B2=15.4 1953ALa (21121)1096

Cu++ gl oth/un 25°C ->0 U T K1=8.62 B2=15.59 1951MOa (21122)1097

Cu++ gl oth/un 25°C 0.01M U K1=8.51 B2=15.42 1950MMa (21123)1098

Cu++ vlt oth/un 25°C 0.05M U B2=15.1 1949LAd (21124)1099
Medium: KH2PO4

Cu++ sol oth/un 25°C ->0 U T K1=8.29 B2=15.90 1948KEa (21125)1100

Cu++ vlt KNO3 25°C 1.0M U I T B2=15.28 1946KEa (21126)1101
B3=16.25

At I=0.1 M B2=15.13

Cu++ gl KNO3 20°C 0.50M U K1=8.22 B2=15.19 1945FLa (21127)1102
K3<1

Cu++ ISE oth/un 20°C 0.03M U B3=16.4 1934FRa (21128)1103

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

Cu++ gl KCl 25°C 0.20M C M 2000FEa (21779)1104
B(Cu(en)L)=17.65
B(Cu(bpy)L)=16.90
B(Cu(gly)L)=14.92
B(Cu(dien)L)=19.70
K(Cu(terpyridine)+L)=4.21, B(CuH-1(en)L)=7.49, B(CuH-1(bpy)L)=7.31.

Cu++ gl KCl 25°C 0.20M C I K1=7.89 B2=14.06 1998FKa (21780)1105

B(CuH-1L2)=4.44
K(Cu+HL=CuL+H)=-1.38

In 50% m/m MeOH/H2O, 0.2 M KCl: K1=9.00, B2=15.89, K(Cu+HL=CuL+H)=-0.93.
In 50% m/m DMSO/H2O, 0.2 M KCl: K1=9.12, B2=16.48, K(Cu+HL=CuL+H)=-1.38.

Cu++ gl KCl 25°C 0.20M C M K1=7.89 B2=14.06 1993FBa (21781)1106
B(CuH-1L2)=4.44
B(CuAL)=14.93

HA: alanine

Cu++ gl NaCl 31°C 0.15M U I K1=8.13 B2=14.74 1992SKa (21782)1107
Also data for 25 and 50% v/v EtOH/H2O.

Cu++ gl KNO3 25°C 0.10M C M K1=8.15 B2=14.57 1991DAc (21783)1108
K(Cu(ida)+L)=6.20
K(Cu(bpy)+L)=8.10
K(CuA+L)=8.05
K(Cu(phen)+L)=8.25

K(CuB+L)=8.62, K(CuC+L)=7.94. A: 2,2'-dipyridylamine;
B: 5-nitro-1,10-phenanthroline; C: 5-methyl-1,10-phenanthroline.

Cu++ gl KNO3 25°C 0.10M C M K1=8.15 B2=14.57 1989DAb (21784)1109
B(Cu(ida)L)=16.77
B(Cu(mida)L)=17.12
B(Cu(nta)L)=17.65
B(Cu(bpy)L)=16.10

B(Cu(phen)L)=17.35, B(CuAL)=15.55 where H3A is N-(2-carboxyphenyl)-
iminodiethanoic acid

C2H5NO3 HL CAS 2921-14-4 (1892)
Aminoxyethanoic acid; H2N.O.CH2.COOH

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

Cu++ gl KNO3 25°C 0.50M U K1=5.02 1985WTa (21823)1110

Cu++ gl KNO3 30°C 0.20M M K1=6.79 B2=11.90 1984JMa (21824)1111

C2H5N3O2 L Biuret CAS 108-19-0 (1126)
Carbomoylurea (Allophanic acid); H2N.CO.NH.CO.NH2

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

Cu++ gl NaClO4 25°C 0.01M U T H K1=11.24 B2=19.65 1979SBa (21839)1112

Cu++ gl NaClO4 25°C 0.01M U K1=11.24 B2=19.65 1975SSb (21840)1113

Cu++ sp oth/un 20°C ? U B2=22.78 1960KAa (21841)1114

C2H5N5 L (6902)

5-Aminomethyl-1H-tetrazole; NH₂CH₂.CHN₄

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu ⁺⁺	gl	NaNO ₃	20°C	0.10M	U			K1=5.70 B2=14.96	1978LEb (21857)	1115

C ₂ H ₅ O ₅ P		H ₂ L						CAS 590-54-5	(1764)	
Acetylphosphoric acid; CH ₃ .CO.O.PO ₃ H ₂										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu ⁺⁺	gl	KNO ₃	37°C	0.15M	M	M		K1=7.14 B2=10.99	1979SPb (21867)	1116
K(Cu+HL)=3.83										
B(Cu ₂ L)=9.0										

Data for ternary complexes with Gly and His

C ₂ H ₆ N ₂ O		L	Glycinamide					CAS 598-41-4	(60)	
2-Aminoethanoic acid amide; H ₂ N.CH ₂ .CO.NH ₂										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu ⁺⁺	gl	NaNO ₃	25°C	0.10M	M	M		K1=4.7	2002SKa (21924)	1117
B(CuAL)=14.07										
B(CuH-1L)=-1.58										
B(CuAH-1L)=6.77										

A is picolylamine

Cu ⁺⁺	gl	KNO ₃	25°C	0.10M	C	M		K1=5.353 B2=9.30	1993SSb (21925)	1118
B(CuH-1L)=-1.482										
B(CuH-1L ₂)=2.601										
B(CuH-2L)=-5.50										
B(Cu(phen)L)=14.24										
B(CuH-1(phen)L)=6.70, B(Cu(bpy)L)=13.17, B(CuH-1(bpy)L)=5.46, B(Cu(en)L)=15.212, B(CuH-1(en)L)=7.618										

Cu ⁺⁺	gl	KCl	25°C	0.50M	C			K1=5.50 B2=9.86	1982BZa (21926)	1119
K(CuH-1L+H)=7.40										
K(CuH-2L+2H)=16.50										
K(CuH-1L ₂ +H)=8.09										
K(CuL ₂ H-2+H)=10.23										

Cu ⁺⁺	gl	NaClO ₄	37°C	0.15M	U	M			1982NAa (21927)	1120
B(CuHLA)=20.1										
B(CuLA)=15.30										
B(CuH-1LA)=8.14										
B(CuLB)=11.89, B(CuH-1LB)=4.89. A=2,3-diaminopropanoic acid, B=3-aminobutanoic										

Cu ⁺⁺	gl	NaClO ₄	37°C	0.15M	U	M			1982NAa (21928)	1121
B(CuHLA)=21.82										
B(CuLA)=15.58										

B(CuH-1LA)=8.10

A=2,4-diaminobutanoic acid

Cu++ gl NaClO4 37°C 0.15M U M 1982NAa (21929)1122

B(CuHLA)=22.11

B(CuLA)=14.95

B(CuH-1LA)=6.65

A=ornithine. B=2-aminobutanoic acid, B(CuLB)=12.64, B(CuH-1LB)=5.71

Cu++ gl NaClO4 25°C 1.00M U K1=5.53 B2=10.00 1981NMa (21930)1123

B(CuH-1L2)=2.72

B(CuH-2L2)=-5.75

Cu++ gl NaClO4 37°C 0.15M U K1=5.53 1980NSc (21931)1124

B(CuH-1L2)=3.18

Cu++ gl NaClO4 25°C 0.10M U K1=5.29 B2=9.45 1975DBa (21932)1125

B(CuH-1L)=-1.63

B(CuH-1L2)=2.54

B(CuL2H-2)=-5.58

Cu++ gl KNO3 25°C 0.10M U K1=5.41 B2=9.63 1972BBc (21933)1126

Cu++ gl KNO3 25°C 0.10M U K1=5.22 B2=9.58 1971YMa (21934)1127

K(CuH-1L+H)=6.79

K(CuH-1L2+H)=6.95

K(CuH-2L2+H)=8.17

Cu++ gl NaClO4 25°C 0.10M U M K1=5.40 1968SIa (21935)1128

K(CuA+bpy)=5.01

B(CuA(bpy))=13.0

K(CuH-1L(bpy)+H)=7.71

Cu++ gl NaClO4 25°C 0.10M U M K1=5.40 1968SIa (21936)1129

K(CuH-1L+H)=7.01

K(CuH-1LOH+H)=8.07

K(Cu(bpy)+L)=5.01

K(CuH-1(bpy)L+H)=7.71

K(Cu(bpy)2+CuL2=2Cu(bpy)L)=2.8

Cu++ gl oth/un 25°C 0.15M U K1=5.51 B2=9.72 1957LDa (21937)1130

Cu++ gl oth/un 25°C 0.01M U K1=5.16 B2=9.56 1956DRb (21938)1131

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

Cu++ gl KNO3 25°C 0.10M C 1986HKa (21958)1132

B(CuH-1L)=-3.14
B(CuH-2L2)=-7.66

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

Cu++ gl KCl 25°C 0.50M C K1=10.682 B2=19.77 1986LEb (21978)1133
B(CuH-1L2)=10.064
B(Cu4L5)=61.763

Cu++ gl NaClO4 25°C 0.10M C K1=10.83 B2=19.89 1984PCa (21979)1134
B(CuH-1L2)=9.95
B(Cu2H-1L2)=20.91

Cu++ vlt oth/un 20°C .001M U 1956CDa (21980)1135
K1?=19.07

C2H6N4O L Guanylurea CAS 141-83-3 (2970)
Guanylurea; H2N.C(:NH).NH.CO.NH2

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

Cu++ sp KCl 30°C 0.10M U K1=4.10 B2=7.21 1960DUa (22016)1136

C2H6O L Ethanol CAS 64-17-5 (1913)
Ethanol; CH3.CH2.OH

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

Cu++ sol oth/un 25°C ? U M 1968GGb (22022)1137
K(CuCl2+L)=1.35
K(CuCl2+2L)=2.31

Cu++ sp oth/un 27°C ? U K1=0.26 B2=-4.15 1963FPa (22023)1138

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

Cu++ vlt oth/un 25°C 0.17M U 1961KPa (22048)1139
B3=20.13

Medium: phosphate buffer

C2H6OS L DMSO CAS 67-68-5 (329)
Dimethylsulfoxide; (CH3)2.SO

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

Cu++ cal non-aq 25°C 100% C H K1=3.0 B2=5.1 1989ISa (22085)1140
B3=7.3
B4=8.9

Medium: CH3CN, 0.2 M Et4NClO4. DH(K1)=-14.4 kJ mol⁻¹, DH(B2)=-34,
DH(B3)=-42, DH(B4)=-65

C2H6S2 L CAS 624-92-0 (152)
Dimethyl disulfide; CH3.S.S.CH3

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

Cu++ sp alc/w 34°C 50% C K1=0.49 1980SSa (22201)1141
Medium: 50% EtOH

C2H7N L Dimethylamine CAS 124-40-3 (802)
Dimethylamine; CH3.NH.CH3

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

Cu++ sp NaClO4 25°C 0.20M U 1991CCb (22216)1142
K(CuA+L=CuAL)=2.69

A is rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane

Cu++ sp alc/w 26°C 100% U K1=3.21 B2=5.66 1971SAi (22217)1143
K3=1.60

Medium: MeOH, 0.5 M L.HNO3

C2H7N L Ethylamine CAS 75-04-7 (156)
Ethylamine; CH3.CH2.NH2

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

Cu++ sp NaClO4 25°C 0.20M U 1991CCb (22250)1144
K(CuA+L=CuAL)=2.62

A is rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane

Cu++ vlt NaClO4 20°C 0.70M C B2=10.5 1991CSa (22251)1145
Method: differential pulse polarography.

Cu++ vlt KNO3 30°C 0.50M U 1967FHa (22252)1146
B4=11.5

B(CuL2(OH)2)=15.9

C2H7NO L Ethanolamine CAS 141-43-5 (1057)
2-Aminoethanol; H2N.CH2.CH2.OH

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

Cu++ vlt NaClO4 20°C 0.70M C M K1=6.3 B2=10.50 1991CSa (22319)1147

K(Cu+L+OH)=17.1
K(Cu+L+2OH)=19.0

Method: differential pulse polarography.

Cu++	nmr	KNO3	25°C	1.00M	U		K1=4.4	B2=8.4	1990CI d (22320)	1148
							B(CuH-1L2)=1.5			
							B(CuH-2L2)=-8.1			
<hr/>										
Cu++	sp	KNO3	25°C	1.00M	U		K1=4.63	B2=8.23	1989CGa (22321)	1149
							B(CuH-1L2)=0.90			
							B(CuH-2L2)=-8.06			
<hr/>										
Cu++	sp	NaNO3	25°C	1.50M	U	M	K1=4.26	B2=8.06	1989SVb (22322)	1150
							B3=10.82			
							B(CuL(sulfosalicylate))=12.19			
<hr/>										
Cu++	gl	KNO3	25°C	1.0M	U	M	K1=4.63	B2= 8.40	1986CTa (22323)	1151
							B(CuH-1L2)=1.49			
							B(CuH-2L2)=-8.77			
							B(CuAL)=13.5			

H2A is salicylic acid

Cu++	nmr	NaNO3	25°C	1.00M	U		K1=4.4	B2=8.4	1986TCa (22324)	1152
							B(CuH-1L2)=1.5			
							B(CuH-2L2)=-8.1			
<hr/>										
Cu++	sp	R4N.X	25°C	2.00M	C	I	K1=4.90	B2=8.85	1983DBa (22325)	1153
							K3=2.85			
							K4=1.03			
<hr/>										
Cu++	sp	KNO3	20°C	0.30M	U		K1=4.30	B2=7.94	1983TMa (22326)	1154
							K3=3.17			

For 64%(mol) MeOH solution the corresponding data are: 4.92; 3.91; 2.95

Cu++	sp	NaNO3	25°C	1.00M	U	M	K1=4.30		1982SZb (22327)	1155
							B3=11.17			
							B4=13.32			
<hr/>										
Cu++	gl	oth/un	25°C	0.10M	U		K1=4.50	B2=8.55	1981HAa (22328)	1156
							K3=3.33			

Medium: 0.1 M HOCH2CH2NH2.HNO3

Cu++	vlt	KNO3	25°C	?	C				1980AAb (22329)	1157
							B3eff=19.41			
<hr/>										
Cu++	sp	mixed	25°C	0.35M	U		K1=4.75	B2= 8.43	1979APa (22330)	1158
							K3=3.39			
							K2=3.61 in 100% H2O			
							K1=4.30 in 100% H2O			
							K3=3.12 in 100% H2O			

Medium: 35 mol % glycerine in H2O
Also data for 10 mol%:K1=4.47;K2=3.73; K3=3.23

Cu++ sp mixed 25°C 0.35M U K1=4.60 B2= 8.29 1979APa (22331)1159
K3=3.49
K2=3.61 in 100% H2O
K1=4.30 in 100% H2O
K3=3.12 in 100% H2O

Medium: 35 mol % ethyleneglycole in H2O
Also data for 10 mol%:K1=4.46;K2=3.60; K3=3.21

Cu++ vlt KNO3 30°C 2.0M U 1971SSe (22332)1160
B(CuL3OH)=17.96
B=17.7 (shift of half-wave)

Alternative method e.m.f with redox electrode

Cu++ gl oth/un 20°C dil U 1968DPa (22333)1161
K(CuH-1L+H)=7.0
B(CuH-2L+H)=9.50

Cu++ vlt KNO3 30°C 0.50M U 1967FHa (22334)1162
B(CuL(OH)2)=17.4
B(CuL2(OH)2)=19.6

Cu++ gl oth/un 25°C 0.43M U K1=4.73 B2=8.52 1966SKe (22335)1163
K3=2.87

Medium: 0.43 M L.HNO3

Cu++ gl oth/un 25°C 0.10M U K1=5.7 B2=9.80 1965DOb (22336)1164
K3=3.2
K4=2.0

Cu++ gl oth/un 30°C ->0 U B2=6.68 1964PCa (22337)1165

Cu++ vlt KNO3 30°C 0.50M U 1963STb (22338)1166
B(CuL(OH))=16.67
B(CuL(OH)2)=19.60

Cu++ vlt KNO3 30°C 0.50M U 1962FHa (22339)1167
K(Cu+2L+2OH)=19.9

Cu++ vlt KNO3 25°C 0.10M U 1959MPa (22340)1168
B4=15.44

Cu++ vlt KNO3 25°C 0.50M U 1955FKa (22341)1169
B4=16.48

C2H7NO3S HL Taurine CAS 107-35-7 (2214)
2-Aminoethane sulfonic acid; H2N.CH2.CH2.SO3H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	C	M		19990Fa (22430)	1170
							B(Cu(Gly-GlyH-1)L)=4.28 K(Cu(Gly-GlyH-1)+L)=2.95 B(Cu(Gly-AspH-1)L)=4.53 K(Cu(Gly-AspH-1)+L)=2.68		

Cu++	gl	alc/w	25°C	50%	C	M	K1=4.67	1978Mca (22431)	1171
							K(Cu(bpy)+L)=5.24 K(Cu(phen)+L)=3.08		

Cu++	gl	oth/un	20°C	0.01M	U		B2=8	1950ALa (22432)	1172

C2H7NS			HL				CAS 60-23-1	(588)	
2-Aminoethanethiol; H2N.CH2.CH2.SH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	NaCl04	25°C	0.10M	U	T H		1983Bva (22459)	1173
							K(CuL+H)=5.9		

Cu++	vlt	oth/un	25°C	0.17M	U		B2=16.24	1961KPa (22460)	1174
Medium: phosphate buffer									

Cu++	vlt	oth/un	25°C	0.26M	U		B2=16.74	1961KPb (22461)	1175
Medium: 0.264 M phosphate buffer									

C2H7N3O			L				CAS 67015-05-8	(2702)	
2-Aminoacetamidoxime; H2N.CH2.C(:NOH)NH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	NaCl04	25°C	1.00M	C		K1=8.787 B2=16.824	1986S0b (22504)	1176
							B(CuH-1L2)=10.247		

C2H7N5			L	Biguanide			CAS 56-03-1	(2967)	
Biguanide; H2N.C(:NH)NH.C(:NH)NH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	cal	KCl	25°C	0.10M	C	H		1978FMc (22516)	1177
DH(K1)=-71.1 kJ mol-1, DS=14 J K-1 mol-1; DH(K2)=-83.6, DS=108									
Cu++	gl	KCl	20°C	0.10M	U		K1=11.90 B2=21.87	1964PCa (22517)	1178
Cu++	sp	KCl	30°C	0.50M	U		B2=18.31	1959RRa (22518)	1179
Cu++	gl	oth/un	32°C	0.05M	U		K1=10.10 B2=18.35	1956SRb (22519)	1180

C2H7O3P H2L CAS 71778-99-9 (1978)
 Ethylphosphonic acid; CH3.CH2.PO3H2

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

 Cu++ gl mixed 25°C 30% M K1=4.61 1993BCg (22554)1181
 Medium: 0.1 M NaNO3 in 30% Dioxane/H2O (v/v); both K1 are only estimates
 For 0.1 M NaNO3 in 50% Dioxane/H2O (v/v) K1=5.29

Cu++ gl NaNO3 25°C 0.10M M K1=3.610 1993CBb (22555)1182
 K(Cu(bpy)+L)=3.620

Cu++ gl NaNO3 25°C 0.10M C I K1=3.61 1993CGa (22556)1183
 In 30% (50%) v/v 1,4-dioxan/H2O, K1=4.61 (5.29).

Cu++ gl NaNO3 25°C 0.10M M K1=3.61 1992SCa (22557)1184

Cu++ gl KNO3 25°C 0.10M U K1=3.59 1979WNa (22558)1185
 K(Cu+L=Cu(OH)L+H)=-2.97

C2H8NO2P H2L (6427)
 1-Aminoethylphosphonous acid; CH3.CH(NH2).PO2H2

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

 Cu++ gl KCl 25°C 0.20M C K1=4.87 B2=8.91 1991KJa (22580)1186
 B(CuH-1L2)=0.64

C2H8NO2P HL (7266)
 Aminomethyl(methylphosphinic acid); H2NCH2PO(OH)CH3

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

 Cu++ gl KNO3 25°C 0.10M C K1=4.60 1996RLa (22582)1187

C2H8NO3P H2L CAS 6323-97-3 (1862)
 1-Aminoethanephosphonic acid; CH3.CH(NH2).PO3H2

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

 Cu++ gl KNO3 25°C 0.10M C K1=8.29 B2=14.94 2001LCa (22594)1188
 B(CuHL)=12.29

Cu++ gl KCl 25°C 0.20M C K1=8.26 B2=14.66 1998KMa (22595)1189
 B(CuHL)=12.92

Cu++ gl KCl 25°C 0.20M C K1=8.29 B2=14.94 1994JKa (22596)1190
 B(CuHL)=12.29

Cu++ gl KCl 25°C 0.20M C K1=8.29 B2=14.94 1991KJa (22597)1191

B(CuHL)=12.29

Cu++ gl KCl 25°C 0.20M C K1=8.29 B2=14.94 1987KBb (22598)1192
B(CuHL)=12.29

Cu++ gl KNO3 25°C 0.10M U K1=8.50 B2=15.40 1979WNb (22599)1193
B(CuHL)=12.82
B(CuHL2)=21.0
B(CuH2L2)=25.9
B(CuH-1L)=-0.1

Cu++ gl KNO3 25°C 0.20M C K1=8.35 B2=15.11 1978MAb (22600)1194
K(Cu+HL)=2.55
K(CuL+HL)=1.36

Cu++ gl KNO3 25°C 0.10M U K1=8.24 B2=15.32 1972WNb (22601)1195
B(CuHL)=13.11
B(CuH2L2)=15.32
B(CuHL2)=21.05

C2H8NO3P H2L CAS 2041-14-7 (1863)
2-Aminoethanephosphonic acid; H2N.CH2.CH2.PO3H2

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

Cu++ gl KCl 25°C 0.20M C K1=8.53 B2=14.96 1987KBb (22619)1196
B(CuHL)=13.62

Cu++ gl KNO3 25°C 0.10M U K1=8.50 B2=14.3 1979WNb (22620)1197
B(CuHL)=13.75
B(CuHL2)=21.4
B(CuH2L2)=27.1
B(CuH-1L)=1.04

Cu++ gl KNO3 25°C 0.20M C K1=8.34 B2=14.69 1978MAb (22621)1198
K(Cu+HL)=2.67
K(CuL+HL)=1.73

C2H8NO3P H2L CAS 35404-71-8 (1987)
Methylaminomethylphosphonic acid; CH3.NH.CH2.PO3H2

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

Cu++ gl KNO3 25°C 0.10M U K1=8.29 B2=14.59 1979WNb (22637)1199
B(CuHL)=13.33
B(CuHL2)=20.98
B(CuH2L2)=25.9
B(CuH-1L)=0.09

C2H8NO4P H2L CAS 1071-23-4 (1864)

2-Aminoethyl-dihydrogenphosphoric acid; H2N.CH2.CH2.OP03H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	20°C	0.10M	U			K1=6.79 K(Cu+HL)=4.04	1987BPb (22645)	1200
Cu++	gl	KNO3	25°C	0.20M	C			K(Cu+HL)=2.54	1978MAb (22646)	1201
Cu++	gl	KNO3	25°C	0.20M	C			K(Cu+HL)=2.54	1978MAc (22647)	1202
Cu++	gl	KNO3	25°C	0.10M	U			K1=6.45 B2=12.4 B(CuHL)=12.49 B(CuH2L2)=24.7 B(CuHL2)=18.8	1972wNa (22648)	1203
Cu++	gl	KCl	25°C	0.15M	U			K1=6.39 B2=12.39 K(Cu+HL)=1.94 K(CuHL+L)=6.32	19600Sa (22649)	1204

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
Cu++	gl	KNO3	25°C	0.10M	M	M		K1=10.47 B2=19.67 B3=27.03 B(CuH-1L)=4.06 B(Cu(atp)L)=16.13 B(CuH(atp)L)=21.11 B(CuH-1(atp)L)=5.98, B(CuH-2(atp)L)=-3.58.	2003SFa (22793)	1205
Cu++	vlt	KNO3	25°C	0.10M	C			B2=20.10	2001CKb (22794)	1206
Method: cyclic voltammetry. Medium: pH 10.										
Cu++	gl	NaNO3	25°C	0.10M	C		M	K1=10.44 K(Cu+H2B04+L)=12.10	2000MAb (22795)	1207
Cu++	gl	alc/w	25°C	50%	C			K1=10.84	1998Mcb (22796)	1208
Cu++	gl	KNO3	20°C	0.10M	C			K1=10.78 B2=19.88	1997LBc (22797)	1209
Cu++	gl	alc/w	25°C	?	U	H		K1=12.02 B2=22.71	1997RFa (22798)	1210
Medium: 0.9 mol parts MeOH in H2O; DH(K1)=-50 kJ mol ⁻¹ ; DH(K2)=-51. Data also for other MeOH%. For 100% H2O: K1=10.62; K2=9.18; DH(K1)=-53, DH(K2)=-54										
Cu++	gl	alc/w	30°C	40%	C		M	K1=10.72 K(CuA+L)=9.95	1997RRd (22799)	1211

Medium: 40% v/v EtOH/H₂O, 0.10 M KNO₃.
HA is 2-(phenylhydrazono)butanoic acid

Cu++ gl diox/w 25°C 50% C M K1=10.09 B2=18.68 1996CBa (22800)1212
 K(CuL+gly-gly)=6.01
 *K(CuL(gly-gly))=-7.97
 K(CuL+gly-ala)=5.95
 *K(CuL(gly-ala))=-8.26

Medium: 50% v/v dioxane/H₂O, 0.20 M NaClO₄.
K(CuL+gly-leu)=6.34, *K(CuL(gly-leu))=-8.20

Cu++ gl alc/w 25°C 0.10M U I K1=12.38 B2=23.50 1994MFa (22801)1213
Medium: 0.9 mol parts EtOH in H₂O. Data also for EtOH/H₂O 0-0.9 mol parts).
In 100% H₂O: K1 =10.52, K2 = 9.26. Data also for acetone/H₂O mixtures

Cu++ gl KNO3 30°C 0.10M U K1=10.52 1994RSa (22802)1214

Cu++ gl KNO3 35°C 0.20M C M K1=10.32 B2=19.12 1994YVa (22803)1215
 B(Cu(P3010)L)=17.13

Cu++ sp NaNO3 25°C 0.10M U I K1=11.1 B2=20.9 1993GBb (22804)1216
Medium: 0.55 ppm Acetone in H₂O

Cu++ gl mixed 25°C 98% U K1=10.66 B2=20.03 1993MLb (22805)1217
Medium: 0.98 molar fraction of DMSO in H₂O

Cu++ gl alc/w 30°C 40% M K1=10.68 B2=19.84 1993RRd (22806)1218
Medium: 40% v/v EtOH/H₂O, 0.10 M KNO₃.

Cu++ gl KNO3 25°C 0.10M M M 19920Ma (22807)1219
 B(CuLA)=15.577

A=2-amino-4-oxopterin-6-carboxylate

Cu++ gl KNO3 35°C 0.20M C M K1=10.32 1992YKa (22808)1220
 B(Cu(edda)L)=20.97
 K(Cu(edda)+L)=6.47

Cu++ gl mixed 25°C 80% C K1=11.02 B2=20.72 1991LMa (22809)1221
Medium: 80% w/w DMSO/H₂O, 0.1 M KClO₄

Cu++ cal KNO3 25°C 1.50M U HM 1989KCa (22810)1222
DH(M(IDA)+L)=-29.1 kJ mol⁻¹

Cu++ cal oth/un 25°C dil C H K1=10.56 B2=19.60 19890Fa (22811)1223
Medium: NH₄Cl/NH₃ buffer, pH 10. DH(K1)=-54.56 kJ mol⁻¹,
DH(B2)=-107.8.

Cu++ gl NaClO4 25°C 0.20M M K1=10.499 B2=19.522 1989PBa (22812)1224
 B(CuLA)=18.26

A = pyridine-2,6-dicarboxylic acid

Cu++ gl KNO3 35°C 0.10M U M K1=10.22 1989RSb (22813)1225
K(Cu(thiodipropanoate)+L)=9.46

Cu++ gl KNO3 30°C 0.10M U M K1=10.52 B2=19.54 1989SRd (22814)1226
K(CuA+L)=9.39
B(CuAL)=16.81
K(CuC+L)=9.41
B(CuCL)=17.34
HA=4-amino-5-mercapto-1,2,4-triazole, HC=4-amino-5-mercapto-3-methyltriazole

Cu++ gl KNO3 25°C 0.10M C M 1988K0a (22815)1227
B(CuAL)=17.86
B(CuHAL)=25.25
A=2,4-Pteridinediol

Cu++ gl KNO3 25°C 0.10M U M K1=10.31 B2=18.91 1988NSb (22816)1228
B(CuLA)=15.30
H2A=malonic acid

Cu++ vlt KNO3 30°C 0.10M U K1=10.07 B2=19.47 1988YZa (22817)1229

Cu++ gl NaClO4 25°C 3.00M C IH K1=11.38 B2=21.35 1987IOc (22818)1230
Medium: LiClO4. DH(K1)=-67.1 kJ mol⁻¹, DS=-9 J K⁻¹ mol⁻¹; DH(K2)=-71.0,
DS=-47

Cu++ cal KNO3 25°C 1.0M U H 1987LGA (22819)1231
DH(K1)=-60.4 kJ mol⁻¹, DH(K2)=-59.2. DH(CuLA)=-84.7, DH(CuL2+A=CuLA+L)=-5.37
DH(CuLA+A)=CuA2+L)=-5.71. H2A=oxalic acid

Cu++ gl diox/w 30°C 50% U I M 1986EBa (22820)1232
K(CuA+L)=9.86
K(CuC+L)=10.60
A=2,2'-dipyridylamine, C=2,2'-dipyridylketone

Cu++ EMF KCl 25°C 0.10M U K1=9.68 1985SNa (22821)1233
K1=9.46 by spectrophotometry

Cu++ gl diox/w 30°C 50% U M K1=10.59 B2=20.62 1984EBa (22822)1234
B(CuLA)=10.39
A=5-nitro-1,10-phenanthroline

Cu++ gl NaClO4 25°C 3.00M U H K1=11.38 B2=21.35 1984IOa (22823)1235
DH(K1)=-67.7 kJ mol⁻¹, DH(K2)=-71.0, DS(K1)=-9.1 J K⁻¹ mol⁻¹, DS(K2)=-47.3
Alternative method: calorimetry.

Cu++ gl diox/w 25°C 35% U H K1=11.70 B2=22.00 1984IOa (22824)1236
DH(K1)=-68.6 kJ mol⁻¹, DH(K2)=-70.2, DS(K1)=-6.0 J K⁻¹ mol⁻¹, DS(K2)=-38.3
Alternative method: calorimetry.

Cu++ gl diox/w 25°C 55% U H K1=12.05 B2=22.76 1984IOa (22825)1237
DH(K1)=-66.7 kJ mol⁻¹, DH(K2)=-68.8, DS(K1)= 7.1 J K⁻¹ mol⁻¹, DS(K2)=-25.8
Alternative method: calorimetry.

Cu++ gl R4N.X 25°C 2.0M C K1=10.84 B2=20.08 1984NDa (22826)1238

Cu++ gl KNO3 25°C 0.10M C M 19840Ya (22827)1239

B(CuL(Ala))=17.949

B(CuL(Val))=17.726

B(CuL(Phe))=17.746

B(CuL(Trp))=18.078

B(CuL(Tyr))=18.462; B(CuHL(Tyr))=27.772; B(CuLA)=17.580; B(CuLB)=18.585;

B(CuHLB)=28.655. HA=O-Me-tyrosine, H2B=5-Hydroxytryptophan.

Cu++ gl KNO3 25°C 0.50M C TIH R K1=10.60 B2=19.75 1984PAa (22828)1240
IUPAC evaluation. DH(K1)=-52.5, DH(K2)=-52.9 kJ mol⁻¹

Cu++ gl KNO3 25°C 0.10M U M K1=10.31 B2=18.91 1984VSa (22829)1241

B(CuLA)=9.98

K(CuA+L)=6.49

K(CuL+A)=-0.33

H2A=phthalic acid

Cu++ gl NaClO4 30°C 0.10M C K1=10.44 B2=19.36 1984ZXa (22830)1242

Cu++ vlt KNO3 30°C 0.30M C K1=10.75 B2=20.50 1983APb (22831)1243
Method: polarography. Medium pH 8.0.

Cu++ vlt KNO3 30°C 0.30M C M 1983APb (22832)1244

B(CuL(gly))=18.75

K(Cu(gly+L))=10.45

K(CuL+gly)=8.00

B(CuL(ala))=18.45

Method: polarography. Medium pH 8.0. K(Cu(ala)+L)=10.35, K(CuL+ala)=7.70,

B(CuL(val))=18.57, K(Cu(val)+L)=10.47, K(CuL+val)=7.82.

Cu++ vlt KNO3 30°C 0.30M C M 1983APb (22833)1245

B(CuLA)=17.80

K(CuA+L)=10.60

K(CuL+A)=7.05

Method: polarography. Medium pH 8.5. HA is beta-alanine.

Cu++ gl KNO3 25°C 0.10M C I K1=10.512 B2=19.55 1983AZa (22834)1246

Cu++ vlt KNO3 25°C 1.0M C M K1=12.90 B2=18.12 1983GJb (22835)1247

B(PbAL)=15.78

B(PbBL)=15.86

Method: polarography. H2A is malonic acid; H2B is phthalic acid.

Cu++ gl KNO3 30°C 0.10M C T HM K1=10.67 B2=19.83 1983RKa (22836)1248

B(CuAL)=9.86

HA is thiazolidine-4-carboxylic acid. DH(K1)=-56.2 kJ mol⁻¹, DS(K1)=19 J K⁻¹ mol⁻¹; DH(K2)=-48.6, DS(K2)=15; DH(CuAL)=-51.7, DS(CuAL)=18

Cu++ gl KNO3 25°C 0.20M U K1=10.56 B2=19.67 1982AKa (22837)1249

Cu++ vlt NaClO4 25°C 1.5M C K1=12.0 B2=20.30 1982DDb (22838)1250
Method: polarography. Medium: pH 5.6.

Cu++ vlt KNO3 25°C 1.0M C K1=12.93 B2=18.15 1982GVa (22839)1251
Method: polarography. From potentiometric measurements K(H+L)=9.48
Medium: pH 8.0.

Cu++ gl NaCl 37°C 0.15M U K1=10.14 B2=18.84 1982HFa (22840)1252
K(Cu+2L=CuL2OH+H)=7.4

Cu++ gl KNO3 25°C 0.10M U M K1=10.65 1982KJa (22841)1253
K(Cu2(CDTA)+2L)=13.65

Cu++ gl NaNO3 30°C 0.50M M K1=11.07 B2=20.74 1982MAd (22842)1254
B(CuH-1L)=4.76

Cu++ sp diox/w 30°C 50% U M K1=10.59 B2=20.62 1982PPb (22843)1255

Cu++ ISE non-aq 25°C 100% U K1=12.39 B2=25.05 1981ATa (22844)1256
Medium: DMF, 0.1 M NaClO4

Cu++ gl KNO3 25°C 0.20M U M K1=10.60 B2=19.71 1981M0d (22845)1257
K(CuA+L)=9.59

A is bis(2-imidazolyl)methane

Cu++ vlt none 25°C 0.0 U 1981RKa (22846)1258
B(CuL(Gly))=18.04
B(CuL(Ala))=17.78
B(CuL(Ser))=17.33
B(CuL(B-Ala))=17.12

Spectrophotometry also used.

Cu++ gl NaNO3 30°C 0.20M C M K1=10.52 B2=19.65 1981RSd (22847)1259
K(Cu(asp)+L)=9.51
B(Cu(asp)L)=18.33

H2asp is aspartic acid.

Cu++ gl NaNO3 30°C 0.20M C M 1981RSe (22848)1260
B(Cu(ida)L)=18.65
K(Cu(ida)+L)=8.14

Cu++ gl KNO3 25°C 0.20M U K1=10.55 B2=19.67 1980AVc (22849)1261

Cu++ vlt oth/un 25°C 1.0M C K1=11.95 B2=20.19 1980LEa (22850)1262

Method: re-analysis of published polarographic data.
 Medium not stated.

Cu ⁺⁺	vlt	KNO ₃	25°C	0.10M	U		B ₂ =19.53	1980LZa (22851)1263
Cu ⁺⁺	ISE	KNO ₃	25°C	0.10M	U		B ₂ =19.40	1980Nwa (22852)1264
Cu ⁺⁺	gl	NaNO ₃	20°C	2.0M	U		K ₁ =9.95 B ₂ =20.94 B(CuHL)=14.55 K(Cu+HL)=4.30 B(CuHL ₂)=24.79 K(Cu+HL+L)=14.54	1980SPa (22853)1265
B(CuH ₂ L ₂)=28.81, K(Cu+2HL)=8.31								
Cu ⁺⁺	gl	KNO ₃	25°C	2.5M	M		K ₁ =10.72	1979FLc (22854)1266
Cu ⁺⁺	gl	KNO ₃	25°C	0.20M	C	HM	K ₁ =10.60 B ₂ =19.71 K(Cu(bpy)+L)=9.41	1979MBb (22855)1267
DH(K ₁)=-57 kJ mol ⁻¹ , DH(K ₂)=-50.2, DH(Cu(bpy)+L)=-46.4								
Cu ⁺⁺	gl	NaNO ₃	25°C	0.10M	U		K ₁ =10.53 B ₂ =19.16	1978FMb (22856)1268
Cu ⁺⁺	ISE	diox/w	25°C	10%	U		K ₁ =10.56 B ₂ =19.55	1978WIa (22857)1269
Cu ⁺⁺	gl	KNO ₃	25°C	0.10M	U		K ₁ =10.523 B ₂ =19.505	1977BPa (22858)1270
Cu ⁺⁺	gl	KCl	25°C	0.20M	C	HM	K ₁ =10.57 B ₂ =19.68 B(CuL(gly))=17.69 B(CuL(pn))=18.83	1976GSd (22859)1271
By calorimetry: DH(K ₁)=-53.4 kJ mol ⁻¹ , DH(B ₂)=-104.1, DH(CuL(gly))=-79.5, DH(CuL(pn))=-102.9. Other data also								
Cu ⁺⁺	gl	KCl	25°C	0.20M	C	H	K ₁ =10.57 B ₂ =19.68	1976SGa (22860)1272
By calorimetry: DH(K ₁)=-53.4 kJ mol ⁻¹ , DS(K ₁)=23 J K ⁻¹ mol ⁻¹ ; DH(B ₂)=-104.1, DS(B ₂)=27.								
Cu ⁺⁺	gl	KCl	25°C	0.20M	C	HM		1976SGa (22861)1273
B(Cu(gly)L)=17.69 K(CuL+gly)=7.12 K(Cu(gly)+L)=9.62								
By calorimetry: DH(Cu(gly)L)=-79.5 kJ mol ⁻¹ , DS(Cu(gly)L)=72 J K ⁻¹ mol ⁻¹ ; DH(CuL+gly)=-26.1, DH(Cu(gly)+L)=-53.9.								
Cu ⁺⁺	cal	non-aq	25°C	100%	U	H	K ₁ =15.6 B ₂ =28.40 K ₃ =1.25	1976WVa (22862)1274
Medium: DMSO. DH(K ₁)=-89.1 kJ mol ⁻¹ , DH(K ₂)=-73.2 and DH(K ₃)=-7.1								
Cu ⁺⁺	ISE	KNO ₃	25°C	0.10M	U		B ₂ =19.40	1975Nwa (22863)1275
Cu ⁺⁺	vlt	alc/w	25°C	40%	U		K ₁ =11.95 B ₂ =19.51	1974MIa (22864)1276

Medium: 40% w/w EtOH/H₂O; data for other EtOH/H₂O ratios also given

Cu++ gl NaClO₄ 30°C 0.15M U M K₁=10.69 1974PBb (22865)1277
B(CuL(bpy))=9.58

Cu++ sp oth/un 25°C var U 1973Y0a (22866)1278
K(Cu+CuL₂=2CuL)=1.42
pH=5.7. By ESR in 50% MeOH, K=1.61. DH=-2.1 kJ mol⁻¹, DS=20 J K⁻¹ mol⁻¹

Cu++ gl KNO₃ 25°C 0.50M U K₁=10.56 B₂=19.69 1972BFb (22867)1279

Cu++ sp R4N.X 25°C 1.50M U 1972BFd (22868)1280
K(CuL₂+CuA=Cu₂AL₂)=2.60

Medium: NH₄NO₃. H₄A=EDTA

Cu++ vlt KNO₃ 25°C 0.50M U B₂=20.3 1972HJa (22869)1281

Cu++ gl oth/un 25°C dil U K₁=10.50 B₂=19.52 1972NBa (22870)1282

Cu++ gl NaClO₄ 25°C 0.10M U K₁=10.44 B₂=19.60 1971GSb (22871)1283

Cu++ gl NaClO₄ 25°C 0.10M U M K₁=10.40 B₂=19.36 1971HBb (22872)1284
K(Cu+L=CuLOH+H)=2.7

Cu++ vlt KNO₃ 30°C 2.00M U B₂=20.33 1971SSe (22873)1285

Cu++ gl KNO₃ 25°C 0.10M U K₂=9.31 1970DNa (22874)1286

Cu++ vlt oth/un ? 0.0 U K₁=10.64 B₂=19.74 1970FAa (22875)1287

Cu++ gl NaClO₄ 25°C 0.50M U I K₁=10.61 B₂=19.90 1970FRa (22876)1288

Medium: LiClO₄. Also 0.5 LiClO₄, 54.3% methanol: K₁=10.82, K₂=9.46;
0.5 LiClO₄, 48.1% dioxan: K₁=11.24, K₂=9.88

Cu++ gl NaClO₄ 25°C 0.10M U M K₁=10.44 B₂=19.60 1970GSa (22877)1289
B(CuL(bpy))=17.15

Cu++ sp mixed 25°C 0.19M U M 1970Rba (22878)1290
K(CuL₂+A)=-0.77
K(CuL₂+B)=-1.23

A=butylamine, B=pyridine

Cu++ gl oth/un 25°C 0.10M U M K₁=10.44 B₂=19.60 1969HGb (22879)1291
B(CuLA)=23.04

H₂A=catechol

Cu++ nmr oth/un 20°C 0.5M U K₁=11.0 B₂=19.60 1969VSa (22880)1292
Method: nmr

Cu++ gl diox/w 30°C 50% U K₁=11.06 B₂=20.50 1968HOa (22881)1293

Constants corrected to zero ionic strength

Cu++	gl	NaClO4	25°C	0.30M	C	H	K1=10.45	B2=19.38	1967HWa (22882)	1294
By calorimetry DH(K1)=-52.0 kJ mol ⁻¹ , DH(K2)=-51.3										
Cu++	gl	oth/un	25°C	0.0	U	M			1967NKc (22883)	1295
							B(CuLA)=19.75			
							K(CuL2+CuA2=2CuLA)=0.31			
							B(CuLB)=17.87			
							K(CuL2+2CuA2=2CuLA)=1.83			
A=1,2-propanediamine, B=NN'-diethylethylenediamine. B(CuLC)=18.58, K(CuL2+CuC2=2CuLC)=0.98. C=1,3-propanediamine										
Cu++	gl	KNO3	37°C	0.15M	U	M	K1=10.175	B2=18.94	1967PSc (22884)	1296
							K(CuA+L)=8.15			
							K(Cu(Ser)+L)=9.31			
							K(CuB+L)=9.16			
A=histamine, H2A=salicylic acid. Ternary complexes with 1,2-diaminopropane, pentane-2,4-dione and EDTA										
Cu++	gl	oth/un	20°C	0.0	U		K1=10.66	B2=19.99	1966PSc (22885)	1297
Cu++	gl	NaClO4	25°C	var	U				1963NMc (22886)	1298
K1=10.48+0.646I-0.254I ^(1.5) +0.052I ⁽²⁾ K2=9.07+0.626I+0.122I ^(1.5) -0.2020I ⁽²⁾										
Cu++	vlt	oth/un	25°C	0.17M	U		B2=8.48?		1961KPa (22887)	1299
Medium: phosphate buffer										
Cu++	gl	oth/un	10°C	->0	U	T	K1=10.01	B2=19.58	1959MBa (22888)	1300
20 C: K1=10.67, K2=9.23; 30 C: K1=10.36, K2=8.93; 40 C: K1=10.06, K2=8.66										
Cu++	gl	none	var	0.0	U	T H			1959MBa (22889)	1301
10-40 C: DH(K1)=-53.6 kJ mol ⁻¹ , DG=-59.7, DS=21 J K ⁻¹ mol ⁻¹ ; DH(K2)=-51.5, DG=-50.58, DS=0										
Cu++	ISE	KNO3	25°C	1.0M	U		K1=10.75	B2=20.03	1958PBa (22890)	1302
Cu++	gl	oth/un	30°C	0.10M	U		K1=11.12	B2=20.73	1957BEa (22891)	1303
Cu++	gl	KNO3	25°C	0.10M	U		K1=10.5		1957MCa (22892)	1304
Cu++	gl	oth/un	25°C	1.40M	U		K1=10.72	B2=20.03	1957PBa (22893)	1305
							K3=1.0			
Cu++	sp	oth/un	25°C	?	U				1957VIa (22894)	1306
							K(CuL2+OH)=0.477			
Cu++	oth	oth/un	25°C	1.0M	U	H			1956RAa (22895)	1307
DS(Cu(NH3)4+2L=CuL2+4NH3)=61 J K ⁻¹ mol ⁻¹										

Cu++ gl oth/un 25°C 0.15M U H 1955CHa (22896)1308
0-49 C. DH(K1)=-49.7 kJ mol⁻¹, DS=37.6 J K⁻¹ mol⁻¹; DH(K2)=-47.2, DS=16.7

Cu++ gl oth/un 0°C 0.15M U T K1=11.45 B2=21.28 1955CHb (22897)1309
49.1 C: K1=10.01, K2=8.46

Cu++ sp KNO3 25°C 0.50M U 1955JRa (22898)1310
K(CuL2+OH)=0.73

Cu++ cal KNO3 25°C 1.0M U H 1955PBa (22899)1311
DH(K1)=-54.3 kJ mol⁻¹, DS=22.6 J K⁻¹ mol⁻¹; DH(B2)=-106.2, DS=26.3

Cu++ cal KNO3 0°C 0.50M U H 1954BMa (22900)1312
DH(B2)=-102.8 kJ mol⁻¹, DS=29.3 J K⁻¹ mol⁻¹

Cu++ cal KCl 25°C 0.10M U H 1954DSa (22901)1313
DH(B2)=-105.3 kJ mol⁻¹, DS=29.7 J K⁻¹ mol⁻¹

Cu++ gl diox/w 30°C 75% U K1=11 1954UFa (22902)1314

Cu++ gl oth/un 0°C ->0 U T K1=11.26 B2=21.04 1953Mca (22903)1315
30 C: K1=10.36, K2=8.93

Cu++ gl KNO3 25°C 2.15M U H K1=11.02 B2=20.61 1953SPb (22904)1316
DH(K1)=-61 kJ mol⁻¹, DH(B2)=-119

Cu++ gl KNO3 0°C 0.50M U T K1=11.43 B2=21.38 1952BMa (22905)1317
25 C: K1=10.76, K2=9.37

Cu++ gl KNO3 0°C 0.50M U H 1952BMb (22906)1318
0-25 C. DH(K1)=-35.9 kJ mol⁻¹, DS=87.8 J K⁻¹ mol⁻¹; DH(K2)=-35.9, DS=58.5

Cu++ vlt KNO3 25°C 0.10M U B2=19.72 1949LAd (22907)1319

Cu++ gl KNO3 25°C 1.0M U K1=10.72 B2=20.03 1948BNa (22908)1320
By spectrophotometry K3=-0.90

Cu++ gl KNO3 30°C 0.50M U K1=10.55 B2=19.60 1945Cma (22909)1321

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

Cu++ gl KNO3 25°C 0.10M C K1=12.0 1997DBb (23300)1322
K(CuL+H)=5.4
K(CuHL+H)=3.0

Cu++ gl KNO3 25°C 0.10M U K1=11.9 1995DSa (23301)1323

B(CuHL)=17.4
 B(CuH2L)=20
 B(Cu(OH)2)=15.1
 B(Cu(OH)3)=16

 Cu++ vlt NaClO4 25°C 0.40M C 1989N0c (23302)1324

K(Cu+H3L)=3.7
 K(Cu+H2L)=6.0
 K(Cu+HL)=10.9
 K(Cu+2H3L)=6.2

Method: polarography. Medium pH=4.6-6.4. K(Cu+H2L+H3L)=7.3,
 K(Cu+2H2L)=9.4, K(Cu+H2L+HL)=14.1.

 Cu++ cal oth/un 25°C 0.10M U H 1989VKb (23303)1325

DH(K1)=-8.4 kJ mol⁻¹, DS=230 J K⁻¹ mol⁻¹, DH(Cu+HL)=4.9, DS=178,
 DH(Cu+H2L)=4.3, DS=112

 Cu++ nmr oth/un 25°C ? U 1987ASa (23304)1326

K1=11.81
 K(Cu+HL)=6.08
 K(Cu+H2L)=3.41
 K(Cu+H3L)=1.87
 B(Cu2L)=16.94

 Cu++ gl KNO3 25°C 0.10M U 1980ZRC (23305)1327

K1=6.38
 K(Cu+HL)=4.45
 K(Cu+H2L)=2.84

 Cu++ sp oth/un 20°C dil U 1971CAF (23306)1328

K1=18.71
 K(Cu+HL)=10.64
 K(Cu+H2L)=4.90

 Cu++ ISE R4N.X 25°C 0.10M U 1971Wfa (23307)1329

K1=11.84
 K(Cu+HL)=7.47
 K(Cu+H2L)=4.80

Medium: (CH3)4NClO4

 Cu++ gl KCl 25°C 0.10M U 1967KLa (23308)1330

K1=12.48
 K(Cu+HL)=6.26
 K(2Cu+H-1L)=25.03
 K(2Cu+L)=16.86
 K(2Cu+HL)=9.55

C2H8O7P2 H5L CAS 76267-75-9 (4226)

2-Hydroxyethylidenediphosphonic acid; HO.CH2.CH(PO3H2)2

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

 Cu++ vlt NaClO4 ? 1.00M U B2=15.67 1973VNa (23408)1331

K(Cu+H2L)=8.69
 K(Cu+2H2L)=12.03

C2H9NO6P2 H4L (6773)
(Aminoethylene)diphosphonic acid, 1-Aminoethane-1,1-di(phosphonic acid);
H2N.C(CH3)(PO3H2)2

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

Cu++ gl KCl 25°C 0.10M C K1=10.40 1980Kwa (23418)1332

C2H9NO6P2 H4L IDPA CAS 32545-63-4 (1335)
Imino-N,N-bis(methylenephosphonic acid); HN(CH2PO3H2)2

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

Cu++ gl KCl 25°C 0.20M C K1=12.90 B2=16.86 1997BKb (23434)1333
B(CuHL)=17.75
B(CuH2L)=21.50
B(CuH-1L)=2.16
B(CuH4L2)=41.9

B(CuH3L2)=37.92, B(CuH2L2)=32.52, B(CuHL2)=26.73.

Cu++ gl KNO3 25°C 0.1M C K1=12.84 1985Mma (23435)1334
B(CuHL)=17.44
B(CuH2L)=20.90

Cu++ gl KNO3 25°C 1.00M U K1=12.53 1982Bgb (23436)1335
K(Cu+HL)=6.26
K(Cu+H2L)=4.44

Cu++ gl KCl 25°C 0.10M U K1=12.96 1979ZPa (23437)1336
By spectrophotometry: K1=12.57

C2H9N2O3P H2L (6483)
1,2-Diaminoethanephosphonic acid; H2N.CH(PO3H2)CH2.NH2

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

Cu++ gl KCl 25°C 0.20M U K1=12.21 B2=22.17 1990BJc (23465)1337
B(CuHL)=17.44
B(CuHL2)=28.08
B(CuH2L2)=33.48

C2H16N5O4Co HL (231)
Pentaammineoxalatocobalt(III); Co(NH3)5(HC2O4)

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

Cu++ sp NaCl04 28°C 0.30M U K1=2.67 1974NDa (23468)1338

C3H2N2O3 H2L (7432)

2-Cyano-2-(hydroxyimino)ethanoic acid; NC.C(:NOH)COOH

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

Cu++ gl KNO3 25°C 0.10M C B2=12.38 1998SDa (23483)1339
B(CuHL2)=17.14
B(Cu2H-1L2)=12.59
B(Cu2H-2L2)=3.09
B(Cu2H-3L2)=-7.01

C3H3NO L Isoxazole CAS 288-14-2 (384)
Isoxazole; cyclo(-O.N:CH.CH:CH-) C3H3NO

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

Cu++ gl KNO3 25°C 0.50M U K1=-0.32 B2= 0.30 1978KLa (23493)1340

C3H3NO2 HL Cyanoacetic CAS 372-09-8 (38)
Cyanoethanoic acid; NC.CH2.COOH

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

Cu++ gl NaClO4 25°C 2.0M U K1=0.93 B2= 1.29 1981MFa (23504)1341

Cu++ gl NaClO4 25°C 3.0M U K1=0.87 B2=1.00 1964PCa (23505)1342

C3H3NS L Isothiazole CAS 288-16-4 (383)
Isothiazole; cyclo(-S.N:CH.CH:CH-) C3H3NS

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

Cu++ gl KNO3 25°C 0.50M U K1=0.53 B2=1.80 1978KLa (23514)1343

C3H3N3O2 HL (7390)
2-Cyano-2-(hydroxyimino)acetamide; CNC.C(NOH).CO.NH2

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

Cu++ gl KNO3 25°C 0.10M C K1=3.74 1997SDb (23531)1344

B(Cu2H-2L2)=-1.06

B(CuH-2L2)=-6.64

C3H3O3Cl3 HL CAS 599-01-9 (2978)
3,3,3-Trichlorolactic acid; Cl3C.CH(OH).COOH

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

Cu++ sol oth/un 25°C ->0 U K1=1.60 1951LWa (23535)1345

C3H4N2 L Pyrazole CAS 288-13-1 (367)

1,2-Diazole, pyrazole; cyclo(-NH.N:CH.CH:CH-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	cal	NaNO3	25°C	1.0M	U	H		K1=0.25	1981ARd (23547)	1346
DH(K1)=-24.2 kJ mol ⁻¹ , DH(K2)=-20.5										
Cu++	gl	KNO3	25°C	0.50M	U			K1=2.38 B3=5.68 B4=6.60	1978LNa (23548)	1347
Cu++	gl	NaNO3	25°C	0.20M	U	I		K1=2.35 K3=1.43 K4=0.95	1970MHb (23549)	1348

I=0.08: K1=2.34; I=1.0: K1=2.41

C3H4N2 L Imidazole CAS 288-32-4 (90)
1,3-Diazole, imidazole; C3H4N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.10M	C			B(Cu2L)=11.70	2003GRb (23653)	1349
Cu++	oth	mixed	25°C	50%	U			K(2Cu(HL)A+OH)=8.90	2001ABb (23654)	1350
Method: capillary electrophoresis. Medium: 50% DMSO/H2O. K: 2Cu(HL)A+OH=ACuLCuA+H2O+HL. A=2-[2-(2-pyridyl)ethylimino-1-ethyl]pyridine.										
Cu++	gl	NaClO4	25°C	0.10M	U			K1=4.31	2001PSb (23655)	1351
Cu++	gl	KNO3	35°C	0.10M	C	M		K1=4.25 B(CuAL)=5.10	1999DSb (23656)	1352

A is thiamine hydrochloride.

Cu++	gl	NaClO4	37°C	0.15M	U	M		B(CuAL)=11.62 B(CuAL2)=14.75 K(CuA+L)=3.61 K(CuL+A)=7.41	1999NNa (23657)	1353
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K(CuL2+A)=7.20. HA is nicotinic acid.

Cu++	gl	NaClO4	30°C	0.20M	U			K1=4.12	1999PGa (23658)	1354
Cu++	gl	NaNO3	30°C	0.20M	U			K1=4.20	1999PPa (23659)	1355
Cu++	gl	NaNO3	25°C	0.50M	M			K1=4.31	1998KSa (23660)	1356
Cu++	gl	NaNO3	25°C	0.10M	U	M		K1=4.33	1998MSe (23661)	1357

Cu++ gl NaNO3 37°C 0.10M U K1=4.21 1997MGa (23662)1358

Cu++ gl NaClO4 37°C 0.15M U M 1997NAb (23663)1359

B(CuAL)=12.38
B(CuAL2)=16.00
K(CuA+L)=3.78
K(CuL+A)=8.17

H2A is cysteic acid. K(CuA+2L)=7.40.

Cu++ gl KNO3 35°C 0.10M C M K1=4.25 1997PSb (23664)1360

K(CuL+A)=8.88

H2A is thiamine orthophosphoric acid.

Cu++ gl KCl 25°C 0.10M C IH R K1=4.20 B2=7.71 1997SJa (23665)1361

K3=2.95
K4=2.25
K5=0.6
K6=0.1

IUPAC evaluation. DH(K1)=-31.8 kJ mol⁻¹(I=0.16).

I=0: K1=4.18, K2=3.49, K3=2.94, K4=2.24. I=3.0: 4.66, 3.97, 3.30, 2.66

Cu++ gl NaNO3 25°C 0.10M M M K1=4.15 B2= 7.62 1997SKc (23666)1362

B(CuAL)=10.27
B(CuH-1AL)=5.08
B3=10.35

HA is glycyl-DL-leucine.

Cu++ gl NaClO4 25°C 0.10M C M K1=4.34 1994MGb (23667)1363

K(Cu(succinate)+L)=3.80
K(Cu(malate)+L)=3.75
K(Cu(tartrate)+L)=3.74

Cu++ gl NaNO3 37°C 0.10M U K1=4.21 1994MGc (23668)1364

Data for ternary complexes with 6-aminopenicillanic acid

Cu++ gl NaClO4 37°C 0.15M U M 1994NAd (23669)1365

B(CuAL)=13.22
B(CuAL2)=17.37
K(CuL+A)=9.01
K(CuA+L)=3.76

K(CuAL+L)=4.15, K(CuL2+A)=9.82, K(CuA+2L)=7.91. H2A is aspartic acid.

Cu++ gl NaClO4 37°C 0.15M U M 1994NAd (23670)1366

B(CuAL)=13.72
B(CuAL2)=17.22
K(CuL+A)=9.51
K(CuA+L)=3.24

K(CuAL+L)=3.50, K(CuL2+A)=9.67, K(CuA+2L)=6.74. H2A is iminodiethanoic acid.

Cu++ gl KCl 25°C 0.10M U M K1=4.23 B2=7.71 1993ABa (23671)1367
K3=2.80
K4=1.89
K(CuL+CH3COO)=1.42

Cu++ gl NaNO3 25°C 0.10M M M K1=4.22 1993JCa (23672)1368
K(CuA+L)=4.11
HA=N,N-bis(2-hydroxyethyl)glycine (bicine)

Cu++ gl NaClO4 37°C 0.15M U M 1993NKb (23673)1369
B(Cu(trp)L)=12.53
B(Cu(trp)L2)=16.29
K(Cu(trp)+L)=4.30
K(CuL+trp)=8.32
K(Cu(trp)L+L)=3.76, K(Cu(trp)+2L)=8.06; B(Cu(glu)L)=12.42, B(Cu(glu)L2)=
16.24, K(Cu(glu)+L)=3.90, K(CuL+glu)=8.21, K(Cu(glu)+2L)=7.72.

Cu++ gl NaClO4 37°C 0.15M U M 1993NKb (23674)1370
K(Cu(glu)+L)=3.82
B(Cu(met)L)=12.25
B(Cu(met)L2)=15.98
K(Cu(met)+L)=4.24
K(CuL+met)=8.04, K(Cu(met)L+L)=3.73, K(Cu(met)+2L)=7.97.

Cu++ gl KNO3 25°C 0.10M M M K1=4.223 B2=7.675 19920Ma (23675)1371
B3=10.484
B4=12.44
B(CuH-1L)=-3.27
B(CuH-2L)=-11.29
B(CuH-1L2)=-0.23

Cu++ gl KNO3 35°C 0.20M C M K1=4.11 B2= 7.44 1992YKa (23676)1372
B(Cu(edda)L)=17.86
K(Cu(edda)+L)=3.36
B(Cu(edda)L2)=18.81

Cu++ gl NaClO4 25°C 0.20M U M K1=4.18 B2= 7.66 1991UBa (23677)1373
K(Cu(ida)L)=13.96
K(CuAL)=13.11
H2A is pyridine-2,6-dicarboxylic acid.

Cu++ gl KNO3 37°C 0.15M C M K1=4.04 B2= 7.46 1990KKc (23678)1374
B3=10.19
B4=12.37
Data for ternary complexes with gly, val and ala.

Cu++ gl KNO3 37°C 0.15M U K1=4.04 B2= 7.46 1990KKc (23679)1375
B3=10.19
B4=12.37

Cu++ gl KNO3 25°C 0.10M C M 1989IOd (23680)1376
K(CuA+L)=4.61
K(CuAL+L)=3.32

HA=ethanoic acid.

Cu++ gl KNO3 35°C 0.20M U M K1=4.11 B2=7.44 1989PVa (23681)1377
K(CuL2+Val)=7.26
K(CuL2+Phe)=6.98
K(CuL2+Trp)=7.43
K(CuL2+Met)=6.93

K(CuL2+ethionine)=6.71, K(CuL2+His)=8.38

Cu++ gl NaClO4 37°C 0.15M U M 1988NSa (23682)1378
B(CuL(Asn))=12.45
B(CuL2(Asn))=15.61
K(Cu(Asn)+L)=4.56
K(CuL+Asn)=8.24

Cu++ gl KNO3 25°C 0.20M M M K1=3.86 1988SKd (23683)1379
K(Cu(dien)+L)=3.24
K(H+L)=6.82

Cu++ gl NaNO3 37°C 0.15M U K1=4.015 B2=7.550 1983ERa (23684)1380
B3=10.079
B(CuH-2L2)=-8.487
B(Cu2L8)=29.666

Cu++ gl NaNO3 37°C 0.10M U M 1983ERa (23685)1381
B(CuL(Gly))=11.86
B(CuL3(Gly))=18.080
B(CuL(Gly)2)=16.865

Cu++ gl KNO3 25°C 0.50M U K1=4.30 B2=7.85 1983LWa (23686)1382
B3=10.78
B4=12.95
B5=13.60

Cu++ gl NaNO3 25°C 0.10M A M 1982SSa (23687)1383
K(Cu(ATP)+L)=3.53

Cu++ gl NaNO3 25°C 0.10M A M K1=4.21 1982SSa (23688)1384
K(Cu(ATP)+L)=3.53
K(CuA+L)=3.84

A=uridine-5'-triphosphate

Cu++ gl NaClO4 37°C 0.15M U M K1=4.21 B2=7.55 1980NSb (23689)1385
B3=10.73
B4=12.91
B(CuLA)=12.72
B(CuL(His))=13.89

A=histamine (many species reported)

Cu++ gl NaClO4 37°C 0.15M U M 1980NSc (23690)1386
B(CuL(Gly))=11.97
B(CuL2(Gly))=15.91

Cu++ gl NaClO4 37°C 0.15M C K1=4.042 B2= 7.39 1979KBf (23691)1387
B3=10.117
B4=12.163

Cu++ gl NaClO4 25°C 3.00M C I M 1977Sjd (23692)1388
K(CuCl+L)=4.75
K(CuCl+2L)=8.37
K(CuCl+3L)=12.26
K(CuCl2+L)=4.46

K(CuCl2+2L)=8.44

Data from media consisting of mixtures of 3.0M NaClO4+3.0M NaCl

Cu++ gl NaClO4 25°C 0.50M C TIH K1=4.228 B2=7.778 1974LVa (23693)1389
B3=10.721
B4=13.936

Cu++ gl NaClO4 25°C 3.00M U M 1973SJa (23694)1390
K(Cu+HL=CuL+H)=-3.26
K(Cu+2HL=CuL2+2H)=-7.22
K(Cu+3HL=CuL3+3H)=-11.82
K(CuL+H2O=CuLOH+H)=-7.18

K(2CuL+2H2O=Cu2L2(OH)2L2+2H)=-11.37

Cu++ gl NaClO4 25°C 3.00M U I 1972SJa (23695)1391
K(Cu+HL=CuL+H)=-3.25
K(Cu+2HL=CuL2+2H)=-7.18
K(Cu+3HL=CuL3+3H)=-11.79
K(Cu+4HL=CuL4+4H)=-17.0
K(Cu+5HL=CuL5+5H)=-23.96; K(Cu+6HL=CuL6+6H)=-30.17

Cu++ gl NaCl 25°C 3.00M U I 1972SJa (23696)1392
K(Cu+HL=CuL+H)=-3.24
K(Cu+2HL=CuL2+2H)=-7.21
K(Cu+3HL=CuL3+3H)=-11.85
K(Cu+4HL=CuL4+4H)=-17.17
K(Cu+5HL=CuL5+5H)=-23.89; K(Cu+6HL=CuL6+6H)=-30.46

Cu++ gl NaClO4 25°C 3.00M U K1=4.66 B2=8.64 1971SJa (23697)1393
K3=3.30
K4=2.66
K(2Cu+3L=Cu2(OH)2L3+2H)=2.51

Cu++ EMF KNO3 25°C 0.50M U M 1969ZKa (23698)1394
K(CuH2A+L)=4.6

K(CuHA+L)=3.5
K(Cu2A+L)=4.1
K(Cu2AL+L)=3.3

K(Cu2A(OH)+L)=3.6. H2A=N,N'-bis(dimethylaminoethyl)oxamide

Cu++ gl NaClO4 25°C 0.10M U M K1=4.20 1968ISa (23699)1395
K(Cu(NTA)+L)=4.35
K(Cu(NTA)L+L)=-0.65
K(Cu(EDTA)+L)=2.79

Cu++ gl KNO3 25°C 0.16M U T HM K1=4.31 B2=7.84 1966SKc (23700)1396
K3=2.92
K4=2.14
DH(K1)=-30.1 kJ mol⁻¹, DS=-17.6 J K⁻¹ mol⁻¹, DH(K2)=-22.6, DS=-7.5; DH(K3)=-19.2, DS=-9; DH(K4)=-12, DS=-2. Ternary complexes with Gly-Gly. 10-50 C

Cu++ gl KNO3 25°C 0.20M U K1=4.15 B2=7.67 1963CCb (23701)1397

Cu++ gl NaClO4 20°C 0.15M U K1=4.26 B2=7.87 1962HPa (23702)1398
B3=10.73
B4=12.98

Cu++ EMF oth/un 25°C 0.30M U K1=4.33 B2=7.60 1961JWa (23703)1399
K3=2.7
K4=1.9

Method: platinum electrode. Medium: K2S04

Cu++ gl oth/un 25°C 0.16M U K1=4.20 B2=7.62 1958KKc (23704)1400
K3=2.88
K4=2.05

Cu++ gl oth/un 25°C 0.16M U K1=4.33 B2=7.87 1957NGa (23705)1401
K3=2.82
K4=2.03

Cu++ gl KCl 0°C .135M U T K1=4.72 B2=8.62 1955MAb (23706)1402
K3=3.28
K4=2.3

25 C: K1=4.20, K2=3.47, K3=2.84, K4=2.0

Cu++ gl NaNO3 4°C 0.16M U T K1=4.60 B2=8.41 1954EFa (23707)1403
K3=3.09
K4=2.30

22.5 C: K1=4.36, K2=3.57, K3=2.85, K4=2.00

Cu++ vlt KNO3 25°C 0.15M U 1954LWa (23708)1404
B4=12.6

C3H4N2O2 HL Hydantoin CAS 461-72-3 (389)
2,4-Imidazolidinedione;

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

Cu++ gl KNO3 25°C 0.50M U H K1=4.73 B2= 8.36 1979BEc (23940)1405
B3=11.76

By calorimetry: DH(K1)=-18.8 kJ mol⁻¹, DS(K1)=27 J K⁻¹ mol⁻¹;
DH(B2)=-35, DS(B2)=41; DH(B3)=-57.

C3H4N2S L CAS 95-50-4 (821)
2-Aminothiazole; C3H2NS.NH2

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

Cu++ gl KNO3 25°C 0.50M U K1=2.60 B2=4.23 1982GKa (23952)1406

Cu++ gl KNO3 25°C 0.10M U T H K1=2.42 1978BBd (23953)1407
Data for 30, 35 and 40 C. DH(K1)=-18 kJ mol⁻¹, DS(K1)=-15 J K⁻¹ mol⁻¹.

C3H4N5Cl L DEIA CAS 3397-62-4 (7747)
Desethyldeisopropylatrazine;

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

Cu++ vlt alc/w 24°C 5% C K1eff=12.7 1994GOa (23975)1408

Medium: 5% MeOH/H₂O containing Britton-Robinson buffer, pH 6.
Method: DPP with ligand (EDTA) exchange.

C3H4O2 HL Malondialdehyde (4232)
Malondialdehyde; (O:)CH.CH2.CHO

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

Cu++ EMF KCl 25°C 0.10M U K1=3.57 19720Sa (23978)1409

C3H4O2Br2 HL CAS 600-05-5 (2681)
2,3-Dibromopropanoic acid; BrCH2.CH(Br).COOH

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

Cu++ sp NaClO4 25°C 2.00M C K1=0.75 1981TRa (24001)1410

C3H4O2Cl2 HL CAS 75-99-0 (2680)
2,2-Dichloropropanoic acid; CH3.C(Cl)2.COOH

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

Cu++ sp NaClO4 25°C 2.00M C K1=0.81 1981TRa (24002)1411

C3H4O2Cl2 HL CAS 565-64-0 (1316)

2,3-Dichloropropanoic acid; ClCH2.CH(Cl).COOH

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

Cu++ gl NaClO4 20°C 2.00M U K1=1.2 B2=2.2 1981J0a (24004)1412
Spectrophotometry also used.

Cu++ sp NaClO4 25°C 2.00M C K1=0.95 1981TRa (24005)1413

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

Cu++ vlt NaClO4 30°C 0.20M C K1=1.20 1989GMc (24019)1414
Method: polarography. Medium pH 2.5.

Cu++ vlt NaClO4 30°C 1.0M C M B2=3.72 1988GMb (24020)1415
B3=4.68
B(Cu(ox)L)=6.23
K(Cu(ox)L+ox)=3.07
K(Cu(ox)L+L)=1.51
Method: polarography. Medium pH 5.0.

Cu++ kin KCl 25°C 0.10M U K(Cu+HL)=0.5 1985MLc (24021)1416
For the enol form, K(Cu+HL)=3.4

Cu++ gl NaClO4 25°C 0.11M U TIH K1=1.64 1984GMc (24022)1417
Data for 30-50 C. Data for 0.03-0.11 M NaClO4. At I=0.0 M, K1=2.14
DH(K1)=19.9 kJ mol⁻¹, DS(K1)=97.6 J K⁻¹ mol⁻¹.

Cu++ gl NaClO4 25°C 2.00M U K1=1.35 B2=2.05 1980MKb (24023)1418

Cu++ cal NaNO3 25°C 1.00M C H K1=1.59 B2=2.395 1974ARd (24024)1419

Cu++ sp NaClO4 30°C 0.10M U K1=2.11 1969RRa (24025)1420

Cu++ gl oth/un 25°C ->0 U K1=2.2 B2=4.9 1958GHc (24026)1421

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

Cu++ gl NaNO3 25°C 0.10M C M K1=4.82 B2= 8.19 1998KRa (24208)1422
B(CuLA)=9.68
HA: inosine.

Cu++ gl KNO3 35°C 0.10M C M K1=5.05 1997PSb (24209)1423

K(CuL+A)=6.01

H2A is thiamine orthophosphoric acid.

Cu++ vlt oth/un 25°C 0.1M U K1=5.0 1995FFa (24210)1424

Cu++ gl NaClO4 25°C 1.0M C M K1=4.485 B2= 7.52 1994FGa (24211)1425
K(Cu+HL)=1.08
K(CuL+A)=0.6

HA=ethanoic acid

Cu++ gl KNO3 35°C 0.20M C M K1=4.78 1994YVa (24212)1426
B(Cu(P207)L)=11.68
B(Cu(P3010)L)=10.61

Cu++ gl KNO3 25°C 0.10M M M K1=4.788 1993AEa (24213)1427

Cu++ gl NaClO4 25°C 0.20M U M K1=5.13 B2=8.81 1990UBb (24214)1428
Ternary complexes with amino acids

Cu++ ISE NaClO4 25°C 0.10M C K1=4.94 1989COb (24215)1429

Cu++ gl NaClO4 25°C 0.10M U M K1=4.10 1987NDa (24216)1430
K(CuA+B+L)=13.83

H2A=iminodiethanoic acid, H2B=oxydiethanoic acid

Cu++ gl diox/w 30°C 50% U I M 1986EBa (24217)1431
K(CuA+L)=8.81
K(CuC+L)=9.05

A=2,2'-dipyridylamine, C=2,2'-dipyridylketone

Cu++ gl NaClO4 30°C 0.10M M I K1=5.10 B2= 8.47 1985ARc (24218)1432
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=7.41, K2=5.31.

Cu++ gl diox/w 30°C 50% U M K1=8.25 B2=11.88 1984EBa (24219)1433
B(CuLA)=9.54

A=5-nitro-1,10-phenanthroline

Cu++ gl NaClO4 30°C 0.10M C K1=5.26 1984ZXa (24220)1434

Cu++ gl KNO3 25°C 0.10M C M 1983ADa (24221)1435
B(CuHL)=13.3
B(CuHL(DOPA))=21.34

H3A=DOPA

Cu++ vlt KNO3 25°C 1.0M C K1=5.30 B2= 7.33 1983GJb (24222)1436
Method: polarography.

Cu++ gl KNO3 37°C 0.10M C I M K1=5.38 B2= 8.37 1982DRa (24223)1437
B(CuHL)=7.5

B(Cu(gly)L)=12.27. Data for 0.10-1.0 M KNO3. At I=0.0 M, K1=6.11,

B2=9.05, B(CuHL)=8.1, B(Cu(gly)L)=12.97

Cu++ vlt KNO3 25°C 1.0M C M K1=5.30 B2= 7.33 1982GVa (24224)1438
B(Cu(en)L)=15.77

Method: polarography. From potentiometric measurements K(H+L)=5.44
Medium: pH 8.0

Cu++ sp diox/w 30°C 50% U M K1=8.25 B2=11.88 1982PPb (24225)1439

Cu++ gl KNO3 25°C 0.10M U I M K1=4.97 B2=7.7 1981DAc (24226)1440
B(CuL(Gly))=12.05

In 10% PrOH, (K1=5.35, B2=8.43, B(MLGly)=12.48). 20% (5.65, 9.04, 12.75),
35% (6.02, 9.74, 13.30) and 45% (6.24, 10.17, 13.63)

Cu++ gl KNO3 25°C 0.20M U M K1=4.81 B2= 7.47 1981MOd (24227)1441
K(CuA+L)=4.27

A is bis(2-imidazolyl)methane

Cu++ vlt NaClO4 25°C 1.00M U K1=5.04 B2=7.49 1981PLa (24228)1442
B3=7.77

Cu++ gl KNO3 30°C 0.25M M K1=5.10 B2= 7.65 1981RKb (24229)1443
Additional method: polarography.

Cu++ gl NaNO3 30°C 0.20M C M K1=4.97 B2= 7.75 1981RSd (24230)1444
K(Cu(asp)+L)=3.28
B(Cu(asp)L)=12.10

H2asp is aspartic acid.

Cu++ gl NaNO3 30°C 0.20M C M K1=4.97 B2= 7.75 1981RSe (24231)1445
B(Cu(ida)L)=12.73
K(Cu(ida)+L)=2.22

Cu++ gl NaClO4 30°C 0.03M C I K1=5.50 B2= 8.35 1981SJd (24232)1446
Data for 0.03-0.11 M NaClO4. At I=0.11 M, K1=5.10, K2=3.37.
Data for 20-80% v/v dioxane/H2O. At 40% and I=0.03 M, K1=8.12, K2=4.91

Cu++ gl KNO3 25°C 0.10M U M K1=5.06 B2=7.85 1980Gmb (24233)1447
B(CuHL)=7.29
B(CuLA)=14.13
B(CuLA2)=17.9
B(CuHLA)=17.95

A=histamine

Cu++ gl NaClO4 35°C 0.10M U K1=5.11 B2=8.11 1980MPb (24234)1448

Cu++ gl NaClO4 30°C 0.10M U K1=4.86 B2=8.12 1980NSd (24235)1449

Cu++ gl KNO3 30°C 1.00M U K1=5.00 B2=7.35 1980SGd (24236)1450

Cu++ gl KNO3 25°C 0.20M C HM K1=4.81 B2=7.47 1979MBb (24237)1451
K(Cu(bpy)+L)=5.12
DH(K1)=-4.6 kJ mol⁻¹, DH(K2)=-10, DH(Cu(bpy)+L)=-7.5

Cu++ gl KNO3 25°C 0.20M C M K1=4.81 B2= 7.47 1979MBe (24238)1452
Also many ternary complexes

Cu++ gl NaClO4 30°C 0.10M U I M K1=5.10 B2=8.48 1979SJa (24239)1453
K(Cu+HL+HA)=10.05
K(Cu+HL+HB)=8.78
In 20% dioxan: K1=6.07, K2=4.31, K(Cu+HL+HA)=12.16 and K(Cu+HL+HB)=9.75
H2A= 5-Sulphosalicylic acid and H2B= 3,5-Dinitrosalicylic acid

Cu++ gl diox/w 30°C 40% U I M K1=7.41 B2=12.72 1979SJa (24240)1454
K(Cu+HL+HA)=14.82
K(Cu+HL+HB)=12.60
In 20% dioxan: K(Cu+HL+HA)=19.28 and K(Cu+HL+HB)=18.22. 60% dioxan: K1=9.33,
K2=6.64. H2A= 5-Sulphosalicylic acid and H2B= 3,5-Dinitrosalicylic acid

Cu++ gl NaClO4 25°C 0.10M C H K1=5.04 1978GCa (24241)1455
By calorimetry, DH1=5.9 kJ mol⁻¹, DS1=117 J K⁻¹ mol⁻¹

Cu++ gl diox/w 25°C 50% C I K1=8.11 B2=12.58 1978RZa (24242)1456
K3=2.2
Data available for 10 to 50% v/v dioxan/H2O

Cu++ gl alc/w 25°C 25% C I M K1=5.68 B2=9.16 1976DOc (24243)1457
Medium: 25% PrOH/H2O. B(CuL(isopropylmalonate))=9.99. In 50%:K1=6.45,K2=3.85

Cu++ vlt KNO3 28°C 1.50M U K1=4.88 B2=7.10 1975KNa (24244)1458

Cu++ vlt NaClO4 25°C 1.00M U 1975TQa (24245)1459
K(Cu+HL)=1.90
K(Cu+2HL)=2.66

Cu++ gl NaClO4 25°C 0.10M U M 1974SCa (24246)1460
B(Cu(en)L)=14.78
K(CuL+en)=9.68
K(Cu(en)+L)=4.34

en: 1,2-diaminoethane

Cu++ gl NaClO4 25°C 0.10M U M 1974SCa (24247)1461
B(Cu(pn)L)=13.62
K(CuL+pn)=8.52
K(Cu(pn)+L)=3.80

pn: 1,3-diaminopropane

Cu++ gl KNO3 25°C 0.10M C M K1=4.97 B2= 7.67 19730Da (24248)1462
B(Cu(bpy)L)=13.49
K(Cu(bpy)+L)=5.31

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Cu++      sol  KCl      25°C 0.10M U T      K1=5.09      1970GNc (24249)1463
              K(Cu+HL)=0.90
30 C: K1=5.14, K(Cu+HL)=0.98; 40 C: K1=5.28, K(Cu+HL)=1.13
-----
Cu++      gl   NaClO4  25°C 0.10M U   M   K1=5.10      1970GSa (24250)1464
              B(CuL(py))=13.37
-----
Cu++      gl   NaClO4  25°C 0.10M U      K1=5.04      B2=7.58      19700Va (24251)1465
-----
Cu++      gl   NaClO4  25°C 1.00M U   M   K1=4.63      B2=7.66      1969MBb (24252)1466
              B(CuA(py))=7.26
-----
Cu++      gl   KNO3    25°C 0.10M U      K1=5.02      B2=7.94      1969PJb (24253)1467
-----
Cu++      gl   NaClO4  25°C 0.10M U      K1=5.04      B2=7.58      19680Va (24254)1468
              K(Cu+HL)=2.15
-----
Cu++      gl   NaClO4  30°C 0.20M U      K1=4.42      B2=7.20      1967AMa (24255)1469
-----
Cu++      gl   NaClO4  20°C 0.10M U      K1=5.55      1963CAa (24256)1470
              K(Cu+HL)=2.76
-----
Cu++      gl   oth/un  25°C 0.10M U      K1=5.0       1960YYa (24257)1471
-----
Cu++      vlt  oth/un  25°C 1.0M U        B2=7.43      1956GNa (24258)1472
-----
Cu++      vlt  oth/un  25°C 0.10M U      K1=5.81      B2=7.73      1956GNa (24259)1473
-----
Cu++      sp   oth/un  20°C 0.40M U      B2=4.51      1953BBb (24260)1474
-----
Cu++      con  oth/un  25°C ->0 U      K1=5.80      1951PJb (24261)1475
-----
Cu++      EMF  oth/un  25°C 0.04M U      K1=5.55      1949SDa (24262)1476
-----
Cu++      ISE  oth/un  25°C 0.02M U      K1=5.86      1935BJa (24263)1477
-----
Cu++      con  oth/un  25°C ->0 U      K1=5.60      B2=8.15      1935DAa (24264)1478
-----
Cu++      con  none   25°C 0.0 U        K1=5.60      1932MDa (24265)1479
-----
Cu++      con  oth/un  25°C 0.01M U      K1=5.29      1931IRb (24266)1480
-----
Cu++      ISE  oth/un  20°C 0.30M U      B2=7.5       1930RIa (24267)1481
-----
Cu++      con  oth/un  25°C .001M U      K1=5.29      1929RFa (24268)1482
*****
C3H4O5          H2L   Tartronic acid   CAS 80-69-3 (839)
Hydroxypropanedioic acid; HO.CH(COOH)2
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaCl04	20°C	0.10M	U			K1=5.34 K(Cu+HL)=3.62 K(CuH-1L+H)=4.03	1963CAa (24606)	1483

C3H5NO3		H2L						(7332)		
2-Hydroxyiminopropanoic acid; CH3.C(:NOH).COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C	I		B2=18.84 B(CuH2L2)=31.76 B(CuHL2)=29.00 B(Cu2L2)=27.15 B(Cu2H-1L2)=21.64	19950Sa (24662)	1484
B(Cu2H-2L2)=11.67. At I=0.2 M: B(CuHL)=16.16, B2=18.68, B(Cu2L2)=27.78 etc.										

C3H5NO4		H2L		Aminomalonic ac				CAS 1068-84-4 (2980)		
2-Aminopropanedioic acid; HOOC.CH(NH2).COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaCl	25°C	0.10M	U			K1=9.85	1990BCa (24666)	1485

C3H5N3O		L						CAS 140-87-4 (2976)		
Cyanoacetohydrazide; NC.CH2.CO.NH.NH2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	oth/un	20°C	0.10M	U			K1=8.4 B2=15.60	1968ZOa (24673)	1486

Cu++	gl	oth/un	20°C	0.01M	U			K1=8.5 B2=15.6	1956ARd (24674)	1487

C3H5N3S		L						CAS 108-33-8 (1428)		
2-Amino-5-methyl-1,3,4-thiadiazole; C2N2S(NH2)(CH3)										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	U			K1=1.63 B2=2.80	1982GLa (24679)	1488

C3H5N3S		L						CAS 17467-35-5 (1425)		
5-Amino-3-methyl-1,2,4-thiadiazole; C2N2S(NH2)(CH3)										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	U			K1=1.13 B2=1.36	1982GLa (24685)	1489

C3H5OCl		L						CAS 5976-47-6 (2977)		
2-Chloroallyl alcohol; CH2:C(Cl).CH2.OH										

Cu++ sp NaClO4 25°C 2.00M U K1=1.9 B2=3.2 1974JOa (24722)1501

Cu++ gl diox/w 25°C 0.10M U K1=3.13 1969GPb (24723)1502
0.1 M NaClO4 in 50% dioxane/H2O

Cu++ gl diox/w 25°C 50% U K1=3.13 1969SGa (24724)1503
Medium: 50% dioxan, 1.0 NaClO4

C3H5O2F HL (6999)
3-Fluoropropanoic acid;

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

Cu++ gl diox/w 25°C 0.10M U K1=3.00 1969GPb (24740)1504
0.1 M NaClO4 in 50% dioxane/H2O

C3H5O2I HL 3-I-Propionic CAS 141-76-4 (1315)
3-Iodopropanoic acid; I.CH2.CH2.COOH

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

Cu++ gl NaClO4 20°C 2.00M U K1=2.1 B2=3.5 1981JOa (24745)1505
Spectrophotometry also used.

Cu++ gl diox/w 25°C 0.10M U K1=2.99 1969GPb (24746)1506
0.1 M NaClO4 in 50% dioxane/H2O

Cu++ sol oth/un 25°C ->0 U K1=1.91 1951LWa (24747)1507

C3H6N2OS L CAS 591-08-2 (1423)
N-Acetylthiourea;CH3.CO.NH.CS.NH2

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

Cu++ ISE mixed 25°C 82% U K1=8.23 B2=10.15 1979MTc (24762)1508
B3=11.65

Medium: 82% DMSO/H2O

C3H6N2O2 HL (7333)
2-Hydroxyiminopropanamide; CH3.C(:NOH).CONH2

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

Cu++ gl KNO3 25°C 0.10M C I K1=7.87 1995OSa (24774)1509
B(CuH-1L2)=5.66
B(CuH-2L2)=-4.74
B(Cu2H-1L2)=12.30
B(Cu2H-2L2)=5.66

At I=0.2 M: K1=7.82, B(CuH-1L2)=5.42, B(CuH-2L2)=-5.08, B(Cu2H-1L2)=12.98,
B(Cu2H-2L2)=6.00

C3H6N2O2 L D-Cycloserine CAS 68-41-7 (907)
D-4-Amino-1,2-oxazolidine-3-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	U			K1=6.04 B2=10.28 B(CuHL)=10.06	1992BKb	(24781)1510

Ligand as H2L

Cu++	gl	KNO3	25°C	0.50M	U			K1=2.87 B2=5.38 B3=7.52 B4=9.32 B5=10.79	1983Gwa	(24782)1511
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Cu++	gl	KCl	25°C	0.10M	U			K1=3.08 K(Cu+H-1L)=6.29 K(Cu+2H-1L)=10.53	1981BDb	(24783)1512
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Cu++	EMF	oth/un	30°C	dil	U			K1=5.5 B2=10.20	1966NHa	(24784)1513
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Cu++	gl	oth/un	25°C	0.01M	U			B2=9.7	1956NEb	(24785)1514
------	----	--------	------	-------	---	--	--	--------	---------	-------------

C3H6N2O2 L Methylglyoxime CAS 2140-03-6 (2981)
Methylglyoxime; CH3.C(:N.OH).CH:N.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	diox/w	25°C	50%	U			K1=10.5 B2=20.6	1958BPa	(24798)1515

C3H6N2O3 H2L (7445)
2-(Hydroxyimino)propanohydroxamic acid; CH3C(:NOH)CONHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C			B2=22.65 B(CuHL2)=29.91 B(CuH-1L2)=12.16 B(Cu2HL2)=37.13 B(Cu2L2)=31.84	1999DDa	(24820)1516

B(Cu2H-1L2)=26.66

Cu++	gl	KNO3	25°C	0.10M	C			B2=22.65 B(CuHL2)=29.91 B(CuH-1L2)=12.16 B(Cu2HL2)=37.13 B(Cu2L2)=31.84	1998DFa	(24821)1517
------	----	------	------	-------	---	--	--	---	---------	-------------

B(Cu2H-1L2)=26.66

C3H6N4S HL CAS 79035-98-6 (6157)

4-Amino-5-mercapto-3-methy-1,2,4-triazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	30°C	0.10M	U	M		K1=7.93 B2=14.87	1989SRd (24837)	1518

C3H6O		L	Acetone					CAS 67-64-1	(1912)	
Propan-2-one, acetone; CH3.CO.CH3										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	oth/un	27°C	?	U			K1=0.57 B2=-1.83	1963FPa (24851)	1519

C3H6O52		HL	Xanthic acid					CAS 151-01-9	(590)	
(Ethoxy)dithiomethanoic acid; CH3.CH2O.CSSH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	alc/w	25°C	75%	U			B2=9.56	1970BPd (24863)	1520

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
Cu++	oth	NaClO4	25°C	2.0M	U			K1=1.94	1990FTa (24923)	1521
Methods: averaged results from potentiometric, polarographic and spectrophotometric measurements.										

Cu++	gl	KNO3	25°C	0.20M	M	M		K1=2.82	1988SKd (24924)	1522
K(Cu(dien)+L)=2.61										
K(H+L)=4.71										

Cu++	gl	diox/w	25°C	50%	C	M		K1=3.41	1985STb (24925)	1523
K(Cu(phen)+L)=3.51										

Cu++	gl	KNO3	25°C	0.10M	C	M		K1=1.91	1984DHa (24926)	1524
K(Cu(phen)+L)=1.93										

Cu++	sp	NaClO4	20°C	2.00M	U	M		K1=2.23 B2=3.58	1983JOa (24927)	1525
K(Cu(bpy)+L)=2.43										

Cu++	gl	NaClO4	20°C	2.00M	U			K1=2.2 B2=3.6	1981JOa (24928)	1526
B3=4.96										

Spectrophotometry also used.

Cu++	sp	NaClO4	25°C	2.0M	C			K1=1.94 B2= 2.76	1976GFa (24929)	1527
------	----	--------	------	------	---	--	--	------------------	-----------------	------

Cu++	sp	NaClO4	25°C	2.00M	U			K1=2.2 B2=3.6	1974JOa (24930)	1528
------	----	--------	------	-------	---	--	--	---------------	-----------------	------

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-----
Cu++      sp  NaClO4 25°C 2.00M U      K1=2.16      1970GFa (24931)1529
-----
Cu++      sp  alc/w  25°C 100% U      K1=3.32      1970SSf (24932)1530
-----
Cu++      gl  diox/w 25°C 0.10M U      K1=3.45      1969GPb (24933)1531
0.1 M NaClO4 in 50% dioxane/H2O
-----
Cu++      vlt NaClO4 25°C 2.00M U      K1=1.60      B2=2.65      1968FPa (24934)1532
                                B3=2.30
                                B4=2.70
-----

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-----
Cu++      gl  diox/w 25°C 50% U      M  K1=3.45      1968GPd (24935)1533
                                K(Cu(bpy)+L)=3.60
-----

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Medium: 50% dioxan, 0.1 M NaClO4

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-----
Cu++      sp  NaClO4 30°C 0.10M U      K1=2.06      1968RSc (24936)1534
K1=2.60 by alternative method of calculation
-----

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-----
Cu++      sp  oth/un 35°C 1.65M U  I  K1=1.43      1967ADd (24937)1535
K1=1.98(I=0), 1.66(I=0.05)
-----

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-----
Cu++      ISE oth/un 30°C 0.0 U      K1=2.2      B2=3.51      1966AAa (24938)1536
-----

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-----
Cu++      sp  oth/un 30°C 0.10M U      K1=2.3      1965DSa (24939)1537
-----

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```

-----
Cu++      gl  NaClO4 25°C 3.0M U      K1=1.86      B2=3.00      1964PCa (24940)1538
-----

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-----
Cu++      sol oth/un 25°C ->0 U      K1=2.22      1951LWa (24941)1539
*****
C3H6O2S          HL          CAS 2444-37-3 (1074)
(Methylthio)ethanoic acid; CH3.S.CH2.COOH
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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```

Cu++      vlt KNO3  25°C 0.20M C      K1=2.33      1985CEa (25086)1540
Method: differential pulse polarography, using anodically generated Hg++
as indicator ion.
-----

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-----
Cu++      gl  KNO3  30°C 1.00M U      K1=3.4      B2=6.10      19710Ta (25087)1541
-----

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-----
Cu++      gl  NaClO4 25°C 1.00M U      K1=2.40      B2=4.35      1971SAb (25088)1542
                                B3=4.49
-----

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

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

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-----
Cu++      gl  NaClO4 30°C 0.10M U      K1=9.19      B2=17.48      1988NDa (25110)1543
-----

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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
Cu++	gl	NaClO4	25°C	2.00M	U		K1=1.83 B2=2.79 B3=2.74	1976KGa (25246)	1544
Cu++	sp	NaClO4	25°C	2.00M	U		K1=1.76 B2=3.21	1972SSa (25247)	1545
Cu++	sp	NaClO4	30°C	0.10M	U		K1=2.62	1968RSc (25248)	1546
Cu++	sp	oth/un	30°C	0.10M	U		K1=2.05	1965DSa (25249)	1547
Cu++	sol	oth/un	25°C	->0	U		K1=2.92	1951LWa (25250)	1548

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
Cu++	gl	NaClO4	25°C	0.50M	C		K1=2.52 B(Cu2H-1L3)=4.28	1995PLa (25325)	1549
Cu++	gl	KNO3	25°C	0.20M	M	M	K1=1.56 K(Cu(dien)+L)=1.52	1988SKd (25326)	1550
							K(H+L)=3.69		
Cu++	gl	NaClO4	25°C	2.00M	U	H	K1=2.66 B2=4.28 K3=0.61	1978FDa (25327)	1551
Cu++	sol	oth/un	20°C	2.10M	U	M	B(CuL(oxalate))=5.85	1978KUa (25328)	1552
Cu++	gl	NaClO4	25°C	2.00M	U		K1=2.66 B2=4.28 B3=4.89	1976KGa (25329)	1553
Cu++	gl	NaClO4	30°C	0.20M	U		K1=6.50	1975JBb (25330)	1554
Cu++	gl	NaClO4	25°C	1.00M	C		K1=2.54 B2=4.00	1974BJa (25331)	1555
Cu++	sp	KNO3	27°C	1.00M	U		K1=2.26 B2=2.95	1972ADb (25332)	1556
Cu++	sp	NaClO4	25°C	2.00M	U		K1=2.63 B2=4.10 B3=5.27	1972SSa (25333)	1557
Cu++	sol	KCl	25°C	0.10M	U	T	K1=2.36 B2=3.90	1970GNC (25334)	1558
							35 C, K1=2.54, K2=0.90; 45 C, K1=2.77, K2=0.31		

Cu++ oth oth/un 25°C 0.07M U I K1=3.01 1968BVa (25335)1559
Method: circular dichroism. K1=3.40(I=0.05)

Cu++ vlt NaClO4 25°C 2.00M U K1=2.54 B2=4.11 1968FPa (25336)1560
B3=4.48
B4=4.11
B5=4.18

Cu++ sp NaClO4 30°C 0.10M U K1=2.06 B2=2.73 1968RSc (25337)1561

Cu++ gl NaClO4 25°C 1.0M U K1=2.49 B2=3.98 1967TGa (25338)1562
K3=0.3

Cu++ sp oth/un 31°C 0.10M U K1=2.55 1965DSa (25339)1563

Cu++ con oth/un 25°C ? U K1=3.02 B2=4.84 1954EMa (25340)1564

Cu++ sp oth/un 18°C 0.04M U B2=2.70 1953BBa (25341)1565

C3H6O3 HL Methoxyacetic CAS 625-45-6 (29)
Methoxyethanoic acid; CH3.O.CH2.COOH

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

Cu++ sp NaClO4 20°C 2.0M C M K1=2.13 B2= 3.65 1981JOb (25588)1566
K(Cu(bpy)+L)=2.28

Cu++ cal NaNO3 25°C 1.00M U H K1=1.83 B2=2.84 1974ARd (25589)1567

Cu++ gl NaClO4 25°C 3.0M U K1=2.01 B2=3.34 1964PCa (25590)1568

Cu++ ISE NaClO4 20°C 1.00M U K1=1.82 B2=2.81 1961SAa (25591)1569
B3=3.1
B4=2.8

Cu++ gl NaClO4 20°C 1.0M U K1=1.82 B2=2.81 1961SMa (25592)1570
B3=3.11
B4=2.8

C3H6O4 HL Glyceric acid CAS 473-81-4 (2520)
2,3-Dihydroxypropanoic acid; HO.CH2.CH(OH).COOH

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

Cu++ sp NaClO4 25°C 2.00M U K1=2.27 B2=3.51 1975PGa (25618)1571
B3=4.80
B4=5.99

Cu++ sp KNO3 ? 2.00M U K1=2.0 1971APa (25619)1572

Cu++ vlt KNO3 ? 1.00M U K1=2.51 1971APa (25620)1573

Cu++ EMF oth/un ? ? U K1=2.85 1971APa (25621)1574

C3H7NO L DMF CAS 68-12-2 (598)
N,N-Dimethylformamide; HCO.N(CH3)2

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

Cu++ sp non-aq 25°C 100% U HM 1992REb (25644)1575

K(CuA+L)=1.49

Medium: Nitromethane/0.1 M NaClO4. A is 1,4,8,11-Tetramethyl-1,4,8,11-Tetra-azacyclotetradecane. DH=-18.9 kJ mol⁻¹, DS=-34.7 J K⁻¹ mol⁻¹.

Cu++ sol oth/un 25°C ? U M 1968GGb (25645)1576

K(CuCl2+L)=1.06

K(CuCl2+2L)=1.46

C3H7NO2 HL Alanine CAS 56-41-7 (86)
2-Aminopropanoic acid; H2N.CH(CH3).COOH

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

Cu++ gl NaNO3 25°C 0.10M C M K1=8.05 B2=14.70 2004SSa (25833)1577

B(CuH-1L)=0.30

B(CuH-2L)=-10.16

B(CuLA)=13.42

B(CuHLA)=17.63

B(CuH-1LA)=6.20. HA is 6-aminopenicillanic acid.

Cu++ gl alc/w 25°C 40% C K1=9.27 B2=16.45 2003DKa (25834)1578

B(CuHL)=11.56

Medium: 40% v/v EtOH/H2O, 0.10 M NaCl.

Cu++ gl oth/un 25°C 0.10M M M K1=8.13 B2=14.92 2000MOa (25835)1579

B(CuHLA)=26.90

B(CuLA)=19.13

Medium: NaOH. A: 2,2'-Dipicolylamine

Cu++ gl diox/w 25°C 50% M M K1=8.52 B2=16.36 1999HEa (25836)1580

K(CuA+L)=3.99

Medium: 50% v/v dioxane/H2O, 0.1 M NaNO3. H2A: tetracycline.

Cu++ gl alc/w 37°C 40% C M K1=7.74 B2=14.42 1998AAa (25837)1581

B(CuLA)=12.81

K(CuL+A)=5.07

K(CuA+L)=7.16

B(CuLC)=12.63

HC:2[o-hydroxyphenylazo]-2-cyanomethyl benzimidazole. 40% EtOH/H2O, I=0.15

H2A:5-[o-hydroxyphenylazo] barbituric acid. K(CuL+C)=4.89, K(CuC+L)=7.11.

Cu++ gl KNO3 25°C 0.10M C K1=8.209 B2=15.06 1998ZYa (25838)1582

Cu++ gl alc/w 37°C 40% C K1=7.74 B2=14.42 1997AAb (25839)1583
Medium: 40% v/v EtOH/H2O, 0.15 M NaClO4.

Cu++ gl NaNO3 25°C 0.10M U K1=6.90 1997ISd (25840)1584

Cu++ gl KNO3 35°C 0.10M C M K1=8.01 1997PSb (25841)1585
K(CuL+A)=6.07

H2A is thiamine orthophosphoric acid.

Cu++ gl NaNO3 25°C 0.10M M M K1=8.00 B2=14.86 1997SKc (25842)1586
B(CuAL)=13.04
B(CuH-1AL)=5.44

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.20M U T HM K1=8.10 1996JLd (25843)1587
K(Cu(bpy)+L)=7.70

Data for 25-45 C. DH(K1)=-8.8 kJ mol⁻¹, DS(K1)=8.8 J K⁻¹ mol⁻¹;
DH(Cu(bpy)L)=-8.8, DS(Cu(bpy)L)=118.

Cu++ gl diox/w 30°C 50% U K1=9.16 1995PBb (25844)1588
Medium: 50% v/v dioxane/H2O, 0.20 M NaClO4.

Cu++ gl KNO3 25°C 0.10M M M K1=8.33 B2=15.41 1995SHc (25845)1589
K(Cu(ada)+L)=6.15
ada: N-(acetamido)-iminodiethanoic acid. K(H+L)=9.59.

Cu++ gl NaClO4 30°C 0.20M M 1994PBb (25846)1590
K(Cu+HA+L)=15.89
B(Cu(his)L)=17.78
B(Cu2(his)L)=20.09

HA is histidine.

Cu++ gl NaClO4 30°C 0.20M M K1=7.93 B2=14.77 1994PBc (25847)1591

Cu++ gl KNO3 30°C 0.10M U K1=8.15 1994RSa (25848)1592

Cu++ gl NaNO3 25°C 0.0 U T K1=7.82 1993ADb (25849)1593
Extrapolated from data for 0.01-0.10 M NaNO3. Data for 35 and 45 C.

Cu++ gl NaClO4 25°C 0.20M C K1=8.28 1993BAb (25850)1594

Cu++ gl KCl 25°C 0.20M C K1=8.04 B2=14.73 1993FBa (25851)1595

Cu++ gl KNO3 25°C 0.10M C M K1=8.211 B2=15.072 1993M0a (25852)1596
Ternary complexes with ethylenediamine-N-ethanoic acid (B(CuLA)=19.214), and
D,L-2,3-Diaminopropanoic acid (B(CuLA)=17.906)

Cu++ gl NaClO4 25°C 0.20M U T M K1=8.21 B2=15.05 1993PPa (25853)1597
K(CuA+L)=7.88

A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Cu++ gl KCl 25°C 0.10M C TIH R K1=8.14 B2=14.96 1993SKa (25854)1598
IUPAC evaluation. DH(K1)=-22.2 kJ mol⁻¹, DH(B2)=-47.8. All T
At I=0:K1=8.50, B2=15.56; I=1.0:K1=8.17, B2=14.98. 37 C, I=0.15:K1=8.05, B2=14.58

Cu++ gl KNO3 35°C 0.20M C M K1=7.94 1992YKa (25855)1599
B(Cu(edda)L)=18.67
B(Cu(en)L)=17.64
K(Cu(edda)+L)=4.17
K(Cu(en)+L)=9.70

Cu++ gl KNO3 25°C 1.00M C M K1=8.135 B2=14.973 1992Y0a (25856)1600
HA=L-phospho-serine: B(CuLA)=15.318; B(CuL(Ser))=15.158; B(CuL(Tyr))=15.422;
B(CuHL(Tyr))=24.956. HB=L-phospho-tyrosine: B(CuHLB)=20.32, B(CuLB)=15.094

Cu++ gl NaCl 37°C 0.15M U M 1991Hwa (25857)1601
B(CuLA)=12.53
B(CuHLA)=17.35

H2A is 7-oxabicyclo-[2,2,1]-hept-5-ene-2,3-dicarboxylic acid

Cu++ gl NaClO4 25°C 0.20M U M K1=8.13 B2=14.92 1991MBb (25858)1602
B(CuL(catechol))=20.45

Cu++ gl KNO3 25°C 0.10M U K1=8.13 B2=14.92 1990BDa (25859)1603

Cu++ gl KCl 25°C 0.20M C K1=8.082 B2=14.75 1990BMa (25860)1604
Ligand: D-Alanine

Cu++ gl KCl 25°C 0.20M C K1=8.087 B2=14.76 1990BMa (25861)1605
Ligand: L-Alanine

Cu++ gl KCl 25°C 0.16M U K1=8.087 B2=14.761 1990Bmd (25862)1606

Cu++ gl KNO3 25°C 0.10M C H 1990BP a (25863)1607
B(CuL(L-His))=17.80
B(CuHL(L-His))=21.88
B(CuL(D-His))=17.76
B(CuHL(D-His))=21.89

DH(CuL(L-His))=-63.6, DH(CuL(D-His))=-63.3 kJ mol⁻¹.

Cu++ gl NaClO4 30°C 0.20M U K1=9.16 B2=16.16 1990CBb (25864)1608
B(CuL(GlyGly))=14.59
B(CuL(GlyAla))=15.24
B(CuL(GlyLeu))=15.19

Cu++ ISE KNO3 25°C 0.16M C TIH K1=8.290 1990CSd (25865)1609
Method: Cu ion selective electrode. DH(K1)=-17.1 kJ mol⁻¹, DS(K1)=102.

J K-1 mol-1. Data for 35 and 45 C and for 30% and 50% v/v EtOH/H2O.

Cu++ gl KNO3 37°C 0.15M C M K1=7.90 B2=14.53 1990KKc (25866)1610
B(CuL(imidazole))=11.69
B(CuL(imidazole)2)=14.47
B(CuL(imidazole)3)=15.96

Cu++ gl KNO3 37°C 0.15M U M K1=7.90 B2=14.53 1990KKc (25867)1611
B(CuAL)=11.69
B(CuA2L)=14.47
B(CuA3L)=15.96

A: imidazole

Cu++ gl KNO3 35°C 0.10M U K1=8.13 1990RSe (25868)1612

Cu++ gl NaCl 25°C 5.00M C I K1=8.71 B2=15.66 1990TRa (25869)1613
B(CuHL)=11.55
At I=5.0 M NaClO4: B1=9.05, B2=17.00, B(CuHL)=11.79

Cu++ gl NaClO4 25°C 0.20M U M K1=7.93 B2=14.77 1990UBb (25870)1614
K(CuLA)=12.57
K(CuLC)=12.28

H2A=oxalic acid, H2C=malonic acid

Cu++ gl diox/w 25°C 30% C I K1=8.94 B2=16.42 1989LSa (25871)1615
Medium: 30% dioxan/H2O, 0.1 M NaNO3. In 0%, K1=8.22, K2=6.84;
50%, K1=9.51, K2=8.00; 70%, K1=10.16, K2=8.65; 80%, K1=10.56, K2=8.95

Cu++ gl diox/w 25°C 80% C I K1=10.56 B2=19.51 1989LTa (25872)1616
Medium: 80% dioxan/H2O, 0.1 M NaNO3. In 70%, K1=10.16, K2=8.65;
50%, K1=9.51, K2=8.00; 30%, K1=8.94, K2=7.48; 100% H2O, K1=8.22, K2=6.84

Cu++ gl KNO3 25°C 0.20M U M K1=7.83 1988BSc (25873)1617
K(Cu(bpy)+L)=7.42

Cu++ ix NaClO4 27°C 0.50M U K1=6.3 B2=13.50 1987MGa (25874)1618
Many other metal-amino acid stability constants measured using ion exchange.

Cu++ gl KNO3 35°C 0.20M C M T K1=7.94 B2=14.73 1987PMa (25875)1619

Cu++ gl alc/w 30°C 50% U T M K1=8.86 1987RSb (25876)1620
K(CuL+A)=9.21
K(CuL+C)=8.04

Medium: 50% EtOH/H2O, 0.1 M KNO3. HA=N-methylantranilic acid, HC=N-phenyl-antranilic acid

Cu++ gl KNO3 30°C 0.10M U HM K1=8.15 1986DRa (25877)1621
K(CuA+L)=7.40

HA=picolinic acid N-oxide. DH(K1)=-18.2 kJ mol-1, DS=96.0 J K-1 mol-1
DH(CuA+L)=-30.6, DS=42.1

Cu++ gl KNO3 30°C 0.10M U H K1=8.15 1986DRb (25878)1622
Data for 30-50 C. DH(K1)=-18.2 kJ mol⁻¹, D(K1)=-96.0 J K⁻¹ mol⁻¹.

Cu++ ISE KNO3 25°C 0.10M U M K1=8.24 1986DVa (25879)1623
K(CuL+salicylate)=9.47

Cu++ gl KCl 25°C 0.50M C M 1986LEa (25880)1624
B(CuLA)=18.284
HA=1,2-diaminoethane-N-ethanoic acid

Cu++ gl NaCl 37°C 0.15M U M 1986XHa (25881)1625
B(CuL(His))=16.88
B(CuH-1L(His))=6.04

Cu++ cal KNO3 25°C 0.50M C H K1=8.13 B2=14.77 1985AJb (25882)1626
DH(K1)=-26.60 kJ mol⁻¹, DH(B2)=-50.55.

Cu++ gl NaCl 37°C 0.15M U K1=7.876 B2=14.265 1985CFb (25883)1627
B(CuH-1L)=-0.02

Cu++ gl alc/w 25°C 50% U T HM 1985SRc (25884)1628
K(CuA+L)=4.10
A=2-(N,N-diethylaminomethyl)benzimidazole. At 35 C: K=4.56; 45 C: K=4.99.
DH=81 kJ mol⁻¹, DS=348 J K⁻¹ mol⁻¹

Cu++ gl KNO3 25°C 0.10M C M 1985Y0a (25885)1629
B(Cu(phen)L)=17.131
B(Cu(bpy)L)=16.116
B(CuAL)=17.344
B(CuBL)=17.321
B(CuCL)=12.008. A=2-Aminomethyl pyridine, B=Histamine, C=1,2-Diaminobenzene

Cu++ gl NaCl04 37°C 0.15M C M T K1=7.947 B2=14.460 1984BPd (25886)1630
B(CuHL)=10.401
B(CuH-1L2)=2.378
B(CuL(His))=17.000

Cu++ gl KNO3 25°C 0.10M C M K1=8.18 B2=15.01 1984DAb (25887)1631
B(CuLA)=17.38
H2A=Noradrenaline

Cu++ gl KCl 25°C 0.20M C M 1984KDb (25888)1632
K(Cu(Dopamine)+L)=6.84
B(CuHL(Dompamine))=31.06
K(Cu(Adrenaline)+L)=6.67
B(CuHL(Adrenaline))=30.24
K(Cu(Noradrenaline)+L)=6.90, B(CuHL(Noradrenaline))=29.90

Cu++ gl KNO3 25°C 0.10M C H R K1=8.18 B2=14.96 1983ACb (25889)1633

DH(K1)=-22.9; DH(B2)=-50.2 kJ mol⁻¹.

Cu++ vlt KNO3 30°C 0.30M C K1=8.1 B2=14.90 1983APb (25890)1634
Method: polarography. Medium pH 8.0.

Cu++ gl KNO3 30°C 0.10M C T HM K1=8.16 B2=14.98 1983RKa (25891)1635
B(CuAL)=7.04
HA is thiazolidine-4-carboxylic acid. DH(K1)=-21.1 kJ mol⁻¹, DS(K1)=86
J K-1 mol⁻¹; DH(K2)=-29.3, DS(K2)=34; DH(CuAL)=-12.4, DS(CuAL)=94.

Cu++ gl NaClO4 25°C 0.10M C I M K1=8.23 B2=15.05 1983TSa (25892)1636
B(CuLA)=15.22
When I=0.01: K1=8.42, K2=6.95, B(CuLA)=15.57
In 60% dioxan, I=0.01: K1=10.84, K2=8.81, B(CuLA)=20.03. H2A=homocysteic acid

Cu++ gl KCl 25°C 1.0M C 1982NDb (25893)1637
K3=0.57

Cu++ sp diox/w 30°C 50% U M K1=9.01 B2=16.62 1982PPb (25894)1638

Cu++ gl NaClO4 37°C 0.10M U T K1=7.12 B2=12.86 1981NSb (25895)1639

Cu++ gl KNO3 30°C 0.25M M M K1=8.20 B2=14.90 1981Rkb (25896)1640
K(Cu(mal)L)=12.08
Additional method: polarography.

Cu++ gl NaClO4 30°C 0.10M C M T K1=8.09 B2=14.81 1980ASb (25897)1641
Ternary complex with glycyl-sarcosine

Cu++ gl NaClO4 25°C 0.10M U T K1=8.33 B2=15.27 1980FSa (25898)1642

Cu++ gl NaClO4 25°C 0.10M C M 1980FSa (25899)1643
B(Cu(bpy)L)=16.05
K(Cu(bpy)+L)=8.05
B(CuL(phen))=17.17
K(Cu(phen)+L)=7.92

Cu++ gl NaClO4 25°C 0.15M C K1=8.0456 B2=14.819 1980LTa (25900)1644
B(CuH-1L)=0.5602
B(CuH-1L2)=4.2434
B(CuHL)=10.88

Cu++ sp KNO3 30°C 0.25M U M 1980Rka (25901)1645
B(CuL(oxalate))=12.60

Cu++ ISE diox/w 25°C 20% U K1=8.40 B2=15.45 1980YTa (25902)1646

Cu++ gl KNO3 25°C 0.10M C M 1979YSa (25903)1647
B(M(His)L)=17.24

Cu++ gl KCl 25°C 0.20M C M 1977NGa (25904)1648

B(CuH-1LA)=5.17
B(CuH-1LB)=5.12
B(CuH-1LC)=4.84
K(CuH-1L2+A=CuH-1LA+L)=0.71

K(CuH-1L2+B=CuH-1LB+L)=0.50, K(CuH-1L2+C=CuH-1LC+L)=0.72

HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++ gl KCl 25°C 0.20M C 1976NGd (25905)1649

K(CuH-1A2+L=CuH-1AL+A)=5.17
K(CuH-1C2+L=CuH-1CL+C)=5.12
K(CuH-1D2+L=CuH-1DL+D)=4.86

HA is glycylglycine; HC is glycyl-DL-alpha-alanine;
HD is DL-alanyl-DL-alanine.

Cu++ gl NaCl04 30°C 0.20M U K1=8.21 B2=15.05 1975JBb (25906)1650

Cu++ gl KCl 25°C 0.20M C I K1=8.04 B2=14.73 1974GNC (25907)1651
In 50% w/w dioxan/H2O, 0.2 M KCl, K1=9.27, K2=7.46, K(CuL+H)=2.40.

Cu++ gl KCl 25°C 0.20M C I K1=8.04 B2=14.73 1974GNe (25908)1652
In 50% w/w dioxan/H2O, 0.20 M KCl, K1=9.27, K2=7.46, K(CuL+H)=2.44.

Cu++ gl KCl 25°C 0.20M U T K1=8.07 B2=14.79 1973GSb (25909)1653

Cu++ sp oth/un 25°C var U 1973Y0a (25910)1654
K(Cu+CuL2=2CuL)=1.77 pH 5.4

Cu++ nmr alc/w var 50% U H 1973Y0a (25911)1655
K(Cu+CuL2=2CuL)=1.43 pH 5.4

DH=3.8 kJ mol⁻¹, DS=47 J K⁻¹ mol⁻¹.

Cu++ gl KCl 25°C 0.05M U M T K1=8.18 B2=14.99 1972GSc (25912)1656

B(CuL(Thr))=15.23
B(CuHL(Tyr))=15.23
B(CuL(Gly))=15.36
B(CuL(Phe))=15.24

B(CuLA)=15.33, B(CuLB)=15.27. HA=norvaline, HB=a-aminobutanoic acid

Cu++ gl KNO3 25°C 0.10M U M K1=8.15 B2=14.82 1972INa (25913)1657

B(CuL(Val))=15.20
B(CuL(Ser))=14.91

Cu++ cal none 25°C 0.00 U M 1972YIa (25914)1658

B(CuLA)=15.77

HA=aminoisobutanoic acid

Cu++ cal KNO3 25°C 0.10M C H 1971BPi (25915)1659

DH(B1)=-51.5 kJ mol⁻¹, For D-His: DH=-51.7, for rac-His: DH=-51.6

Cu++ gl none 25°C 0.00 U T T K1=8.546 B2=15.48 1971GKa (25916)1660
K1(30 C)=8.474; K2(30 C)=6.830; K1(35 C)=8.437; K2(35 C)=6.795

Cu++ gl KCl 25°C 0.05M U T H T K1=8.174 B2=14.95 1971GKa (25917)1661
K1(35 C)=8.065, K2(35 C)=6.636
DH(K1)=-19.7 kJ mol⁻¹, DH(K2)=-25.1, DS(K1)=92 J K⁻¹ mol⁻¹, DS(K2)=42

Cu++ gl NaClO4 25°C 0.20M U T K1=8.18 B2=15.00 1970CBd (25918)1662

Cu++ gl NaClO4 25°C 0.10M U T K1=8.25 B2=15.30 1970GPa (25919)1663

Cu++ gl NaClO4 25°C 0.10M U M 1970GPa (25920)1664
B(CuL(bpy))=15.99

Cu++ gl KNO3 37°C 0.15M U K1=8.02 B2=14.65 1969CPc (25921)1665
K(Cu+HL)=1.05
K(CuL+HL)=0.46

Cu++ oth oth/un 25°C 0.10M U M K1=7.59 B2=14.76 1968BVa (25922)1666
Method:circular dichroism. Ternary complexes with NTA and salicylic acid

Cu++ gl KNO3 ? 0.20M U 1968GSb (25923)1667
K3=0.76

Cu++ oth NaClO4 25°C 0.50M U T K1=8.21 B2=15.00 1967RPd (25924)1668
Method: optical rotation

Cu++ cal KNO3 22°C 0.10M U H 1967SSl (25925)1669
DH(B2)=-49.7 kJ mol⁻¹, DS=118.7 J K⁻¹ mol⁻¹

Cu++ gl oth/un 40°C 0.0 U T H T K1=8.32 B2=15.08 1966ANb (25926)1670
K1=8.70(10 C),8.54(25 C); K2=7.26(10 C),6.98(25 C). DH(K1)=-21.3 kJ mol⁻¹,
DS=91.1 J K⁻¹ mol⁻¹; DH(K2)=-28.4, DS=37.8

Cu++ cal oth/un 25°C 0.02M U T H 1966ANb (25927)1671
DH(K1)=-22.6 kJ mol⁻¹(10 C),-18.8(25 C),-16.7(40 C); DS=86.9 kJ mol⁻¹,99.5,
105.8(10,25,40 C). DH(K2)=-23.0,-21.7,-23.6; DS=58.1,59.8,53.9(10,25,40 C)

Cu++ gl KCl 20°C 0.10M U T K1=8.22 B2=15.07 1966GIb (25928)1672

Cu++ gl KNO3 20°C 0.37M U T K1=8.17 B2=15.01 1966SWa (25929)1673

Cu++ gl KCl 40°C 0.20M U T H T K1=8.10 B2=14.61 1965SMb (25930)1674
K1=8.40(15 C),8.29(25 C); K2=6.86(15 C),6.72(25 C). DH(K1)=-20.5 kJ mol⁻¹,
DS=87.8 J K⁻¹ mol⁻¹; DH(K2)=-24.2, DS=46

Cu++ oth KNO3 20°C 0.10M U K1=8.5 B2=15.20 1964J0a (25931)1675
Method: paper electrophoresis

Cu++ gl KCl 20°C 0.10M U T K1=8.15 B2=14.93 1963IPa (25932)1676

Cu++ gl oth/un 40°C 0.0 U T H T K1=8.34 B2=15.00 1961IWb (25933)1677
K1=8.95(0 C),8.76(10 C),8.66(20 C),8.56(30 C); K2=7.33(0 C),7.13(10 C),7.02
(20 C),6.9(30 C). DH(K1)=-23.4 kJ mol⁻¹,DS=85 J K⁻¹ m⁻¹,DH(K2)=-25.9,DS=45.6

Cu++ EMF oth/un 25°C 0.30M U T B2=15.0 1961JWa (25934)1678
K3=0.05
Method: platinum electrode. Medium: K2SO4

Cu++ gl oth/un 25°C 3.0M U I K(CuL+H)=0.57 1959CBa (25935)1679
Medium: K2SO4. K=0.72(I=0.375)

Cu++ oth none 25°C 0.0 U B2=15.54 1956CUa (25936)1680

Cu++ gl oth/un 25°C 0.01M U B2=15.1 1956NEb (25937)1681

Cu++ gl oth/un 25°C ->0 U T K1=8.51 B2=15.37 1951M0a (25938)1682

Cu++ gl oth/un 25°C 0.01M U B2=15.10 1950ALa (25939)1683

Cu++ vlt oth/un 25°C 0.10M U B2=14.82 1950Lda (25940)1684

Cu++ gl oth/un 25°C 0.01M U K1=8.16 B2=14.81 1950MMa (25941)1685

Cu++ sol oth/un 25°C ->0 U T K1=8.40 B2=15.76 1948KEa (25942)1686

Cu++ vlt KNO3 25°C 0.10M U T B2=15.01 1946KEa (25943)1687

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

Cu++ gl alc/w 30°C 40% C M K1=8.20 1997RRd (26361)1688
K(CuA+L)=7.47

Medium: 40% v/v EtOH/H2O, 0.10 M KNO3.
HA is 2-(phenylhydrazono)butanoic acid

Cu++ gl alc/w 30°C 40% M K1=8.86 B2=16.00 1993RRd (26362)1689
Medium: 40% v/v EtOH/H2O, 0.10 M KNO3.

Cu++ gl KCl 25°C 0.10M C TIH T K1=6.99 B2=12.45 1993SKa (26363)1690
IUPAC evaluation. DH(B2)=-45.6 kJ mol⁻¹(T)

Cu++ gl none 30°C 0 M K1=7.28 B2=13.15 1990NKb (26364)1691
Data also for many N-alkyl substituted analogues of beta-alanine

Cu++ gl NaClO4 25°C 0.20M U M K1=6.71 B2=12.25 1990UBb (26365)1692
K(CuLA)=10.76

H2A=oxalic acid, H2C=malonic acid

 Cu++ gl diox/w 30°C 50% U I M 1986EBa (26366)1693
 K(CuA+L)=6.76
 K(CuC+L)=7.89
 A=2,2'-dipyridylamine, C=2,2'-dipyridylketone

 Cu++ gl NaClO4 25°C 0.50M C T K1=6.902 B2=12.317 1986GGa (26367)1694
 B(CuH-1L)=-0.52
 B(CuH-1L2)=-1.88

 Cu++ gl alc/w 25°C 50% U T HM 1985SRc (26368)1695
 K(CuA+L)=4.41
 A=2-(N,N-diethylaminomethyl)benzimidazole. At 35 C: K=4.74; 45 C: K=5.05.
 DH=58 kJ mol-1, DS=279 J K-1 mol-1

 Cu++ oth NaNO3 35°C 0.10M U M 1985Vsa (26369)1696
 K(Cu(NTA)+L)=5.20
 By electrophoresis

 Cu++ gl diox/w 30°C 50% U M K1=8.22 B2=14.09 1984EBa (26370)1697
 B(CuLA)=7.28
 A=5-nitro-1,10-phenanthroline

 Cu++ vlt KNO3 30°C 0.30M C K1=7.2 B2=12.40 1983APb (26371)1698
 Method: polarography. Medium pH 8.5.

 Cu++ gl KCl 25°C 1.0M C K1=11.85 B2=18.50 1982NDb (26372)1699
 K3=3.0
 K(Cu+OH+L)=13.07

 Cu++ gl KNO3 30°C 0.25M M M K1=7.10 B2=12.69 1981RKb (26373)1700
 K(Cu(mal)L)=10.95

 Cu++ gl NaNO3 30°C 0.20M C M K1=7.04 B2=12.58 1981RSd (26374)1701
 K(Cu(asp)+L)=5.96
 B(Cu(asp)L)=14.78
 H2asp is aspartic acid.

 Cu++ gl NaNO3 30°C 0.20M C M K1=7.04 B2=12.58 1981RSe (26375)1702
 B(Cu(ida)L)=15.42
 K(Cu(ida)+L)=4.91

 Cu++ gl NaClO4 30°C 0.10M C M T K1=7.10 B2=12.50 1980ASb (26376)1703
 ternary complex with glycyl-sarcosine

 Cu++ sp KNO3 30°C 0.25M U M 1980Rka (26377)1704
 B(CuL(oxalate))=11.72

Cu++ gl NaNO3 20°C 0.10M U K1=7.04 B2=12.54 1978LEb (26378)1705

Cu++ gl KCl 25°C 0.20M C 1976NGd (26379)1706

K(CuH-1A2+L=CuH-1AL+A)=4.96

K(CuH-1C2+L=CuH-1CL+C)=5.02

K(CuH-1D2+L=CuH-1DL+D)=4.74

HA is glycylglycine; HC is glycyl-DL-alpha-alanine;

HD is DL-alanyl-DL-alanine.

Cu++ gl NaClO4 25°C 0.10M U M 1974SCa (26380)1707

B(Cu(en)L)=16.58

K(CuL+en)=9.51

K(Cu(en)+L)=6.14

en: 1,2-diaminoethane

Cu++ gl NaClO4 25°C 0.10M U M 1974SCa (26381)1708

B(Cu(pn)L)=13.62

K(CuL+pn)=8.52

K(Cu(pn)+L)=3.80

pn: 1,3-diaminopropane

Cu++ sp oth/un 25°C var U 1973Y0a (26382)1709

K(Cu+CuL2=2CuL)=1.36 pH 5.8

Cu++ nmr alc/w 25°C 50% U H 1973Y0a (26383)1710

K(Cu+CuL2=2CuL)=1.40 pH 5.8

DH=-0.5 kJ mol⁻¹, DS=25 J K⁻¹ mol⁻¹

Cu++ gl NaClO4 25°C 0.10M U M K1=7.07 B2=12.68 1971SHa (26384)1711

B(CuL(bpy))=14.48

Cu++ gl NaClO4 25°C 0.20M U K1=7.69 B2=13.88 1970CBd (26385)1712

Cu++ gl KNO3 25°C 0.10M U T K1=6.99 1969YHa (26386)1713

Cu++ gl KNO3 ? 0.20M U 1968GSb (26387)1714

K3=1.46

Cu++ cal KNO3 22°C 0.10M U HM 1967SSl (26388)1715

DH(B2)=-45.6 kJ mol⁻¹, DS=84.9 J K⁻¹ mol⁻¹. Ternary complexes with NTA

Cu++ gl KCl 40°C 0.20M U T H T K1=6.93 B2=12.15 1965SMb (26389)1716

K1=7.16(15 C),7.10(25 C); K2=5.59(15 C),5.40(25 C). DH(K1)=-16.7 kJ mol⁻¹,

DS=83.6 J K⁻¹ mol⁻¹; DH(K2)=-25.1, DS=16.7

Cu++ sp oth/un 25°C 3.0M U I K1=6.55 B2=12.60 1956CUa (26390)1717

K(Cu+HL)=1.20

K(Cu+2HL)=2.31

K(Cu+HL+L)=7.66

I=0.375: K1=7.34, K2=5.48, K(Cu+HL)=1.71+=1.20, K(Cu+HL+H)=7.96

At I=0 corr: K1=7.68, K2=5.84

Cu++ gl KCl 20°C 0.10M U T K1=7.13 B2=12.60 1954IRa (26391)1718

Cu++ vlt oth/un 25°C 0.10M U T B2=12.89 1954Lda (26392)1719
Medium: KH2PO4

Cu++ gl oth/un 20°C 0.01M U B2=12.9 1950ALa (26393)1720

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

Cu++ gl alc/w 30°C 40% M M K1=9.51 B2=16.55 1988ARb (26515)1721
K(CuA+L)=8.46
B(CuAL)=17.96

Medium: 40% EtOH/H2O, 0.05 M KNO3. HA=acetylacetone

Cu++ sp NaCl 20°C 0.15M U M 1983Vda (26516)1722
K(CuA+L)=6.64

H2A=orotic acid (C5H4N2O4), 2,4-(1H,3H)-pyrimidinedione-6-carboxylic acid

Cu++ gl NaClO4 37°C 0.15M U K1=8.16 B2=15.03 1981NSb (26517)1723

Cu++ gl NaNO3 30°C 0.20M C M K1=8.12 B2=14.83 1981RSd (26518)1724
K(Cu(asp)+L)=6.68
B(Cu(asp)L)=15.50

H2asp is aspartic acid.

Cu++ gl KCl 25°C 0.20M C M 1979KGa (26519)1725
B(CuHLA)=31.06
B(CuLA)=20.62

H2A=dopamine.

Cu++ gl diox/w 25°C 25% U K1=8.45 B2=15.33 1977GKa (26520)1726
In 35%: K1=8.74, B2=15.87; 50%:9.27, 16.73; 65%:9.64, 17.33; 0%:8.07, 14.79

Cu++ gl alc/w 25°C 20% U K1=8.34 B2=15.32 1977GKa (26521)1727
In 40% MeOH/H2O: K1=8.76, B2=15.95; 60%:9.17, 16.63; 75%:9.47, 17.13;
0%: 8.07, 14.79

C3H7NO2 L Methylglycinate CAS 616-34-3 (1738)
Glycine methyl ester; NH2.CH2.COOCH3

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

Cu++ gl NaNO3 25°C 0.10M M M 1997SKc (26550)1728
K(CuH-1A+L)=2.65

HA is glycyL-DL-leucine.

 Cu++ gl oth/un 25°C 0.15M U K1=3.84 1956Wmb (26551)1729

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	oth/un	25°C	0.10M	M	M		K1=7.94 B2=14.59 B(CuHLA)=25.64 B(CuLA)=18.46	2000MOa (26574)	1730

Medium: NaOH. A: 2,2'-Dipicolylamine.

Cu++	gl	NaClO4	21°C	0.10M	M			K1=7.83 B2=14.57 B(CuHL)=11.49 B(CuH-1L)=-0.31	1985LWb (26575)	1731
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Values in 50% methanol-water (v/v) are also given.

Cu++	gl	KCl	25°C	1.0M	U			K1=7.80 B2=14.24 K3=13.78 B(CuH-1L2)=2.94	1983DPa (26576)	1732
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Cu++	gl	KNO3	25°C	0.10M	C	M		K1=7.68 B2=14.16 B(CuL(Gly))=14.94 B(CuL(Thr))=14.70	1977DOa (26577)	1733
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Cu++	gl	KNO3	25°C	0.10M	U	M		K(CuA+L)=5.73	1972IVc (26578)	1734
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H2A=methyliminodiethanoic acid

Cu++	gl	oth/un	30°C	0.0	U	T H		K1=8.12 B2=14.88	1964ICa (26579)	1735
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At 20 °, K1=8.16, K2=6.89, By calorimetry:(25 C): DH(K1)=-19.2 kJ mol⁻¹
 DS=92.0 J K⁻¹ mol⁻¹; DH(K2)=-22.6, DS=54.3

Cu++	gl	oth/un	25°C	1.0M	U	I		K1=7.84 B2=14.34	1960KFb (26580)	1736
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When I=0.015 M: K1=8.08, K2=6.70

Cu++	gl	oth/un	25°C	0.01M	U			K1=7.83 B2=14.44	1959DLc (26581)	1737
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Cu++	gl	NaClO4	25°C	0.10M	U			K1=7.94 B2=14.59	1954BCb (26582)	1738
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 C3H7NO2 HL (6927)
 N-Methylacetohydroxamic acid; CH3.CO.N(OH)CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	C	M		B(Cu(en)L)=17.07 B(Cu(bpy)L)=16.67 B(Cu(gly)L)=14.36	2000FEa (26613)	1739

B(Cu(dien)L)=19.30

K(Cu(terpyridine)+L)=3.89.

Cu++ gl KCl 25°C 0.20M C K1=7.40 B2=13.30 2000FEc (26614)1740

Cu++ sp NaClO4 25°C 2.0M C 1999BGa (26615)1741

K(Cu+HL=CuL+H)=-0.801

C3H7NO2 HL (7502)

Propanohydroxamic acid; C2H5CONHOH

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

Cu++ gl KCl 25°C 0.20M C K1=7.889 B2=14.32 2000FEc (26627)1742

B(CuH-1L2)=5.32

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

Cu++ gl NaClO4 20°C 0.15M U 1963HPa (26691)1743

K(Cu+HL)=7.00

K(Cu+2HL)=13.72

B(Cu2L)=14.00

K(2Cu+L+HL)=21.33

B(Cu2L2)=28.05, K(2Cu+2HL+L)=28.05

Cu++ vlt oth/un 25°C 0.17M U B2=16.0 1961KPa (26692)1744

Medium: phosphate buffer

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

Cu++ gl NaNO3 25°C 0.10M C M K1=7.87 B2=14.28 2004SSa (26950)1745

B(CuH-1L)=1.08

B(CuH-2L)=-9.31

B(CuLA)=12.13

B(CuHLA)=16.75

B(CuH-1LA)=5.20. HA is 6-aminopenicillanic acid.

Cu++ gl alc/w 25°C 40% C K1=9.42 B2=16.42 2003DKa (26951)1746

B(CuHL)=12.12

Medium: 40% v/v EtOH/H2O, 0.10 M NaCl.

Cu++ gl NaNO3 25°C 0.10M M M K1=8.38 B2=15.45 2002SKa (26952)1747

B(CuH-1L)=0.50

B(CuAL)=17.53

B(CuAH-1L)=8.09

A is picolyamine

Cu++ gl oth/un 25°C 0.10M M M K1=7.89 B2=14.48 2000M0a (26953)1748
B(CuLA)=18.27

Medium: NaOH. A: 2,2'-Dipicolyamine.

Cu++ gl KNO3 25°C 0.10M C M K1=7.23 1999AAa (26954)1749
K(CuL+A)=3.98
B(CuLA)=11.21
K(CuL+B)=3.54
B(CuLB)=10.77

K(CuL+C)=3.68, B(CuLC)=10.91, K(CuL+D)=3.46, B(CuLD)=10.69.
HA=MOPSO, HB=MOPS, HC=DIPSO, HD=TAPSO.

Cu++ gl diox/w 25°C 50% M M K1=8.40 B2=16.30 1999HEa (26955)1750
K(CuA+L)=3.90

Medium: 50% v/v dioxane/H2O, 0.1 M NaNO3. H2A: tetracycline.

Cu++ gl KNO3 25°C 0.10M U M K1=7.95 B2=14.52 1998SYa (26956)1751
B(CuAL)=11.37
B(CuH-1AL)=4.86

HA is 2,3,4-trihydroxybutanoic acid (threonic acid).

Cu++ gl KNO3 25°C 0.10M U M 1997LZa (26957)1752
B(CuLA)=22.56
B(CuHLA)=27.93

Data for 3-methoxybenzyl, 5-Br-2-hydroxybenzyl & 3,5-diBr-2-hydroxybenzyl.
HA=6-(2'-Hydroxybenzyl)-1,4,8,11-tetraazacyclotetradecane-5,7-dione.

Cu++ gl NaNO3 25°C 0.10M M M K1=8.03 B2=14.65 1997SKc (26958)1753
B(CuAL)=13.39
B(CuH-1AL)=5.69

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.10M M M K1=8.16 1996AEa (26959)1754
Data for ternary complexes with dipicolinic acid.

Cu++ gl KNO3 25°C 0.10M C TI R K1=7.90 B2=14.49 1995BEa (26960)1755
IUPAC evaluation. I=0.05 M: K1=7.93, B2=14.57

Cu++ gl KNO3 35°C 0.20M C M K1=7.80 B2=14.54 1994YVa (26961)1756
B(Cu(P207)L)=15.32
B(Cu(P3010)L)=14.25

Cu++ gl NaCl 37°C 0.15M C M T K1=7.748 B2=14.083 1993BAa (26962)1757
B(CuHL)=10.03
B(CuH-1L2)=4.29
B(CuL(His))=16.97
B(CuHL(His))=20.87

$B(\text{CuL}(\text{His})_2)=19.97$, $B(\text{CuHL}(\text{His})_2)=28.44$

Cu++ gl NaClO4 25°C 0.20M U T M K1=8.33 B2=15.29 1993PPa (26963)1758
K(CuA+L)=7.41

A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Cu++ gl KNO3 35°C 0.20M C M K1=7.80 1992YKa (26964)1759
B(Cu(edda)L)=18.63
B(Cu(en)L)=17.25
K(Cu(edda)+L)=4.13
B(Cu(en)+L)=9.45

Cu++ gl KNO3 25°C 1.00M C M K1=7.821 B2=14.428 1992Y0a (26965)1760
B(CuL(Ala))=15.158
B(CuL(Arg))=14.645
B(CuHL(Lys))=25.486

Cu++ ISE KNO3 25°C 0.16M C TIH K1=7.991 1990CSd (26966)1761
Method: Cu ion selective electrode. $\text{DH}(K1)=-15.7 \text{ kJ mol}^{-1}$, $\text{DS}(K1)=100$.
 $\text{J K}^{-1} \text{ mol}^{-1}$. Data for 35 and 45 C and for 30% and 50% v/v EtOH/H2O.

Cu++ gl KNO3 25°C 0.10M U I K1=8.08 B2=13.31 1990RAb (26967)1762
Data also for 10% w/w EtOH/H2O ($K1=8.38$; $B2=14.25$) and 25% (8,77; 15.31)

Cu++ gl NaClO4 25°C 3.00M M K1=8.55 B2=16.02 1988BFa (26968)1763
B(CuHL)=10.90

Cu++ gl NaClO4 25°C 0.10M C M K1=7.95 B2=14.52 1988CLa (26969)1764
B(CuL(acetylglycinate))=10.30

Cu++ cal NaClO4 25°C 0.10M C H 1988LGa (26970)1765
 $\text{DH}(K1)=-26.1 \text{ kJ mol}^{-1}$, $\text{DH}(K2)=-27.3 \text{ kJ mol}^{-1}$. For HA=N-acetylglycine,
 $\text{DH}(B(\text{CuAL}))=-24.2 \text{ kJ mol}^{-1}$, $\text{DS}(B(\text{CuAL}))=116 \text{ J K}^{-1} \text{ mol}^{-1}$.

Cu++ EMF NaClO4 25°C 3.00M C K1=8.55 B2=16.02 1987BFb (26971)1766
B(CuHL)=10.90

Cu++ gl KCl 25°C 0.20M C H K1=7.81 B2=14.24 1987KSa (26972)1767
B(CuH-1L2)=4.09
B(CuH-2L2)=-7.06
 $\text{DH}(K1)=-22.6 \text{ kJ mol}^{-1}$, $\text{DS}=74 \text{ J K}^{-1} \text{ mol}^{-1}$; $\text{DH}(B2)=-52.1$, $\text{DS}=98$

Cu++ gl NaClO4 37°C 0.15M U M K1=7.84 B2=14.29 1987SNc (26973)1768
B(CuL(Asn))=16.72
K(Cu(Asn)+L)=8.83
K(CuL+Asn)=8.88

Cu++ gl NaCl 25°C 0.25M C K1=7.781 B2=14.295 1984A0a (26974)1769

Cu++ ISE KNO3 25°C 0.10M C M K1=8.11 B2=14.69 1984PDb (26975)1770

K(Cu(nta)+L)=4.96

Method: Cu ion selective electrode.

Cu++ sp NaCl 20°C 0.15M U M 1983VDa (26976)1771

K(CuA+L)=6.49

H2A=orotic acid (C5H4N2O4), 2,4-(1H,3H)-pyrimidinedione-6-carboxylic acid

Cu++ gl NaClO4 37°C 0.15M C K1=8.034 B2=14.36 1982BKc (26977)1772

B(CuH-1L2)=4.832

B(CuHL)=10.645

Cu++ gl KNO3 30°C 0.25M M M K1=7.56 B2=14.01 1981RKb (26978)1773

K(Cu(mal)L)=11.41

Additional method: polarography.

Cu++ gl NaNO3 30°C 0.20M C M K1=7.84 B2=14.31 1981RSd (26979)1774

K(Cu(asp)+L)=6.48

B(Cu(asp)L)=15.30

H2asp is aspartic acid.

Cu++ gl NaNO3 30°C 0.20M C M K1=7.84 B2=14.31 1981RSe (26980)1775

B(Cu(ida)L)=15.86

K(Cu(ida)+L)=5.35

Cu++ gl KNO3 25°C 0.10M U K1=7.92 B2=14.73 1981SHd (26981)1776

B(CuH-1L2)=4.37

B(CuH-2L2)=-6.77

*K(CuL2)=-10.35

Cu++ gl NaClO4 30°C 0.10M C M K1=7.85 B2=14.43 1980ASb (26982)1777

ternary complex with glycyl-sarcosine

Cu++ sp KNO3 30°C 0.25M U M 1980RKa (26983)1778

B(CuL(oxalate))=11.99

Cu++ vlt NaClO4 30°C 0.10M C B2=14.9 1980RSd (26984)1779

B3=18.26

Method: polarography.

Cu++ ISE diox/w 25°C 20% U K1=8.14 B2=14.98 1980YTa (26985)1780

Cu++ vlt KNO3 25°C 0.50M U T H K1=7.88 B2=15.50 1979SSc (26986)1781

Cu++ gl KNO3 25°C 0.10M C M 1979YSa (26987)1782

B(Cu(His)L)=17.09

Cu++ gl KNO3 25°C 0.10M U M T K1=7.858 B2=14.428 1977BPa (26988)1783

B(CuL(His))=17.20

Cu++ gl KCl 25°C 0.20M C M 1977NGa (26989)1784

B(CuH-1LA)=4.94
B(CuH-1LB)=5.07
B(CuH-1LC)=4.86
K(CuH-1L2+A=CuH-1LA+L)=0.48

K(CuH-1L2+B=CuH-1LB+L)=0.44, K(CuH-1L2+C=CuH-1LC+L)=0.73
HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++ gl KCl 25°C 0.20M C 1976NGd (26990)1785
K(CuH-1A2+L=CuH-1AL+A)=4.94
K(CuH-1C2+L=CuH-1CL+C)=5.07
K(CuH-1D2+L=CuH-1DL+D)=4.86

HA is glycylglycine; HC is glycyl-DL-alpha-alanine;
HD is DL-alanyl-DL-alanine.

Cu++ gl KNO3 25°C 0.10M C H T K1=7.86 B2=14.43 1976PSa (26991)1786
Stereoselectivity in DH, not in K. DH(CuL2)=-53.6 kJ mol⁻¹ (DL-Ser=-52.8)

Cu++ gl KNO3 25°C 1.00M U 1975JPa (26992)1787
K(CuHL2+H)=10.03
K(CuL2+H)=10.95

Cu++ gl NaCl 25°C 0.15M U M K1=8.01 B2=14.59 1973KSb (26993)1788
B(Cu+2L=CuH-1L2+H)=4.77
B(CuL(His))=17.54
B(CuHL(His))=21.70
K(Cu+2L=CuH-2L2+2H)=-6.18, K(Cu+L+His=CuH-1L(His)+H)=6.90

Cu++ gl KNO3 37°C 0.15M U M K1=7.57 B2=14.01 1973SKb (26994)1789
B(CuL(en))=16.87
B(CuLA)=16.27

A=histamine

Cu++ gl NaCl04 25°C 3.00M U K1=8.95 B2=16.23 1973WIa (26995)1790

Cu++ sp oth/un 25°C var U 1973Y0a (26996)1791
K(Cu+CuL2=2CuL)=1.50 pH 5.3

Cu++ nmr alc/w var 50% U H 1973Y0a (26997)1792
K(Cu+CuL2=2CuL)=1.36 pH 5.3

DH=1.6 kJ mol⁻¹, DS=34 J K⁻¹ mol⁻¹

Cu++ gl KCl 25°C 0.05M U T T K1=7.93 B2=14.48 1972GMb (26998)1793
K1(20 C)=7.97, K2=6.65; K1(30 C)=7.88, K2=6.49; K1(35 C)=7.80, K2=6.39

Cu++ gl KCl 25°C 0.05M U M T K1=7.93 B2=14.57 1972GSc (26999)1794
B(CuL(Thr))=14.95
K(Cu+L+HTyr)=14.96
B(CuL(Gly))=15.10

K(CuL(Ala))=15.12, K(CuL(Phe))=15.00, K(CuLA)=15.06, K(CuLB)=15.13
HA=a-aminobutanoic acid, HB=norvaline


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-----
Cu++      gl  KNO3   25°C 0.10M U      K1=7.92  B2=14.57  1972INa (27000)1795
-----
Cu++      sp  oth/un  ?      ?  U      K1=8.1   B2=15.04  1972JPa (27001)1796
-----
Cu++      cal KCl    25°C 0.05M U  H  T  K1=7.93  B2=14.67  1971GNa (27002)1797
DH(K1)=-230.1 kJ mol-1, DH(K2)=-180.7, DS(K1)=75 J K-1 mol-1, DS(K2)=38
-----
Cu++      gl  oth/un  25°C 0.16M U      K1=7.85  B2=14.50  1970Lba (27003)1798
-----
Cu++      gl  KNO3   40°C 0.20M U  T  H  K1=7.73  B2=14.06  1968RMb (27004)1799
K1=8.02(15 C),7.89(25 C); K2=6.62(15 C),6.51(25 C)
DH(B2)=-40.1 kJ mol-1, DS=142.1 J K-1 mol-1
-----
Cu++      gl  KNO3   37°C 0.15M U  M  K1=7.565 B2=14.012 1967PSc (27005)1800
K(CuA+L)=6.41
K(Cu(en)+L)=6.70
K(CuB+L)=6.94

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H2A=salicylic acid, B=histamine

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-----
Cu++      cal KNO3   22°C 0.10M U  H      1967SS1 (27006)1801
DH(B2)=-58.9 kJ mol-1, DS=79.4 J K-1 mol-1
-----
Cu++      gl  oth/un  25°C 0.10M U  I      K1=7.57  B2=13.32  1964SYa (27007)1802
I=0 M: K1=8.40,K2=6.10; I=0.01: K1=8.20,K2=6.06; I=0.02: K1=8.0,K2=6.02;
I=0.05: K1=7.65,K2=5.85
-----
Cu++      vlt oth/un  25°C 0.10M U      B2=14.54  1952Lda (27008)1803
-----
Cu++      gl  oth/un  20°C 0.01M U      B2=14.60  1950ALa (27009)1804
*****
C3H7NO3      HL      CAS 2786-22-3 (1893)
2-Aminooxypropanoic acid;CH3.CH(O.NH2).COOH
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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-----
Cu++      gl  KNO3   25°C 0.50M U      K1=4.88  1985WTa (27206)1805
-----
Cu++      gl  KNO3   30°C 0.20M M      K1=6.44  B2=11.96  1984JMa (27207)1806
*****
C3H7NO3      HL      iso-Serine      CAS 632-12-2 (351)
DL-3-Amino-2-hydroxypropanoic acid; H2N.CH2.CH(OH).COOH
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Cu++      gl  KCl    25°C 0.20M C  H      K1=6.42  1987KSa (27219)1807
B(CuHL)=10.92
B(Cu2H-2L2)=8.13
B(CuH-2L2)=-6.50
DH(K1)=-23.1 kJ mol-1, DS=45 J K-1 mol-1; DH(Cu2H-2L2)=-28.3, DS=76
-----

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 Cu++ cal KCl 25°C 0.10M U H 1980BDb (27220)1808
 B(CuH2L)=24.120
 B(Cu2L2)=34.568
 DH(CuH2L)=-53.43 kJ mol⁻¹, DH(Cu2L2)=-118.40.

Cu++ gl KCl 25°C 0.10M U B2=19.462 1976BMe (27221)1809
 B(CuH2L)=24.120
 B(Cu2L2)=34.568
 K(Cu+L=CuH-1L+H)=3.169

Cu++ gl oth/un 25°C 0.16M U K1=7.31 B2=14.37 1970LBa (27222)1810

 C3H7NO3 HL CAS 13782-57-5 (4235)
 N-Hydroxy-beta-alanine; HO.NH.CH2.CH2.COOH

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

 Cu++ gl KCl 25°C 0.20M C K1=12.85 1991KFa (27235)1811
 B(Cu5H-4L4)=46.66

 C3H7NO5S H2L Cysteic acid CAS 23537-25-9 (2603)
 2-Amino-3-sulfonatopropanoic acid; HO3S.CH2.CH(NH2).COOH

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

Cu++ gl NaClO4 37°C 0.15M U K1=8.60 B2=14.58 1997NAb (27240)1812

Cu++ gl KNO3 25°C 0.50M U K1=7.90 B2=14.00 1979DZb (27241)1813

 C3H7NS2 HL CAS 128-04-1 (2125)
 Dimethyldithiocarbamic acid; (CH3)2N.CSSH

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

Cu++ EMF non-aq 25°C 100% U B2=17.6 1987USa (27263)1814
 Medium: DMF, 0.1 M LiClO4

Cu++ sp alc/w 20°C 52% U I K1=13.2 B2=25.70 1957JAa (27264)1815
 Medium: 51.7% EtOH. in 75% EtOH: K1=14.4, K2=13.4. In 89%: K1=15.4, K2=14.1.
 In aqueous: K1=11.4, K2=10.3

Cu++ sp alc/w 20°C 89% U I K1=15.4 B2=29.50 1956JAa (27265)1816
 Medium: 89% EtOH, 0.01 M NaOH. K1=11.4(0%), 13.2(51.7%), 14.4(75%);
 K2=10.3(0%), 12.5(51.7%), 13.3(75%)

 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

 Cu++ gl KNO3 25°C 0.10M M M K1=7.69 B2=15.25 2003DFa (27282)1817
 B(CuH2L)=20.90
 B(CuH-1L)=-0.27
 B(Cu2H-2L2)=3.77
 B(CuLA)=16.39
 B(CuHLA)=25.85, B(CuH2LA)=32.42, B(CuBL)=17.82, B(CuHBL)=25.46,
 B(CuH-1BL)=7.24. H2A is glutamic acid, H2B is aspartic acid.

Cu++ gl KNO3 25°C 0.10M M M 2003DFa (27283)1818
 B(Cu(gly)L)=14.88
 B(CuH2(gly)L)=30.46
 B(CuH-1(gly)L)=6.44

Cu++ gl alc/w 25°C 50% C K1=7.22 B2=13.75 1978Mca (27284)1819

 C3H7N5 L (6903)
 5-(2-Aminoethyl)-1H-tetrazole; NH2.CH2.CH2.CHN4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	20°C	0.10M	U			K1=8.62 B2=18.28	1978LEb (27287)	1820

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U			K1=4.28 B(CuHL)=9.9	1981WNa (27307)	1821

C3H7O6P		H2L						(6830)		
3-Hydroxy-2-oxopropylphosphoric acid; CH2(OH).CO.CH2.OP3H2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	25°C	0.10M	U	I		K1=2.77 K(Cu(bpy)+L)=2.79 K(Cu(phen)+L)=2.77	1992LCb (27315)	1822
In 30% dioxan.H2O K1=3.70; in 50% K1=4.50										

C3H7O7P		H4L						CAS 820-11-1	(8695)	
D-3-Phosphoglyceric acid;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	C			K1=4.23 B2= 7.53 B(CuHL)=9.11 B(Cu2H-1L2)=6.71 B(Cu2H-2L2)=-0.19	2001HJa (27334)	1823

B(CuH-2L)=-10.70

C3H8NO5P H3L 3-Phosphono-Ala CAS 20263-06-3 (1509)
2-Amino-3-phosphonatopropanoic acid; (H2O3P)CH2.CH(NH2).COOH

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

Cu++ gl KCl 25°C 0.20M C K1=9.60 B2=15.49 1989KFb (27340)1824
B(CuHL)=15.51
B(CuH2L2)=29.1
B(CuHL2)=22.4

Cu++ gl KNO3 25°C 0.20M C K1=10.36 B2=16.70 1978MAb (27341)1825
K(Cu+HL)=5.11

C3H8NO5P H3L CAS 23052-80-4 (1508)
3-Amino-3-phosphonatopropanoic acid; (H2O3P)(NH2)CH.CH2.COOH

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

Cu++ gl KCl 25°C 0.20M C K1=9.34 B2=16.15 1989KFb (27356)1826
B(CuH2L)=18.01
B(CuHL)=14.20

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

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

Cu++ gl KCl 25°C 0.10M C I R K1=11.90 B2=16.00 2001PRa (27376)1827
B(CuHL)=15.9

IUPAC Recommended value

Cu++ gl KCl 25°C 0.20M C K1=11.68 B2=16.42 1997BKb (27377)1828
B(CuHL)=15.53
B(CuH2L2)=29.37
B(CuH-1L)=2.16
B(CuHL2)=24.61

Cu++ gl KNO3 25°C 0.10M C T H K1=11.80 B2=15.86 1997DSb (27378)1829
B(CuHL)=15.71
B(CuH-1L)=1.89
B(Cu2L)=13.05

Data at 5-45 C. By calorimetry: DH(K1)=-10.9 kJ mol⁻¹, DS=192.2 J K⁻¹ mol⁻¹.
DH(B2)=-32.7, DS=195.3; DH(CuHL)=-4.5, DS=286.3; DH(CuH-1L)=20.4, DS=104.8.

Cu++ gl KCl 25°C 0.20M C K1=11.68 B2=16.42 1994JKa (27379)1830
B(CuHL)=15.35
B(CuH-1L)=2.16
B(CuH2L2)=29.37

B(CuHL2)=24.61

Cu++ gl KNO3 25°C 0.1M C K1=11.93 B2=16.02 1985MMa (27380)1831
B(CuHL)=15.85
K(CuL(OH)+H)=2.06

Cu++ gl KNO3 25°C 0.10M M K1=11.92 1978Lca (27381)1832
K(CuL+H)=4.05

C3H8NO6P H3L Phosphoserine CAS 17885-08-4 (1865)
Serine dihydrogenphosphate, O-Phosphoserine; NH2.CH(CH2.OP03H2).COOH

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

Cu++ gl KCl 25°C 0.10M U K1=6.71 1997ZTa (27426)1833
B(CuHL)=13.77

Cu++ gl KNO3 25°C 0.10M C M K1=9.578 B2=15.656 1992Y0a (27427)1834
B(CuHL)=14.781
B(CuL(Ala))=15.631; B(CuHL(Arg))=21.16 , B(CuL(Arg))=15.614
B(CuH2L(Lys))=31.40, B(CuHL(Lys))=26.066

Cu++ gl KNO3 25°C 0.10M C M K1=9.756 B2=15.869 1985Y0a (27428)1835
B(CuHL)=14.901
B(CuH(phen)L)=23.783
B(Cu(phen)L)=18.015
B(CuH(bpy)L)=22.655
B(Cu(bpy)L)=16.870, B(CuH(en)L)=24.621, B(Cu(en)L)=18.955

Cu++ gl KNO3 15°C 0.15M C K1=9.57 B2=15.88 1983MBa (27429)1836
K(Cu+HL)=4.67
Data for LL. For DL: K1=9.56, K2=6.25, K(Cu+HL)=4.67

Cu++ gl KNO3 25°C 0.20M C M K1=9.40 B2=15.35 1979MBa (27430)1837
K(Cu+HL)=4.75
B(CuH(histamine)L)=23.49
K(Cu(histamine)+L)=8.23
K(Cu(phen)+HL)=4.28
K(Cu(phen)+L)=8.30, K(Cu(bpy)+HL)=4.38, K(Cu(bpy)+L)=8.34

Cu++ gl KNO3 25°C 0.20M C K1=9.38 B2=15.38 1978MAb (27431)1838
K(Cu+HL)=4.72

Cu++ gl KNO3 25°C 0.20M C K1=9.38 B2=15.38 1978MAc (27432)1839
K(Cu+HL)=4.72
K(CuL+H)=5.06

Cu++ gl KNO3 30°C 0.10M C M K1=9.32 B2=15.16 1978MAd (27433)1840
K(Cu+HL)=5.0

Cu++ gl KCl 25°C 0.15M U K1=9.64 B2=15.52 19590Sa (27434)1841
K(Cu+HL)=4.81

Cu++ gl oth/un 25°C 0.15M U K1=9.6 19570Sa (27435)1842

C3H8N2O L Alaninamide CAS 2726-84-5 (5392)
Alaninamide, 2-Aminopropanoic acid amide; NH2.CH(CH3).CO.NH2

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

Cu++ sp none 25°C 0.0 U K1=5.07 B2=8.90 1985GMa (27480)1843
B(CuH-1L)=-2.14
B(CuH-1L2)=1.95
B(CuH-2L2)=-6.19
B(CuH-2L)=-10.87

Cu++ gl KCl 25°C 0.50M C M K1=5.07 B2=8.99 1982GSd (27481)1844
K(CuH-1L+H)=7.22
K(CuH-1L2+H)=6.97
K(CuH-2L2+H)=8.16

Ternary complex with diethylenetriamine

C3H8N2O L Sarcosine amide CAS 6250-76-6 (2982)
Sarcosine amide; CH3.NH.CH2.CO.NH2

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

Cu++ gl oth/un 25°C 0.01M U K1=4.23 B2=8.88 1959DLb (27487)1845

C3H8N2O L CAS 4726-85-6 (4236)
beta-Alaninamide; H2N.CH2.CH2.CO.NH2

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

Cu++ gl NaCl04 25°C 0.10M M M K1=5.63 1981SPd (27493)1846
K(CuLOH+H)=6.78
K(Cu(bpy)+L)=5.25
K(CuH-1L(bpy)+H)=6.9

Cu++ gl KNO3 25°C 0.10M U K1=5.09 B2=9.59 1971YMa (27494)1847

C3H8N2O2 HL CAS 71292-18-7 (356)
2,3-Diaminopropanoic acid; H2N.CH2.CH(NH2).COOH

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

Cu++ gl KNO3 20°C 0.10M C M K1=11.54 B2=19.13 1997LBc (27511)1848
B(CuHL)=15.48
B(CuHL2)=25.05
B(CuH2L2)=29.82

B(CuH-1(dien)L)=9.43
B(CuAL)=18.67, B(CuHAL)=25.72, B(CuH2AL)=32.42. A: 1,3-diaminopropane.

Cu++ gl NaClO4 37°C 0.15M U M 1997NAb (27512)1849

B(CuH2AL)=26.92
B(CuAL)=18.46
B(CuHAL)=23.28
K(CuA+L)=9.86

H2A is cysteic acid. K(CuL+A)=7.85.

Cu++ gl KNO3 25°C 0.10M C M K1=11.136 B2=20.057 1993M0a (27513)1850

B(CuHL)=15.683
B(CuH2L2)=29.952
B(CuHL2)=25.375
B(CuL(Ala))=17.906

B(CuL(Arg))=18.135, B(CuHL(Lys))=28.204, B(CuL(Val))=17.710

Cu++ gl NaClO4 37°C 0.15M U M K1=10.61 B2=20.18 1992RAC (27514)1851

B(CuHL)=15.37
B(CuH2L2)=30.16
B(CuHL2)=25.32

B(CuLZn)=14.05, B(CuL2Zn)=23.50; B(CuLNi)=13.83, B(CuL2Ni)=23.98

Cu++ gl NaClO4 37°C 0.15M U M 1990NTb (27515)1852

B(Cu(glu)HL)=25.03
K(Cu(glu)+H+L)=16.51
K(CuHL+glu)=9.66

Cu++ gl NaCl 37°C 0.15M C M K1=9.87 B2=18.67 1988CHc (27516)1853

B(CuHL)=14.72
B(CuHL2)=24.06
B(CuH2L2)=28.72
B(CuH-1L)=2.15

B(CuH-2L2)= -4.19. Ternary complex with captopril

Cu++ gl NaClO4 37°C 0.15M U M 1987SNc (27517)1854

B(CuHL(Asn))=22.87
B(CuL(Asn))=17.67
K(Cu(Asn)+H+L)=14.98
K(CuHL+Asn)=7.50

Cu++ gl NaClO4 37°C 0.15M U M K1=10.61 B2=20.18 1985NAC (27518)1855

B(CuH2L2)=30.16
B(CuHL)=15.37
B(CuHL2)=25.32

B(CuHL(bpy))=21.75, B(CuL(bpy))=17.29

Cu++ gl NaClO4 37°C 0.15M U M 1982NSd (27519)1856

B(Cu(imidazole)2L)=17.61

Cu++ gl NaCl04 37°C 0.15M U M 1982NVb (27520)1857
B(CuH2(histamine)L)=29.37
B(CuH(histamine)L)=24.75
B(Cu(histamine)L)=19.19

Cu++ gl NaCl 37°C 0.15M C M K1=10.587 B2=18.775 1981JMa (27521)1858
B(CuL(His))=18.47
B(CuHL)=14.973
B(CuHL(His))=24.41
B(CuHL2)=24.088
B(CuH2L(His))=28.09, B(CuH2L)=28.20

Cu++ gl NaCl04 37°C 0.15M U M K1=10.61 B2=20.18 1981NSa (27522)1859
B(CuHL)=15.37
B(CuH2L2)=30.16
B(CuHL2)=25.32

Cu++ gl KCl 25°C 0.20M C K1=10.62 B2=19.81 1978GFa (27523)1860
B(CuHL)=15.6
B(Cu2H2L2)=30.09
B(CuHL2)=25.31

Cu++ gl KNO3 25°C 0.10M C K1=10.51 B2=19.83 1976BPb (27524)1861
B(CuHL)=15.55
B(CuH2L2)=30.06
B(CuHL2)=25.34

Cu++ gl oth/un 25°C 0.10M U K1=11.46 B2=19.95 1971HMd (27525)1862

Cu++ gl none 25°C 0.00 U 1971HMd (27526)1863
K(Cu+HL)=6.31
K(Cu+L+HL)=15.74

Cu++ gl KCl 25°C 0.50M U K1=6.2 B2=11.20 1969MMd (27527)1864

Cu++ gl KCl 25°C 0.10M U K1=11.46 B2=19.95 1968HMa (27528)1865
K(Cu+HL)=6.31
K(Cu+HL+L)=15.74

Cu++ gl oth/un 20°C 0.02M U K1=12.02 B2=20.34 1968HMa (27529)1866
K(Cu+HL)=6.64
K(Cu+HL+L)=16.14

Calculated from data of A. Albert, Biochem.J., 1952, 50, 690

Cu++ gl oth/un 25°C 0.10M U M K1=10.6 B2=19.00 1968HMb (27530)1867
B(CuLA)=23.91

A=2,3-diaminopropanoic acid methyl ester

C3H8N2O2 HL Ala-hydroxamic CAS 16707-85-0 (1582)

2-Amino-N-hydroxypropanamide, Alanine hydroxamic acid; CH3.CH(NH2).CO.NH.OH

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

Cu++ gl KCl 25°C 0.10M C K1=10.76 B2=19.84 2003CDa (27563)1868
B(Cu5H-4L4)=40.16
B(CuH-1L2)=9.82
Ligand is (S)-conformer. By spectrophotometry: K1=10.97, B2=20.16,
B(Cu5H-4L4)=40.03, B(CuH-1L2)=9.91.

Cu++ gl KCl 25°C 0.20M C M K1=10.32 B2=19.65 2002KBa (27564)1869
B(Cu2H-1L2)=20.88
B(CuH-1L2)=9.91
B(CuAHL)=27.09
B(CuAL)=20.45
A is N,N,N',N'',N''-pentamethyldiethylenetriamine.

Cu++ gl KCl 25°C 0.20M C K1=10.89 B2=19.87 1989FSa (27565)1870
B(CuH-1L2)=9.98
B(Cu2H-1L2)=20.89

Cu++ gl KCl 25°C 0.50M C K1=10.32 B2=20.04 1989LEa (27566)1871
B(Cu2H-1L2)=20.90
B(CuH-1L2)=11.11

Cu++ gl NaClO4 25°C 0.10M U K1=10.90 B2=19.65 1986KKd (27567)1872
B(Cu2H-1L2)=21.41
B(CuH-1L2)=9.74

C3H8N2O2 HL (6039)
Sarcosinehydroxamic acid; CH3.NH.CH2.CO.NH.OH

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

Cu++ gl NaClO4 25°C 0.10M M K1=10.39 B2=18.52 1988KJa (27584)1873
B(Cu2H-1L2)=20.22
B(CuH-1L2)=8.77

C3H8N2O2 L Serinamide (6329)
Serinamide, Serine amide; H2N.CH(CH2.OH).CO.NH2

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

Cu++ gl KNO3 25°C 0.10M C K1=4.612 B2=8.21 1975BPa (27588)1874
B(CuH-1L)=-1.948
B(CuH-1L2)=1.81
B(CuH-2L)=-9.515
B(Cu2H-3L2)=-8.65

C3H8N2O2 HL (6666)
beta-Alaninehydroxamic acid; NH2.CH2.CH2.CO.NHOH

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

Cu++ gl KCl 25°C 0.10M C 2003CDa (27597)1875

B(CuHL)=17.22
B(Cu5H-4L4)=49.39

By spectrophotometry: B(CuHL)=16.85, B(Cu5H-4L4)=48.91.

Cu++ gl KCl 25°C 0.20M C M K1=12.85 2002KBa (27598)1876

B(Cu5H-4L4)=46.66
B(CuAH2L)=34.01
B(CuAHL)=27.76
B(CuAL)=18.91

A is N,N,N',N'',N''-pentamethyldiethylenetriamine.

C3H8N2O3 H2L CAS 55779-32-3 (5500)
Serinehydroxamic acid, 2-Amino-N,3-dihydroxypropionamide; HO.CH2.CH(NH2).CO.NH.OH

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

Cu++ gl KCl 25°C 0.50M C B2=19.65 1989LEd (27614)1877

B(CuH-1L2)=10.09
B(Cu2H-1L2)=20.43

C3H8N2O3 HL (6500)
beta-Aminoxy-D-Alanine; H2NOCH2.CH(NH2)COOH

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

Cu++ gl KCl 25°C 0.20M U K1=7.93 B2=14.59 1992Bkb (27622)1878

B(CuHL)=11.02

C3H8N4O L CAS 44648-02-4 (2983)
Guanylmethylurea; H2N.C(:NH).CH2.NH.CO.NH2

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

Cu++ gl KCl 30°C 0.10M U K1=8.82 B2=15.99 1960DUa (27639)1879

C3H8OClP L CAS 1638-75-1 (1352)
P,P-Dimethyl-P-(chloromethylene)phosphineoxide; Cl.CH2.(CH3)2P:O

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

Cu++ oth non-aq rt 100% U M 1983RIa (27648)1880

K(CuCl+L)=2.69
K(CuCl+L)=2.35
K(CuCl+L)=2.53

Medium: MeCN. Method: IR using different IR-lines

C3H8O2S HL 1-Thioglycerol CAS 96-27-5 (1848)
3-Mercapto-1,2-propanediol HS.CH2.CH(OH).CH2.OH

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

Cu++ gl NaClO4 20°C 0.10M U TI K1=17.82 1986NDb (27700)1881

C3H8O3 L Glycerol CAS 56-81-5 (2707)
Propane-1,2,3-triol; HO.CH2.CH(OH).CH2.OH

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

Cu++ vlt NaNO3 25°C 3.0M U 1995NVa (27714)1882
B(CuL(OH)3)=20.2
B(CuL2(OH)2)=21.1

Method: DC polarography, pH > 11. Ligand may be anion of glycerol?

Cu++ vlt mixed 20°C 3.0M U 1986NVa (27715)1883
K[Cu+(H-1L)+3OH]=20.2
K[Cu+2(H-1L)+2OH]=21.1

C3H8S HL Propylmercaptan CAS 75-33-2 (2515)
2-Propanethiol, Isopropylmercaptan; CH3.CH(SH).CH3

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

Cu++ gl alc/w 20°C 25% U T H K1=7.56 1978SKf (27803)1884
DH=-55.10 kJ mol⁻¹. Data also available when T=10 and 30. Alternative
methods: Conductivity and amperometric techniques.

Cu++ con alc/w 20°C 25% C TIH 1978SKj (27804)1885
Kso(CuL2)=-7.56

Medium: 25% v/v EtOH/H2O. Additional methods: potentiometry (25% EtOH/H2O)
polarography (25% EtOH/H2O, 0.2 M NaClO4). Data for 10 and 30 C. DH values

C3H9N L Trimethylamine CAS 75-50-3 (803)
Trimethylamine; (CH3)3.N

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

Cu++ sp NaClO4 25°C 0.20M U 1991CCb (27855)1886
K(CuA+L=CuAL)=1.81

A is rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane

Cu++ sp alc/w 26°C 100% U K1=2.88 B2=4.91 1971SAi (27856)1887
Medium: MeOH, 0.5 L.HNO3

C3H9NO L CAS 2799-16-8 (905)
1-Aminopropan-2-ol; H2N.CH2.CH(OH).CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	vlt	KNO3	25°C	? C					1980AAb (27869)	1888
B3eff=16.22										

Cu++	vlt	KNO3	25°C	0.50M U		M			1971HSa (27870)	1889
B(Cu+2L+2OH)=20.6										

C3H9NO	L								CAS 109-83-1	(899)
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2-(Methylamino)ethanol; HO.CH2.CH2.NH.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	vlt	KNO3	25°C	? C					1980AAb (27881)	1890
B3eff=16.46										

Cu++	gl	oth/un	25°C	0.10M U				K1=5.0 K3=3.2 K4=2.5	B2=9.00	1965D0a (27882)	1891
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C3H9NO	L								CAS 78-91-1	(6010)
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2-Amino-1-propanol; CH3.CH(NH2).CH2OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo	
Cu++	gl	alc/w	20°C	50% C				K1=5.28 K3=2.75	B2=9.27	1987THa (27890)	1892

Data for DL ligand. For R(-) ligand, K1=5.23, K2=4.33, K3=2.59.

C3H9NO	L								CAS 109-85-3	(1575)
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2-Methoxyethylamine; CH3O.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo	
Cu++	sp	KNO3	25°C	1.00M U				K1=4.60 B3=9.55	B2=7.84	1989CGa (27898)	1893
B(CuH-1L3)=-1.84											

Cu++	nmr	NaNO3	25°C	1.00M U				K1=4.4 B3=10.4	B2=8.5	1986TCa (27899)	1894
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C3H9NO	L								CAS 156-87-6	(906)
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3-Aminopropan-1-ol; HO.CH2.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo	
Cu++	gl	alc/w	20°C	50% C				K1=4.56 K3=2.77	B2=8.77	1987THa (27911)	1895

Cu++	vlt	KNO3	25°C	? C					B2=9.60	1980AAb (27912)	1896
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B3eff=13.24

C3H9NO2 L Serinol CAS 534-03-2 (3624)
2-Amino-1,3-propanediol; HOCH2CH(NH2)CH2OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	U			K1=4.40 B(CuH-1L)=-2.23 B(CuH-1L2)=1.14 B(CuH-2L2)=-7.16	1999CCb (27919)	1897

C3H9NS L CAS 18542-42-2 (1215)
1-Amino-3-thiabutane; H2N.CH2.CH2.S.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	C	H		K1=5.572 B2=10.65	1977HGa (27933)	1898
DH(K1)=-33.3 kJ mol ⁻¹ , DS(K1)=-30.5 J K ⁻¹ mol ⁻¹ DH(K2)=-38.1 kJ mol ⁻¹ DS(K2)=-15.0 J K ⁻¹ mol ⁻¹										

Cu++	gl	NaClO4	20°C	0.15M	U			K1=5.30 B2=9.68	1962HPa (27934)	1899
Cu++	gl	none	10°C	0.0	U	T H		K1=5.74 B2=11.06	1959MBa (27935)	1900
DH(K1)=-30 kJ mol ⁻¹ , DS=4; DH(K2)=-20, DS=33. 20 C: K1=5.61, K2=5.20; 30 C: K1=5.41, K2=5.13; 40 C: K1=5.21, K2=4.98										

Cu++	gl	KNO3	30°C	1.0M	U			K1=5.58 B2=10.68	1954GFa (27936)	1901
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Cu++	gl	none	30°C	0.0	U			K1=5.42 B2=10.53	1953MCa (27937)	1902
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C3H9NS HL CAS 462-47-5 (1566)
3-Aminopropane-1-thiol; H2N.CH2.CH2.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U	T H		K(CuL+H)=7.9	1983BVa (27948)	1903

Cu++	vlt	oth/un	25°C	0.17M	U			B2=16.28	1961KPa (27949)	1904
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Medium: phosphate buffer

C3H9NS HL CAS 10061-40-2 (2593)
N-Methyl-2-aminoethanethiol; CH3.NH.CH2.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U	T H		K(CuL+H)=6.0	1983BVa (27956)	1905

C3H9N2O4P H2L CAS 30211-73-5 (7117)
 Glycylaminomethylphosphonic acid;

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++       gl  KNO3   25°C 0.10M C           K1=6.55  B2=11.93  1995HLA (27961)1906
                                     B(CuHL)=11.98
                                     B(CuH-1L)=1.644
                                     B(CuH-2L)=-6.71
                                     B(CuH-1L2)=4.89
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-----
Cu++       gl  KNO3   25°C 0.10M U           K1=6.86           1975HMc (27962)1907
                                     K(CuL+H)=5.19
                                     *K(CuL)=-5.17
-----
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C3H9N3O L CAS 19728-65-5 (2703)
 2-(Methylamino)acetamidoxime; CH3.NH.CH2.C(:NOH)NH2

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++       gl  NaCl04 25°C 1.00M C       K1=8.108  B2=14.995 1986S0b (27972)1908
                                     B(CuH-1L2)=8.453
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C3H9N3O HL (6985)
 3-Aminopropanamidoxime; H2N.CH2.CH2.C(:NOH)NH2

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++       gl  NaCl    25°C 0.10M C           K(Cu+H+HL)=10.3
                                     K(Cu+HL)=7.53
                                     K(Cu+2HL)=13.58
                                     B(-7,5,4)=4.98
-----
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B(p,q,r); pH+qCu+rHL=Hp(Cu)q(HL)r. B(-8,5,4)=0.01

C3H9N3O2 HL CAS 471915-95-4 (8549)
 2,3-Diamino-N-hydroxypropanamide;

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++       gl  KCl     25°C 0.20M C           B2=17.61           2002ECa (27979)1910
                                     B(CuH2L)=22.25
                                     B(CuHL)=18.09
                                     B(CuH2L2)=33.31
                                     B(CuHL2)=26.60
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B(Cu2L2)=28.6.

C3H9N3S L CAS 3685-60-7 (3553)
 Aminoethylisothiourea; H2N.CH2.CH2.S.C(:NH).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	vlt	oth/un	25°C	0.17M	U		K1=14.04	1961KPa (27985)	1911
Medium: phosphate buffer									

C3H9N5		L					CAS 80247-85-7	(2974)	
Methylbiguanide; CH3.NH.C(:NH).NH.C(:NH).NH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	sp	KCl	30°C	0.25M	U		B2=17.12	1959RRa (27988)	1912
Cu++	gl	oth/un	32°C	0.05M	U		K1=9.53 B2=17.16	1956SRb (27989)	1913

C3H9O3P		L					CAS 121-45-9	(1786)	
Trimethylphosphite; (CH3O)3.P									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	cal	non-aq	25°C	100%	U	HM		1976MDb (27999)	1914
							K(Cu(hfac)2+L)=2.62 in A		
							K(Cu(hfac)2+L)=2.41 in B		
Metal: Bis(hexafluoroacetylacetonato)copper(II), (Cu(hfac)2). DH=-23 kJ mol ⁻¹ in A (A= o-C12C6H4) and DH=-25 in B (B= CH2C12). *****									
C3H9O3PS		H2L					CAS 69639-94-3	(545)	
(Ethylthiomethyl)phosphonic acid; CH3.CH2.S.CH2.PO3H2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U		K1=4.150 B2=7.28	1981WNa (28006)	1915
							K(Cu+L=Cu(OH)L+H)=-3.09		

C3H9O4P		H2L					(6694)		
(Phosphonylmethoxy)ethane; H2O3P.CH2.O.CH2.CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	mixed	25°C	30%	M		K1=4.62	1993BCg (28010)	1916
Medium: 0.1 M NaNO3 in 30% Dioxane/H2O (v/v); both K1 are only estimates For 0.1 M NaNO3 in 50% Dioxane/H2O (v/v) K1=5.27									
Cu++	gl	NaNO3	25°C	0.10M	M		K1=3.73	1993CBb (28011)	1917
							K(Cu(bpy)+L)=3.86		
							K(Cu(phen)+L)=3.90		
Cu++	gl	NaNO3	25°C	0.10M	C	I	K1=3.73	1993CGa (28012)	1918
In 30% (50%) v/v 1,4-dioxan/H2O, K1=4.62 (5.27).									
Cu++	gl	NaNO3	25°C	0.10M	M		K1=3.73	1992SCa (28013)	1919

C3H9O6P H2L CAS 57-03-4 (2984)
2,3-Dihydroxypropylphosphoric acid, Glycerol 1-phosphate; HO.CH2.CH(OH).CH2.OPO3H2

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

Cu++ gl NaNO3 25°C 0.10M U I K1=2.83 1992LCb (28037)1920
K(Cu(bpy)+L)=2.90
K(Cu(phen)+L)=2.92

In 30% dioxan/H2O K1=3.85; in 50% K1=4.65

C3H9O7P H2L (6547)
Propane-1,2,3-triol-2-phosphoric acid; HO.CH2.C(OH)(CH2OH)H2PO4

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

Cu++ gl NaCl 25°C 0.15M C H K1=2.808 1991KLa (28053)1921
B(CuH-1L)=-3.728
B(CuH-2L)=-10.312

DH(K1)=37.6 kJ mol⁻¹, DS(K1)=179.9 J K⁻¹ mol⁻¹

C3H10NO2P H2L (6428)
(1-Aminoethyl)methylphosphinic acid; CH3.CH(NH2).PO(CH3)(OH)

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

Cu++ gl KCl 25°C 0.20M C K1=5.45 B2=9.99 1991KJa (28061)1922
B(CuH-1L2)=1.20

C3H10NO3P H2L (1986)
1,1-Dimethyl-1-aminomethylphosphonic acid; H2N.C(CH3)2.PO3H2

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

Cu++ gl KNO3 25°C 0.10M U K1=9.13 B2=16.64 1979WNB (28065)1923
B(CuHL)=13.68
B(CuHL2)=22.32
B(CuH2L2)=27.25

Cu++ oth none 25°C 0.0 U K1=9.04 B2=16.51 1974WNB (28066)1924
B(CuHL2)=22.35
B(CuHL)=13.70
B(CuH2L2)=27.08

Cu++ gl KNO3 25°C 0.10M U K1=8.95 B2=16.44 1972WNB (28067)1925
B(CuHL)=13.63
B(CuH2L2)=27.36
B(CuHL2)=22.26

Cu++ gl KCl 25°C 0.10M U K1=8.47 B2=15.29 1969DMd (28068)1926

K(Cu+HL)=4.08
K(Cu+2HL)=8.07

C3H10NO3P H2L CAS 13138-33-5 (1982)

3-Aminopropylphosphonic acid; H2N.CH2.CH2.CH2.PO3H2

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

Cu++ g1 KNO3 25°C 0.10M U K1=7.15 1979WNb (28084)1927
B(CuHL)=13.97
K(Cu+L=Cu(OH)L+H)=0.1

Cu++ g1 KNO3 25°C 0.10M U K1=7.65 B2=13.9 1972WNa (28085)1928
B(CuHL)=13.68
B(CuH2L2)=27.3
B(CuHL2)=20.9

C3H10NO3P H2L CAS 35869-68-2 (1989)

Dimethylaminomethylphosphonic acid; (CH3)2N.CH2.PO3H2

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

Cu++ g1 KNO3 25°C 0.10M C K1=8.06 1993SKc (28091)1929
K(CuL+H)=5.45

Cu++ g1 KNO3 25°C 0.10M U K1=7.99 B2=13.84 1979WNb (28092)1930
B(CuHL)=13.36
B(CuHL2)=20.84
B(CuH2L2)=26.08
B(CuH-1L)=0.20

Cu++ g1 KNO3 25°C 0.10M U K1=7.992 B2=13.86 1978WNb (28093)1931
B(CuH-1L)=0.21
B(CuHL)=13.36
B(CuHL2)=20.84
B(CuH2L2)=26.06

C3H10NO3P H2L CAS 67910-53-6 (1988)

Ethylaminomethylphosphonic acid; C2H5.NH.CH2.PO3H2

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

Cu++ g1 KNO3 25°C 0.10M U K1=7.72 B2=13.0 1979WNb (28104)1932
B(CuHL)=13.42
B(CuHL2)=20.73
B(CuH2L2)=26.31
B(CuH-1L)=0.15

C3H10NO4P H2L (6963)

1-Amino-2-hydroxypropylphosphonic acid;

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

Cu++ gl KCl 25°C 0.20M C K1=8.17 B2=14.97 1994JKa (28106)1933
B(CuHL)=12.13
B(CuH-1L2)=4.23
B(CuH-2L2)=-7.03

C3H10NO4P H2L (6482)
1-Amino-2-methyloxyethanephosphonic acid; H2N.CH(PO3H2)CH2.OCH3

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

Cu++ gl KCl 25°C 0.20M U K1=8.13 B2=14.45 1990BJc (28108)1934
B(CuHL)=12.16

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

Cu++ gl NaClO4 37°C 0.15M U M K1=10.45 B2=19.33 1997NAb (28125)1935
B(CuAL)=17.84
K(CuA+L)=9.24
K(CuL+A)=7.37

H2A is cysteic acid.

Cu++ gl diox/w 30°C 50% U I M 1986EBa (28126)1936
K(CuA+L)=9.00
K(CuC+L)=9.71

A=2,2'-dipyridylamine, C=2,2'-dipyridylketone

Cu++ gl diox/w 30°C 50% U M K1=10.10 B2=19.70 1984EBa (28127)1937
B(CuLA)=9.73

A=5-nitro-1,10-phenanthroline

Cu++ sp diox/w 30°C 50% U M K1=10.10 B2=19.69 1982PPb (28128)1938

Cu++ gl NaClO4 30°C 0.15M U M K1=11.32 1974PBb (28129)1939
B(CuL(bpy))=10.37

Cu++ gl oth/un 25°C 0.10M U K1=10.71 B2=19.93 1970ABc (28130)1940
DL, D and L isomers

Cu++ gl oth/un 25°C 0.0 U M 1967NKc (28131)1941
B(CuL(en))=19.75
B(CuLA)=17.98
B(CuLB)=18.72
K(CuL2+Cu(en)2=2CuL(en))=0.31

A=N,N'-diethylethylenediamine, B=1,3-propanediamine. K(CuL2+CuA2=2CuLA)=1.92

K(CuL2+CuB2=2CuLB)=1.15. Ternary complexes with EDTA, 5-sulfosalicylic acid

Cu++ gl NaClO4 25°C var U I 1962NMa (28132)1942
K1=10.56+0.89I-0.52I^(3/2)+0.13I^(2), B2=19.64+2.11I-1.24I^(3/2)+0.28I^(2)

Cu++ gl oth/un 25°C 0.0 U T H 1962NMe (28133)1943
K1=4519.8/T-10.181+0.01878T
K2=4238.8/T-9.697+0.01530T
At 25 C: DH(K1)=-54.3 kJ mol-1, DS=20.9 J K-1 mol-1, DH(K2)=-55.2, DS=-11.3

Cu++ gl KNO3 25°C 0.50M U T K1=10.78 B2=20.06 1954BCa (28134)1944
0 C: K1=11.65, K2=10.12

Cu++ vlt KNO3 25°C 0.10M U B2=20.17 1949LAd (28135)1945

Cu++ gl KNO3 30°C 0.50M U K1=10.58 B2=19.66 1945Cma (28136)1946

C3H10N2 L Propanediamine CAS 109-76-2 (123)
1,3-Diaminopropane; H2N.CH2.CH2.CH2.NH2

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

Cu++ gl KNO3 25°C 0.10M M M K1=9.85 B2=17.45 2003SFa (28208)1947
B(CuH-1L)=2.10
B(CuHL)=15.64
B(CuH2L2)=31.92
B(CuHL2)=25.22
B3=21.82, B(CuH3L3)=48.80, B(CuH2L3)=40.76, B(CuHL3)=32.02, B(Cu(atp)L)=
15.37, B(CuH(atp)L)=20.95, B(CuH-1(atp)L)=5.04, B(CuH-2(atp)L)=-4.78

Cu++ gl KNO3 20°C 0.10M C M K1=9.68 B2=16.79 1997LBC (28209)1948
B3=21.66
B(CuHL)=15.78
B(Cu(en)L)=18.61

Cu++ gl NaClO4 37°C 0.15M U M K1=9.47 B2=16.92 1997NAb (28210)1949
B(CuHL2)=22.12
B(CuAL)=16.95
B(CuHAL)=22.57
K(CuA+L)=8.35

H2A is cysteic acid. K(CuL+A)=7.48.

Cu++ gl NaClO4 20°C 0.10M C M K1=9.68 B2=16.79 1996LGA (28211)1950
B3=21.66
B(CuHL)=15.78
B(CuH-1L)=2.04
B(CuAL)=12.12
HA=adenosine. B(CuHAL)=19.37, B(CuAL2)=18.9, B(CuH-2AL)=-5.13

Cu++ gl NaClO4 20°C 0.10M U K1=9.68 B2=16.79 1991WBA (28212)1951

B3=21.66
B(CuHL)=15.78
B(CuH-1L)=2.04

Cu++ gl NaClO4 25°C 0.20M M K1=9.758 B2=17.069 1989PBa (28213)1952
B(CuLA)=17.41

H2A=pyridine-2,6-dicarboxylic acid

Cu++ gl diox/w 30°C 50% U I M 1986EBa (28214)1953
K(CuA+L)=8.05
K(CuC+L)=9.42

A=2,2'-dipyridylamine, C=2,2'-dipyridylketone

Cu++ gl diox/w 30°C 50% U M K1=10.35 B2=18.44 1984EBa (28215)1954
B(CuLA)=8.76

A=5-nitro-1,10-phenanthroline

Cu++ vlt KNO3 25°C 1.0M C M K1=13.00 B2=19.44 1983GJb (28216)1955
B(PbAL)=16.09
B(PbBL)=16.20
B(PbCL)=15.46

Method: polarography. H2A is malonic acid; H2B is phthalic acid;
H2C is adipic acid.

Cu++ vlt KNO3 25°C 1.0M C M K1=13.00 B2=19.44 1982GAa (28217)1956
Method: polarography. B(CuAL)=15.69, B(CuBL)=15.55,
where H2A is maleic acid and H2B is succinic acid.

Cu++ gl KNO3 25°C 0.10M U M K1=10.80 1982KJa (28218)1957
K(Cu2(CDTA)+2L)=18.93

Cu++ gl KCl 25°C 1.0M C K1=9.97 B2=17.28 1982NDb (28219)1958
K(Cu+OH+L)=15.73
K(Cu+OH+2L)=18.95

Cu++ gl KNO3 25°C 0.20M U K1=9.65 B2=16.82 1981M0d (28220)1959

Cu++ vlt none 25°C 0.0 U 1981RKa (28221)1960
B(CuL(Gly))=17.18
B(CuL(Ala))=16.99
B(CuL(Ser))=16.39
B(CuL(B-Ala))=15.75

Spectrophotometry also used.

Cu++ gl KCl 25°C 0.20M C H K1=9.65 B2=16.82 1976GSd (28222)1961
By calorimetry: DH(K1)=-49.5 kJ mol⁻¹, DH(B2)=-95.5

Cu++ gl KCl 25°C 0.20M C H K1=9.65 B2=16.82 1976SGa (28223)1962
By calorimetry: DH(K1)=-49.5 kJ mol⁻¹, DS(K1)=19 J K⁻¹ mol⁻¹;
DH(B2)=-95.5, DS(B2)=2.

Cu++ gl KCl 25°C 0.20M C HM 1976SGa (28224)1963
B(Cu(gly)L)=16.91
K(CuL+gly)=7.26
K(Cu(gly)+L)=8.84
By calorimetry: DH(Cu(gly)L)=-77.0 kJ mol⁻¹, DS(Cu(gly)L)=65 J K⁻¹ mol⁻¹;
DH(CuL+gly)=-27.5, DH(Cu(gly)+L)=-51.4.

Cu++ gl KCl 25°C 0.20M C HM 1976SGa (28225)1964
B(Cu(en)L)=18.83
K(CuL+en)=9.18
K(Cu(en)+L)=8.26
By calorimetry: DH(Cu(en)L)=-102.9 kJ mol⁻¹, DS(Cu(en)L)=15 J K⁻¹ mol⁻¹;
DH(CuL+en)=-53.4, DH(Cu(en)+L)=-49.5.

Cu++ vlt NaClO4 30°C 0.10M U K1=8.0 B2=19.21 1975MJc (28226)1965
B3=19.6

Cu++ gl oth/un 30°C 0.10M U M K1=9.72 B2=16.62 1975PBb (28227)1966
K(Cu(NTA)+L)=7.05
K(Cu(IDA)+L)=7.73

Cu++ sp oth/un 25°C var U 1973Y0a (28228)1967
K(Cu+CuL2=2CuL)=2.26 pH 6.3

Cu++ nmr alc/w 25°C 50% U H 1973Y0a (28229)1968
K(CuL2+Cu=2CuL)=2.66
Method: esr, pH=6.3. DH=4.5 kJ mol⁻¹, DS=28 J K⁻¹ mol⁻¹.

Cu++ gl oth/un 25°C dil U K1=9.18 B2=14.84 1972NBA (28230)1969

Cu++ gl NaClO4 25°C 0.10M U M K1=9.82 B2=17.04 1971SHa (28231)1970
B(CuL(bpy))=15.35
B(CuLA)=23.09

H2A=catechol

Cu++ gl NaClO4 25°C 0.30M C H K1=10.16 B2=17.30 1967HWa (28232)1971
By calorimetry DH(K1)=-46.1 kJ mol⁻¹, DH(K2)=-46.1

Cu++ gl oth/un 25°C 0.0 U M 1967NKc (28233)1972
B(CuL(en))=18.58
B(CuLA)=16.26
B(CuLB)=18.72
K(CuL2+Cu(en)2=2CuL(en))=0.98
A=N,N'-diethylethylenediamine, B=1,2-propanediamine. K(CuL2+CuA2=2CuLA)=1.49
K(CuL2+CuB2=2CuLB)=1.15

Cu++ gl NaClO4 25°C var U 1965NKf (28234)1973
K1=9.63+0.402I-0.076I^(3/2)+0.085I⁽²⁾
K2=7.02+0.530I-0.018I^(3/2)+0.068I⁽²⁾

 Cu++ gl oth/un 25°C 0.0 U 1965NKf (28235)1974
 K(Cu(OH)L+H)=7.42
 K(Cu₂(OH)₂L₂+2H)=12.67
 K(2CuOHL=Cu₂(OH)₂L₂)=2.17
 K(Cu(OH)₂L+H)=11.70

Cu++ gl oth/un 10°C ->0 U T H K1=10.13 1958BFa (28236)1975
 DH(K1)=-58.2 kJ mol⁻¹, DS=-13. K1=9.72(20 C), 9.45(30 C), 9.16(40 C)

Cu++ gl KNO₃ 0°C 1.0M U T H K1=10.74 B2=18.79 1956HFb (28237)1976
 DH(K1)=-59 kJ mol⁻¹, DS=-13; DH(K2)=-54, DS=-50. 30 C: K1=9.62, K2=7.00

Cu++ oth oth/un 25°C 1.0M U H 1956RAa (28238)1977
 DS(Cu(NH₃)₄+2L=CuL₂+4NH₃)=46 J K⁻¹ mol⁻¹

Cu++ gl oth/un 25°C 0.15M U H 1955CHa (28239)1978
 At 25 C: DH(K1)=-52.3 kJ mol⁻¹, DS=8.4 J K⁻¹ mol⁻¹; DH(K2)=-51.4, DS=-37.6

Cu++ gl oth/un 0°C 0.15M U T K1=10.52 B2=18.46 1955CHb (28240)1979
 49.1 C: K1=9.00, K2=6.45

Cu++ cal KNO₃ 25°C 1.0M U H K1=9.98 B2=17.17 1955PBa (28241)1980
 DH(B2)=-95.3 kJ mol⁻¹, DS=8.4 J K⁻¹ mol⁻¹

Cu++ gl KCl 25°C 0.10M U K1=9.77 B2=16.94 1954IRa (28242)1981

Cu++ gl KNO₃ 0°C 1.0M U T K1=10.74 B2=18.79 1952HAa (28243)1982
 30 C: K1=9.62, K2=7.00

 C3H10N2 L CAS 109-81-9 (1308)
 N-Methyl-1,2-diaminoethane; CH₃.NH.CH₂.CH₂.NH₂

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

Cu++ gl diox/w 30°C 50% U I M 1986EBa (28334)1983
 K(CuA+L)=7.99
 K(CuC+L)=9.67
 A=2,2'-dipyridylamine, C=2,2'-dipyridylketone

Cu++ gl diox/w 30°C 50% U M K1=10.13 B2=19.53 1984EBa (28335)1984
 B(CuLA)=9.7
 A=5-nitro-1,10-phenanthroline

Cu++ gl KCl 25°C 1.0M U K1=10.56 B2=19.38 1983DPa (28336)1985

Cu++ gl KNO₃ 25°C 1.00M C H K1=10.50 B2=19.31 1982ABc (28337)1986
 By calorimetry: DH1=-45.2 kJ mol⁻¹, DS1=49.4; DH(B2)=-94.6, DS(B2)=51.8

Cu++ sp diox/w 30°C 50% U M K1=10.13 B2=19.54 1982PPb (28338)1987

Cu++ gl NaClO4 25°C 0.10M U K1=12.77 B2=22.91 1981ATa (28339)1988

Cu++ gl KNO3 25°C 0.50M U K1=10.40 B2=19.09 1972BFb (28340)1989

Cu++ gl none 25°C 0.00 U K1=10.26 B2=18.77 1970NKa (28341)1990

Cu++ gl oth/un 10°C ->0 U T H K1=10.64 B2=19.65 1959MBa (28342)1991
DH(K1)=-51.0 kJ mol⁻¹, DS=15 J K⁻¹ mol⁻¹; DH(K2)=-52.3, DS=13.,
20 C: K1=10.30, K2=8.60; 30 C: K1=10.06, K2=8.38; 40 C: K1=9.72, K2=8.06

Cu++ gl KNO3 0°C 0.50M U T K1=11.12 B2=20.15 1952BMa (28343)1992
25 C: K1=10.55, B2=19.11

Cu++ gl KNO3 0°C 0.50M U H 1952BMb (28344)1993
0-25 C: DH(K1)=-35.5 kJ mol⁻¹, DS=83.6 J K⁻¹ mol⁻¹, DH(K2)=-29.3, DS=66.9

Cu++ gl oth/un 0°C ->0 U K1=10.92 B2=20.16 1952Mca (28345)1994

C3H10N2O L CAS 616-29-5 (1910)
1,3-Diaminopropane-2-ol; H2N.CH2.CH(OH).CH2.NH2

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

Cu++ gl KCl 25°C 0.20M C H K1=8.37 B2=14.77 1987KSa (28370)1995
B(Cu2H-2L2)=10.25
DH(K1)=-50.2 kJ mol⁻¹, DS= -8 J K⁻¹ mol⁻¹; DH(Cu2H-2L2)=-55.3, DS=11

Cu++ gl NaClO4 25°C 0.10M C I 1981LTa (28371)1996
B(Cu2L2H-2)=12.89

Cu++ gl NaClO4 25°C 0.10M U 1978LKf (28372)1997
K(Cu+HL=CuL+H)=3.75
K(Cu+HL=CuH-1L+2H)=-6.6
K(Cu+2HL=CuH2L2)=-3.44
K(Cu+2HL=CuHL2+H)=6.34
K(Cu+2HL=CuL2+2H)=15.1.

Cu++ gl none 25°C 0.00 U M 1970NTa (28373)1998
K(2Cu+2L+2H2O=Cu2(OH)2L2+2H)=10.30

Cu++ gl NaCl 30°C 0.16M U 1965MBa (28374)1999
K(Cu+H-1L)=18.40

Cu++ gl oth/un 10°C 0.0 U T H 1958BBc (28375)2000
K(Cu+L=CuH-1L+H)=3.72
DH(K)=-22 kJ mol⁻¹, DS=-4. K=3.64(20 C), 3.57(30 C), 3.34(40 C)

Cu++ gl KNO3 30°C 1.0M U K1=9.70 1951GOa (28376)2001

C3H11N06P2 H4L (6772)
 (Dimethylamino)-N-methylenediphosphonic acid; (CH3)2N.CH(PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.10M	M			K1=11.92 K(Cu+HL)=9.49	1978GMF (28406)	2002

C3H11N06P2 H4L (6735)
 N-Methylimino-N,N-bis(methylenephosphonic acid); CH3.N(CH2PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	C			K1=13.82 B(CuH-1L)=3.44 B(CuH-2L)=-8.88 B(CuHL)=18.03 B(CuH2L)=21.54	1998KKc (28424)	2003

Cu++	gl	KNO3	25°C	0.10M	C			K1=14.32 K(CuL+H)=4.38 K(CuHL+H)=3.40 *K(CuL)=-10.8	1993SKc (28425)	2004
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Cu++	gl	NaClO4	25°C	0.10M	U			K1=13.91 B(CuHL)=18.77 B(CuH2L2)=35.78	1988LDa (28426)	2005
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C3H11N203P H2L CAS 23575-68-0 (4244)
 Ethylenediamine-N-methylenephosphonic acid; H2N.CH2.CH2.NH.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	oth/un	25°C	0.10M	U			K1=14.8 B2=20.90 K(Cu+HL)=8.2	1972AUa (28461)	2006

C3H11N203P H2L (6484)
 N-Methyl-1,2-diaminoethanephosphonic acid; H2N.CH(PO3H2)CH2.NH.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	U			K1=11.81 B2=21.54 B(CuHL)=17.39 B(CuHL2)=27.93 B(CuH2L2)=33.65	1990BJc (28467)	2007

C3H11N3 L CAS 21292-99-6 (2975)
 Propane-1,2,3-triamine; H2N.CH2.CH(NH2).CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++ gl KNO3 25°C 0.10M C B2=19.55 1998ZMa (28473)2008
B(CuHL)=18.07
B(CuHL2)=27.54
B(CuH2L)=34.83

Cu++ gl NaCl 25°C 0.15M C H K1=10.41 B2=19.60 1997CSa (28474)2009
B(CuHL)=18.26
B(CuHL2)=27.77
B(CuH2L2)=35.21
B(CuH-1L)=2.46

By calorimetry: DH(K1)=-59 kJ mol⁻¹, DS=1 J K⁻¹ mol⁻¹; DH(K2)=-46, DS=22;
DH(Cu+HL)=-52, DS=-9; DH(CuL+HL)=-43, DS=4; DH(CuHL+L)=-50, DS=14

Cu++ gl KCl 20°C 0.10M U K1=11.1 B2=20.10 1950PSa (28475)2010
K(Cu+HL)=8.8
K(CuHL+L)=9.6
K(CuL+HL)=7.3

C3H12N09P3 H6L NTPA CAS 6419-19-8 (2920)
Nitrilotris(methylenephosphonic acid); N(CH2PO3H2)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++	gl	R4N.X	25°C	0.50M	C			K1=16.43 K(Cu+HL)=11.0 K(Cu+H2L)=8.4 K(Cu+H3L)=5.8 K(2CuH3L=Cu2(H3L)2)=1.4	2001CGa (28510)2011	
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Medium: 0.50 M Me4NCl.

Cu++	gl	KCl	25°C	0.10M	C	I	R	K(Cu+HL)=10.7 K(CuL+H)=6.34 K(CuHL+H)=4.55 K(CuH2L+H)=3.50	2001PRa (28511)2012	
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IUPAC Recommended values.

Cu++	gl	KCl	25°C	0.20M	C			K1=16.19 B(CuHL)=22.37 B(CuH2L)=26.84 B(CuH3L)=30.23 B(CuH-1L)=4.72	1997BKb (28512)2013	
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Cu++	gl	KNO3	25°C	0.10M	C			K1=17.4 K(CuL+H)=6.35 K(CuH2L+H)=3.46 K(CuHL+H)=4.57 K(CuH3L+H)=1.4	1997DBb (28513)2014	
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Cu++ gl KNO3 25°C 0.10M C K1=17.2 1989SAa (28514)2015
 K(CuL+H)=6.33
 K(CuHL+H)=4.53
 K(CuH2L+H)=3.5

 Cu++ vlt NaClO4 25°C 0.40M C 1988NKb (28515)2016
 K(Cu+H3L)=5.6
 K(Cu+H2L)=7.7
 K(Cu+HL)=10.6

Method: polarography. Medium pH=3.4-4.9.

 Cu++ gl alc/w 25°C 10% U K1=17.58 1987SHa (28516)2017
 K(CuL+H)=6.56
 K(CuHL+H)=4.67
 K(CuH2L+H)=3.92

In 10% ethanol/H2O; I=0.1 M NaClO4.

 Cu++ nmr none 25°C U M K1=16.06 1986SAb (28517)2018

 Cu++ gl KCl 25°C 0.1M M K1=17.40 1975MNa (28518)2019
 K(Cu+HL)=11.70
 K(Cu+H2L)=9.08
 K(Cu+H3L)=6.72
 K(Cu+H4L)=2.11

By spectrophotometry: K1=17.75, K(Cu+H2L)=8.19, K(Cu+H3L)=5.35

C3H12O10P4 H6L (7924)

Tris(dihydroxy-phosphonylmethyl)phosphineoxide;

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

 Cu++ gl R4N.X 20°C 0.10M C K1=9.9 1977ANb (28606)2020
 K(Cu+H2L)=4.88
 K(CuHL+H)=5.31
 K(CuL+H)=7.71

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

 Cu++ gl non-aq 25°C 100% U M 1991CFa (28629)2021
 K(Cu(bpy)+L)=4.87
 K(Cu(bpy)+2L)=9.34
 K(Cu(bpy)+H+L)=10.669
 K(2Cu(bpy)2+L)=7.52

In DMSO, 0.1 M Bu4NClO4. Also data for ternary complexes with terpyridyl- and bis(2-pyridylcarbonyl)amidatecopper(II)

 Cu++ gl NaClO4 25°C 0.50M U T K1=2.20 1969TWa (28630)2022

K1(38 C)=1.92, K1(50 C)=1.63. By spec., 25 C, K1=2.26; by emf, K1=2.15

Cu++ oth NaClO4 25°C 0.50M U K1=2.06 1969TWa (28631)2023
Method: paper chromatography

C4H3N2O2Br H2L 5-Bromouracil CAS 51-20-7 (8651)
5-Bromo-2,4-dihydroxypyrimidine;

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

Cu++ gl NaNO3 25°C 0.10M C M 2000SSd (28678)2024
K(Cu+HL)=7.39
K(Cu+L+OH)=18.52
K(Cu+L+2OH)=21.64
K(CuLOH+OH)=3.11

Also data for ternary complexes.

C4H3N2O2F HL 5-Fluorouracil CAS 51-21-8 (4277)
5-Fluoro-2,4(1H,3H)-pyrimidinedione;

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

Cu++ gl NaNO3 25°C 0.10M U M K1=8.08 1996SGa (28687)2025
K(CuA+L)=9.88

A is adenine.

C4H3N3O3S H3L Thiovioluric CAS 23036-77-3 (2000)
2-Thio-4,5,6(H)-pyrimidinetetrone 5-oxime

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

Cu++ gl NaNO3 25°C 0.50M C K1=3.90 B2= 7.00 1984HNb (28709)2026

Cu++ gl NaNO3 25°C 0.10M C 1979DDb (28710)2027
K(Cu+H2L)=3.903
K(Cu+2H2L)=7.00

Cu++ gl diox/w 30°C 50% U K1=4.44 B2=8.35 1973CSb (28711)2028
Medium: 50% dioxan, 0.1 M NaClO4

C4H3N3O4 H3L Violuric acid CAS 26351-19-9 (1208)
2,4,5,6-(1H,3H)Pyrimidinetetrone-5-oxime, 5-isonitrosobarbituric acid;

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

Cu++ gl NaCl 25°C 0.10M C 2002K5a (28734)2029
K(Cu+H2L)=3.57

Also by spectrohpotometry: K(Cu+H2L)=3.79

Cu++ gl NaNO3 25°C 0.50M C K1=4.25 B2= 7.29 1984HNb (28735)2030

 Cu++ gl NaNO3 25°C 0.50M C M 1980VNa (28736)2031
 K(Cu+H2L)=4.25
 K(CuH2L+H2L)=3.04
 K(Cu+H2L+A)=7.40, A=dimethyl-1,3 violurate
 K(Cu+H2L+HB)=7.59, B=monomethylviolurate

Cu++ gl NaNO3 25°C 0.50M U K1=4.3 B2= 7.40 1978DDa (28737)2032

 C4H3N3O4 H3L Oxonic acid CAS 937-13-3 (1296)
 4,6-Dihydroxy-1,3,5-triazine-2-carboxylic acid; C3N3(OH)2.COOH

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

Cu++ sp NaClO4 20°C 0.20M U K1=8.13 1981LDa (28754)2033

 C4H3N3O5 H3L Dilituric acid CAS 480-68-2 (8715)
 5-Nitrobarbituric acid, 5-Nitro-2,4,6-pyrimidinetrione;

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

Cu++ gl KCl 25°C 0.05M C 2002MGb (28761)2034
 K(Cu+HL)=4.91
 K(CuHL+HL)=4.25

 C4H4N2 L Pyridazine CAS 289-80-5 (1484)
 1,2-Diazine, Pyridazine; cyclo(-N:N.CH:CH.CH:CH-)

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

Cu++ gl KNO3 25°C 0.50M U K1=1.52 B2=2.34 1988KLa (28765)2035
 B3=3.16

 C4H4N2 L Pyrazine CAS 290-37-9 (620)
 1,4-Diazine, Pyrazine;

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

Cu++ sp non-aq 20°C 100% U 1986MBc (28782)2036
 K(CuA+L)=0.70
 In CHCl3. CuA=cofacial binuclear bis(beta-diketone) copper(II) complex

 C4H4N2O2 HL Uracil CAS 66-22-8 (412)
 2,4-Dihydroxypyrimidone, 2,4-Pyrimidinedione;

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

Cu++ gl NaNO3 25°C 0.10M M M K1=5.49 2002SKa (28826)2037
 K(CuA+L)=5.70

A is picolylamine

Cu++ gl diox/w 25°C 50% M M K1=6.21 1999HEa (28827)2038
K(CuA+L)=3.89

Medium: 50% v/v dioxane/H2O, 0.1 M NaNO3. H2A: tetracycline.

Cu++ gl NaNO3 37°C 0.10M U M K1=4.36 1994MGd (28828)2039
B(CuAL)=8.85
*K(CuAL)=-6.48
*K(Cu(OH)AL)=-8.78

HA is 6-aminopenicillanic acid.

Cu++ gl NaNO3 37°C 0.15M U K1=4.55 1990CIa (28829)2040
B(CuHL)=11.22
B(Cu2L2)=12.71

Cu++ gl NaNO3 25°C 0.10M U K1=4.97 B2=10.06 1989MPa (28830)2041

Cu++ gl KNO3 35°C 0.10M U M K1=6.04 1989SRc (28831)2042
K(Cu(thiamine)+L)=5.67

Cu++ gl KNO3 25°C 0.10M U T H K1=6.14 1983KSa (28832)2043

Cu++ gl KNO3 35°C 0.10M U K1=6.04 B2=11.23 1981TSa (28833)2044

Cu++ gl KNO3 45°C 0.10M U K1=5.6 1974KKa (28834)2045

Cu++ kin oth/un 25°C dil U K1=4.5 1968KYb (28835)2046

C4H4N2O2 H2L CAS 123-33-1 (8346)
3,6-Dihydroxypyridazine;

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

Cu++ vlt mixed 25°C 30% C T H K1=13.16 1992SBb (28872)2047
Method: polarography. Medium: 30% DMSO/H2O, 0.10 M LiClO4.
Data for 15 and 35 C. DH(K1)=-59.1 kJ mol⁻¹, DS(K1)=-38 J K⁻¹ mol⁻¹.

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

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

Cu++ gl NaClO4 31°C 0.10M U T H K1=7.63 B2=13.48 1984SJa (28879)2048
Also data for 18 and 42 C. DH(K1)=-104 kJ mol⁻¹, DS(K1)=-196 J K⁻¹ mol⁻¹
DH(K2)=-57.2, DS(K2)=-76.8.

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

Cu++ gl NaCl 25°C 0.1M U K1=3.07 2000KSb (28906)2049

Cu++ gl alc/w 30°C 50% U K1=9.40 1988TGd (28907)2050

C4H4N2S HL CAS 1450-85-7 (1521)
2-Mercapto-1,3-diazine, 2-Mercaptopyrimidine; C4H3N2.SH

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

Cu++ gl KNO3 30°C 0.50M U K1=6.0 B2=12.26 1989WIa (28926)2051
B3=16.9

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

Cu++ gl KNO3 30°C 0.10M U K1=5.7 1983SKa (28944)2052

Cu++ gl KNO3 45°C 0.10M U K1=5.0 1973TKa (28945)2053

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

Cu++ gl alc/w 25°C 50% U M K1=12.24 1978MCb (28958)2054
K(Cu(bpy)+L)=10.84
K(Cu(phen)+L)=11.07
K(Cu(NTA)+L)=5.53

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

Cu++ gl NaNO3 25°C 0.10M C M K1=4.07 B2= 6.96 1998KRa (29005)2055
B(CuLA)=8.89

HA: inosine

Cu++ gl alc/w 25°C 40% U M K1=5.08 B2= 9.58 1994AKa (29006)2056
Medium: 40% v/v EtOH/H2O, 0.10 M NaClO4
Data for ternary complexes with picolinamide.

Cu++ gl KNO3 25°C 0.10M M M K1=4.694 1993AEa (29007)2057

Cu++ gl KNO3 25°C 0.10M C M K1=3.42 1993AEb (29008)2058
K(Cu(AMP)+L)=5.63
K(Cu(ADP)+L)=6.18

K(Cu(ATP)+L)=6.91

B(CuL(AMP))=8.83

B(CuL(ADP))=12.23, B(CuL(ATP))=13.31.

Cu++ gl NaCl 37°C 0.15M C M K1=3.57 B2=5.50 1988BCc (29009)2059

B(CuH-1L)=-3.51

B(CuH2L2)=15.35

Ternary complex with enalapril

Cu++ gl KNO3 25°C 0.10M U M K1=4.02 B2=6.84 1988NSb (29010)2060

B(CuLA)=9.39

H2A=malonic acid

Cu++ gl NaClO4 25°C 0.10M U M K1=2.88 1987NDa (29011)2061

K(CuA+B+L)=14.53

H2A=iminodiethanoic acid, H2B=oxydiethanoic acid

Cu++ gl KNO3 25°C 0.10M U M K1=4.02 B2=6.84 1984Vsa (29012)2062

B(CuLA)=8.15

K(CuA+L)=4.66

K(CuL+A)=4.13

H2A=phthalic acid

Cu++ vlt KNO3 25°C 1.0M C K1=4.43 B2= 6.90 1982GAa (29013)2063

Method: polarography.

Cu++ vlt KNO3 25°C 1.0M C M K1=4.43 B2= 6.90 1982GVa (29014)2064

B(Cu(en)L)=15.51

Method: polarography. From potentiometric measurements K(H+L)=6.26

Medium: pH 8.0

Cu++ gl KNO3 25°C 0.10M U M K1=3.42 B2=5.10 1980GMb (29015)2065

B(CuLA)=12.69

A=histamine

Cu++ gl NaClO4 30°C 0.10M U K1=3.43 1980NSd (29016)2066

Cu++ gl NaClO4 25°C 0.10M C H K1=3.40 1978GCa (29017)2067

By calorimetry, DH1=14.4 kJ mol⁻¹, DS1=114 J K⁻¹ mol⁻¹

Cu++ gl oth/un 25°C 0.10M U M K1=3.40 B2=5.48 1976Bmb (29018)2068

B(Cu(bpy)(malate))= 11.89

Cu++ vlt KNO3 28°C 1.50M U K1=3.18 B2=4.72 1975KNa (29019)2069

Cu++ vlt NaClO4 25°C 0.20M U K1=3.4 B2=4.9 1967NMa (29020)2070

B3=6.2

Cu++ gl oth/un 25°C 0.10M U K1=3.4 1960YYa (29021)2071

Cu++ gl oth/un 25°C ->0 U K1=3.90 1951PJb (29022)2072

 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

Cu++ gl KNO3 25°C 0.10M U M K1=3.19 1988NSb (29172)2073
 B(CuLA)=6.28

H2A=malonic acid

 Cu++ gl KNO3 25°C 0.10M U M K1=3.19 1984Vsa (29173)2074
 B(CuLA)=6.75
 K(CuA+L)=3.26
 K(CuL+A)=3.58

H2A=phthalic acid

 Cu++ gl oth/un 25°C ->0 U K1=2.51 1951PJb (29174)2075

 C4H4O5 H2L Oxobutanedioic CAS 328-42-7 (1733)
 2-Oxosuccinic acid, Oxalacetic acid; HOOC.CH2.CO.COOH

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

Cu++ gl NaClO4 25°C 0.50M U TI K1=3.81 1990Mof (29243)2076
 At 0.1 M, K1=4.22; at 0.2 M, K1=3.98. At 30 C and 0.5 M, K1=3.75.

 Cu++ gl KCl 25°C 0.10M U K1=4.16 1976RLa (29244)2077
 B(Cu2H-1L)=2.55
 B(Cu2H-2L)=1.43

 Cu++ sp NaClO4 25°C 0.20M U K(Cu+HL)=3.9 1972DTa (29245)2078

By kinetics: K(Cu+HL)=4.0

 Cu++ gl oth/un 25°C 0.10M U K1=4.9 1958GHc (29246)2079

 C4H5NO L Methylisoxazole CAS 5765-44-6 (2045)
 5-Methylisoxazole; C3H2NO.CH3

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

Cu++ EMF KNO3 25°C 0.50M U K1=0.08 B2=0.93 1977LKa (29286)2080
 Ag/Ag+ concentration cell, competitive method

 C4H5NOF6 L CAS 68982-08-1 (5453)
 1,1-Bis(trifluoromethyl)-2-aminoethan-1-ol; (CF3)2C(OH).CH.NH2

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

Cu++ gl oth/un 25°C 0.10M U B2=13.16 1977Cwa (29292)2081

C4H5NO2 HL Succinimide CAS 123-56-8 (390)
Succinic acid imide; (CH2.CO)2NH

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

Cu++ gl KNO3 25°C 0.50M U H K1=4.61 B2= 8.75 1979BEc (29300)2082
By calorimetry: DH(K1)=-16.4 kJ mol⁻¹, DS(K1)=19.1 J K⁻¹ mol⁻¹;
DH(B2)=-33.6, DS(B2)=54.8.

Cu++ sp alc/w ? 100% U 1971MSc (29301)2083
B4=11.33

Cu++ gl oth/un 30°C ? U K1=3.5 B2=8.20 1965JKa (29302)2084

C4H5NS L 4-Methiazole CAS 693-95-5 (820)
4-Methylthiazole; C3H2NS.CH3

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

Cu++ gl KNO3 25°C 0.50M U K1=1.39 B2=2.34 1976LKb (29321)2085
B3=2.90

C4H5N2Cl L CAS 872-49-1 (7589)
5-Chloro-1-methylimidazole;

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

Cu++ gl NaNO3 25°C 0.50M M K1=3.51 1998KSa (29328)2086

C4H5N3 L CAS 109-12-6 (1480)
2-Amino-1,3-diazine; C4H3N2.NH2

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

Cu++ gl KNO3 25°C 0.50M U K1=0.90 B2=1.46 1988KLa (29339)2087

C4H5N3O HL Cytosine CAS 71-30-7 (1096)
2-Oxy-6-aminopyrimidine;

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

Cu++ gl diox/w 25°C 50% M K1=3.35 1999HEa (29366)2088
Medium: 50% v/v dioxane/H2O, 0.1 M NaNO3.

Cu++ gl NaClO4 25°C 0.10M M 1995LWa (29367)2089
K(Cu+HL)=1.82
K(Cu(atp)+HL)=1.32

Cu++ gl NaNO3 37°C 0.10M U M K1=1.85 1994MGd (29368)2090
 B(CuAL)=6.57
 *K(CuAL)=-6.52

HA is 6-aminopenicillanic acid.

 Cu++ gl NaNO3 25°C 0.10M U K1=6.49 B2=13.24 1989MPa (29369)2091

Cu++ gl KNO3 35°C 0.10M U M K1=2.73 1989SRe (29370)2092
 B(CuHLAsp)=13.46
 K(CuL+Gly)=7.87

Cu++ gl KNO3 35°C 0.10M U M 1986RRe (29371)2093
 K(Cu+HL+A)=12.94
 K(Cu+HL+D)=10.07
 K(Cu+HL+C)=13.59

HA is glycine; H2D is oxalic acid; C is histamine.

 Cu++ gl KNO3 35°C 0.10M U T H 1983Ksa (29372)2094
 K(Cu+HL)=2.73
 K(Cu+2HL)=3.39

Cu++ gl KNO3 30°C 0.10M U K1=7.0 1983SKa (29373)2095

Cu++ gl KNO3 45°C 0.10M U 1978KJa (29374)2096
 K(Cu+HL)=2.82
 K(CuHL+HL)=2.48

Cu++ gl KNO3 45°C 0.10M U 1974KKa (29375)2097
 K(Cu+HL)=3.1

Cu++ sp NaClO4 25°C 0.05M U 1969RWa (29376)2098
 K(Cu+HL)=1.40
 K(CuHL+HL)=1.25

Cu++ gl oth/un 25°C 0.16M U 1961MAb (29377)2099
 K(Cu+HL)=2.0

C4H5N3O2 HL (1327)
 4-Oximino-3-methyl-2-pyrazolin-5-one;

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

Cu++ gl alc/w 20°C 50% U T K1=5.67 B2=9.97 1981SSc (29425)2100
 At 30 C: K1=5.67, B2=9.81

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

Cu++ gl NaClO4 30°C 0.10M M I K1=2.20 1985ARc (29433)2101
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=4.56

C4H6NO3Cl HL CAS 52316-61-7 (7550)
N-Chloroacetyl glycine; ClCH2CONHCH2COOH

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

Cu++ gl NaNO3 25°C 0.10M C M K1=4.11 1998MSd (29441)2102
B(CuL2(bpy))=12.43
B(CuL2(phen))=13.777
B(CuH-1L(bpy))=5.92
B(CuH-1L(phen))=7.64

C4H6N2 L 2-Me-Imidazole CAS 693-98-1 (122)
2-Methyl-1,3-diazole; C3H3N2.CH3

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

Cu++ gl KCl 25°C 0.10M C B(Cu2L)=12.95 2003GRb (29455)2103

Cu++ gl NaClO4 30°C 0.20M U K1=5.28 1999PGa (29456)2104

Cu++ gl NaNO3 30°C 0.20M U K1=5.32 1999PPa (29457)2105

Cu++ gl NaClO4 25°C 0.10M C K1=3.75 1994MGb (29458)2106

Cu++ gl KNO3 25°C 0.10M C M K(CuA+L)=4.29
K(CuAL+L)=3.14

HA=ethanoic acid.

Cu++ gl KNO3 25°C 0.50M U K1=3.35 B2=6.38 1974LKa (29460)2108
B3=9.23
B4=11.92
B5=14.45

C4H6N2 L Methylpyrazole CAS 453-58-3 (368)
3-Methyl-1,2-diazole; C3H3N2.CH3

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

Cu++ gl KNO3 25°C 0.50M U K1=2.44 B2=4.49 1978LNa (29497)2109
B3=6.15
B4=7.41

C4H6N2 L CAS 7554-65-6 (2052)
4-Methyl-1,2-diazole; C3H3N2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	U			K1=2.70 B2=4.97 B3=6.81 B4=8.19	1978LKc	(29508)2110

C4H6N2 L 4-Me-Imidazole CAS 822-36-6 (353)
4-Methyl-1,3-diazole; C3H3N2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C	M		K(CuA+L)=4.34 K(CuAL+L)=3.85	1989IOd	(29517)2111

HA=ethanoic acid.

Cu++	gl	KNO3	25°C	0.50M	U			K1=4.18 B2=7.74 B3=10.70 B4=13.05 B5=13.95	1981LKa	(29518)2112
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Cu++	cal	non-aq	25°C	100%	U	HM		K(Cu(hfac)2+L)=7.0	1976MDb	(29519)2113
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Medium: CCl4. M: Bis(hexafluoroacetylacetonato)copper(II), (Cu(hfac)2)
DH=-65 kJ mol⁻¹

Cu++	gl	oth/un	25°C	0.15M	U			K1=4.13 K3=2.87 K4=1.96	1957NGa	(29520)2114
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C4H6N2 L N-Me-Imidazole CAS 616-47-7 (354)
N-Methyl-1,3-diazole; C3H3N2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	25°C	0.50M	M			K1=4.23	1998KSa	(29543)2115
Cu++	gl	KNO3	25°C	0.10M	C	M		K(CuA+L)=4.41 K(CuAL+L)=3.56	1989IOd	(29544)2116

HA=ethanoic acid.

Cu++	cal	NaNO3	25°C	1.0M	C			DH(K1)=-28.70 kJ mol ⁻¹ , DS(K1)=-14.0 J K ⁻¹ mol ⁻¹ .	1983ARa	(29545)2117
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Cu++	gl	KNO3	25°C	0.50M	M			K1=4.30 B2= 7.94 B3=10.96 B4=13.33 B5=14.93	1977LBb	(29546)2118
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Cu++ gl KNO3 25°C 0.15M U K1=4.22 B2=7.76 1954LWa (29547)2119
K3=2.89
K4=2.21

C4H6N2O L CAS 13148-65-7 (2050)
2,5-Dimethyl-1,3,4-oxadiazole; C2N2O(CH3)2

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

Cu++ ISE KNO3 25°C 0.50M U K1=-0.22 B2=1.87 1977LGa (29610)2120
B3=2.49

Competition with Ag

C4H6N2O L CAS 39799-77-4 (4263)
2-Hydroxymethyl-1,3-diazole; C3H3N2.CH2OH

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

Cu++ gl NaClO4 25°C 3.00M U K1=4.27 B2=8.19 1968WIa (29616)2121
K3=3.13
K4=2.10

C4H6N2O L CAS 32673-41-9 (2684)
4-(Hydroxymethyl)imidazole; C3H3N2.CH2OH

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

Cu++ gl NaClO4 25°C 0.10M C K1=3.96 B2=7.26 1985LSc (29619)2122
K3=2.76
K4=2.15
K(CuL=CuH-1L+H)=-6.53
K(CuL3=CuH-1L3+H)=-7.10

Cu++ gl NaClO4 25°C 3.00M U K1=4.25 B2=8.15 1968WIa (29620)2123
K3=3.11
K4=2.08

C4H6N2O5 H2L CAS 25081-31-6 (3003)
N-Nitrosoiminodiethanoic acid; O:N.N(CH2.COOH)2

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

Cu++ gl KCl 30°C 0.10M U K1=1.9 1957TBb (29626)2124

C4H6N2O6 H2L CAS 25081-33-8 (3004)
N-Nitroiminodiethanoic acid; O2N.N(CH2.COOH)2

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

Cu++ gl KCl 30°C 0.10M U K1=2.0 1957TBb (29632)2125

C4H6N2S L CAS 27464-82-0 (1457)
2,5-Dimethyl-1,3,4-thiadiazole; C2N2S(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	U			K1=1.08 B2=1.94	1985GLa (29638)	2126

Competitive potentiometric method using Ag(I) as an auxiliary cation
Using spectrophotometry, K1=1.02, B2=1.86, B=2.39

C4H6N2S HL Methimazole CAS 60-56-0 (1824)
N-Methyl-2-mercaptoimidazole; C3H2N2(CH3).SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	KNO3	25°C	0.50M	C			K1=9.04	1977LWa (29654)	2127

C4H6N4O L CAS 56-06-4 (5994)
2,4-Diamino-6-hydroxypyrimidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	45°C	0.10M	C			K(Cu+HL)=3.20	1986KZa (29669)	2128

C4H6N4O L (1012)
4(5)-Aminoimidazole-5(4)-carboxamide; H2N.CO.C3H2N2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	C			K1=3.54 B2= 5.76	1998TSa (29673)	2129
Cu++	gl	NaClO4	25°C	0.10M	C			K1=1.77	1998TSa (29674)	2130

C4H6N4O L CAS 1672-50-0 (5993)
4,5-Diamino-6-hydroxypyrimidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	45°C	0.10M	C			K(Cu+HL)=4.52 K(CuHL+HL)=4.3	1986KZa (29677)	2131

C4H6N4O3S2 L (6481)
2-Acetylamino-1,3,4-thiadiazole-5-sulphonamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	alc/w	25°C	50%	U			B(Cu2L2)=18.361	1990FBb (29686)	2132

B(Cu2H-1L2)=11.75

B(CuH-2L2)=2.69

B(CuL2(OH))=5.39

C4H6O2 HL But-3-enoic ac. CAS 625-38-7 (2989)
But-3-enoic acid; CH2:CH.CH2.COOH

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

Cu++ sol NaClO4 25°C 0.10M U K1=4.53 1949KAa (29728)2133

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

Cu++ gl NaClO4 31°C 0.10M U K1=2.69 1976RRb (29734)2134

C4H6O2S2 HL CAS 2224-02-4 (1225)
1,2-Dithiolane-3-carboxylic acid, Tetranorlipoic acid; C3H5S2.COOH

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

Cu++ gl NaClO4 25°C 0.10M C K1=3.07 1978SPd (29738)2135

C4H6O3 HL CAS 600-18-0 (5474)
2-Ketobutanoic acid; CH3.CH2.CO.COOH

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

Cu++ gl KCl 25°C 0.10M C K1=2.15 B2=3.99 1982KMc (29744)2136

C4H6O3 HL Acetoacetic aci CAS 541-50-4 (5475)
3-Ketobutanoic acid; CH3.CO.CH2.COOH

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

Cu++ gl KCl 25°C 0.10M C K1=1.39 B2=2.37 1982KMc (29748)2137

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

Cu++ gl KNO3 25°C 0.10M C M 2002BMa (29829)2138

K(CuL+A)=9.03

K(CuL+B)=10.52

HA is 1,2,4-triazole; HB is 3-amino-1,2,4-triazole.

Cu++ gl NaNO3 25°C 0.10M C M K1=3.20 1998KRa (29830)2139

B(CuLA)=8.38

HA: inosine.

Cu++	gl	KNO3	25°C	0.10M	U		K1=3.02		1998VZa (29831)	2140
							K(Cu+HL)=1.99			

Cu++	gl	KNO3	25°C	0.1M	C		K1=3.02		1998VZa (29832)	2141
							K(Cu+HL)=1.99			

Also K1=2.98 found by specrophotometry

Cu++	gl	NaNO3	25°C	0.10M	U	M	K1=6.75		1997ISd (29833)	2142
							K(CuL+gly)=7.85			
							K(CuL+ala)=6.78			
							K(CuL+leu)=6.20			
							K(CuL+asp)=8.10			

Cu++	gl	alc/w	25°C	40%	U	M	K1=4.75	B2= 9.00	1994AKa (29834)	2143
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Medium: 40% v/v EtOH/H2O, 0.10 M NaClO4
Data for ternary complexes with picolinamide.

Cu++	gl	NaClO4	25°C	1.0M	C	M	K1=2.404		1994FGa (29835)	2144
							K(Cu+HL)=1.50			
							K(CuL+A)=0.96			

HA=ethanoic acid

Cu++	gl	KNO3	25°C	0.10M	M	M	K1=5.768		1993AEa (29836)	2145
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Cu++	gl	KNO3	25°C	0.10M	C	M	K1=2.98		1993AEb (29837)	2146
							K(Cu(AMP)+L)=5.82			
							K(Cu(ADP)+L)=6.35			
							K(Cu(ATP)+L)=7.25			
							B(CuL(AMP))=9.02			

B(CuL(ADP))=12.40, B(CuL(ATP))=13.65.

Cu++	vlt	KNO3	30°C	0.10M	C	M	K1=2.60	B2= 4.30	1991STb (29838)	2147
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Method: polarography. Medium pH 9.5.
Ternary complexes with 2-amino-3-hydroxypyridine

Cu++	vlt	KNO3	30°C	0.10M	C	M	K1=2.60	B2= 4.30	1991STb (29839)	2148
							B(CuAL)=10.9			

Method: polarography, medium pH 9.5. HA is 2-amino-3-hydroxypyridine.

Cu++	gl	NaClO4	25°C	0.10M	U		K1=2.59	B2=4.30	1990MPa (29840)	2149
							B(CuHL)=7.03			
							B(CuHL2)=9.59			

Cu++	ISE	NaClO4	25°C	0.10M	C		K1=3.98		1989COb (29841)	2150
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Cu++	gl	KNO3	25°C	0.10M	U	M	K1=3.23		1988NSb (29842)	2151
							B(CuLA)=8.16			

H2A=malonic acid

Cu++ gl NaClO4 25°C 0.10M U M K1=2.49 1987NDa (29843)2152
K(CuA+B+L)=12.34

H2A=iminodiethanoic acid, H2B=oxydiethanoic acid

Cu++ gl NaClO4 30°C 0.10M M I K1=2.58 1985ARc (29844)2153
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=4.25.

Cu++ vlt KNO3 25°C 1.0M C K1=4.0 B2= 6.57 1982GAa (29845)2154
Method: polarography.

Cu++ vlt KNO3 25°C 1.0M C M K1=4.20 B2= 6.57 1982GVa (29846)2155
B(Cu(en)L)=15.29

Method: polarography. From potentiometric measurements K(H+L)=5.69
Medium: pH 8.0

Cu++ gl KNO3 25°C 0.10M U M K1=2.68 B2=3.7 1980GMB (29847)2156
B(CuHL)=7.14
B(CuLA)=11.93
B(CuHLA)=16.47

A=histamine

Cu++ gl NaClO4 35°C 0.10M U M K1=2.60 1980MPb (29848)2157
B(CuLA)=8.25

H2A=malonic acid

Cu++ gl NaClO4 30°C 0.10M U K1=2.57 1980NSd (29849)2158

Cu++ gl NaClO4 25°C 0.10M C H K1=2.61 1978GCa (29850)2159
By calorimetry, DH1=11.3 kJ mol⁻¹, DS1=88 J K⁻¹ mol⁻¹

Cu++ gl NaClO4 25°C 1.00M U 1978KCa (29851)2160
B(CuHL)=6.66
B(Cu2L)=3.70

Cu++ vlt KNO3 28°C 1.50M U K1=2.00 B2=4.03 1975KNa (29852)2161

Cu++ gl KNO3 25°C 0.10M C M 19750Da (29853)2162
K(Cu+HL)=1.87
K(Cu(bpy)+HL)=2.11
K(Cu(bpy)+L)=3.09
K(Cu+HL+bpy)=10.26

Cu++ gl NaClO4 30°C 0.10M U M 1975SJa (29854)2163
B(CuL(phthalate))=6.70
B(CuL(adipate))=7.05
B(CuL(sulphosalicylate))=8.50
B(CuL(dinitrosalicylate))=7.6

Cu++ ISE NaClO4 25°C 0.20M U I K1=2.26 1967Mnc (29855)2164
At I=0: K1=3.22

Cu++ cal KCl 25°C 0.10M U H 1967Mnc (29856)2165
DH(K1)=19.1 kJ mol⁻¹, DS=126 J K⁻¹ mol⁻¹

Cu++ gl NaClO4 20°C 0.10M U K1=2.93 1963CAa (29857)2166
K(Cu+HL)=1.70

Cu++ gl oth/un 25°C 0.10M U K1=2.6 1960YYa (29858)2167

Cu++ gl oth/un 25°C ? U K1=3.3 1958GHc (29859)2168

Cu++ gl oth/un 25°C ->0 U K1=3.33 1951PJb (29860)2169

C4H6O4 HL Acetoxyacetic a CAS 13831-30-6 (4249)
Acetoxyethanoic acid; CH3.CO2.CH2.COOH

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

Cu++ gl NaNO3 30°C 0.40M U K1=1.22 1970BTa (30080)2170

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

Cu++ gl NaClO4 30°C 0.10M M I K1=5.13 B2= 8.66 1985ARc (30101)2171
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=8.48, K2=5.90.

Cu++ gl NaClO4 30°C 0.10M U K1=5.13 B2= 8.66 1983SHd (30102)2172

Cu++ gl NaClO4 25°C 0.10M U K1=4.89 B2=7.49 19680Va (30103)2173
K(Cu+HL)=1.66

Cu++ con oth/un 25°C .001M U K1=5.19 1931IRb (30104)2174

Cu++ ISE oth/un 25°C 0.10M U B2=8 1930RIa (30105)2175

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

Cu++ gl KNO3 35°C 0.10M C M K1=4.53 1999DSb (30169)2176
B(CuAL)=6.70

A is thiamine hydrochloride.

Cu++ gl KNO3 35°C 0.10M U M 1990RSd (30170)2177
B(Cu(asp)L)=7.50

K(CuL+en)=9.39
K(CuL+his)=9.08
K(CuL+A)=3.46

K(CuL+met)=6.60, K(CuL+ox)=3.36, K(CuL+B)=7.00, K(CuL+trp)=7.33,
K(CuL+HC)=6.97. A is imidazole, HB is phenylalanine, H2C is tyrosine.

Cu++ gl KNO3 30°C 0.10M U M K1=4.52 B2=7.44 1989SRd (30171)2178
B(CuLA)=11.13
B(CuLC)=11.62

HA=4-amino-5-mercapto-1,2,4-triazole, HC=4-amino-5-mercapto-3-methyltriazole

Cu++ vlt KNO3 25°C 0.60M C K1=4.54 1985CEa (30172)2179
Method: differential pulse polarography, using anodically generated Hg++
as indicator ion.

Cu++ gl NaClO4 30°C 0.10M C M 1985SHb (30173)2180
B(CuAL)=8.93
K(CuL+A)=3.98
K(CuA+L)=4.35
B(CuBL)=9.07

K(CuL+B)=4.13, K(CuB+L)=4.49. H2A is ethylmalonic acid, H2B is
diethylmalonic acid.

Cu++ gl NaClO4 25°C 0.10M U TIH K1=4.63 B2= 7.44 1984DBa (30174)2181
Data for 35 and 45 C and I=0.2 and 0.3 M. At I=0, K1=4.60, K2=2.79.
DH(B2)=-13.9 kJ mol⁻¹, DS(B2)=92.7 J K⁻¹ mol⁻¹.

Cu++ gl NaClO4 30°C 0.10M U M 1983SHd (30175)2182
B(CuLA)=9.02
K(CuL+A)=4.44
K(CuA+L)=3.89
B(CuLB)=8.34

H2A is methylmalonic acid, H2B is dimethylmalonic acid.
K(CuL+B)=3.76, K(CuB+L)=3.52.

Cu++ gl NaClO4 25°C 0.10M U M 1982ABe (30176)2183
K(Cu(tpy)+L)=2.1
B(Cu(tpy)L)=14.4
K(Cu(tpy)+HL)=2.71
B(CuH(tpy)L)=19.1

K(Cu(tpy)+CuL=Cu(tpy)L+Cu)=-2.4. tpy: 2,2',2''-terpyridine.

Cu++ gl NaClO4 25°C 0.10M C HM 1979CRa (30177)2184
B(CuL(bpy))=12.41
B(CuHL(bpy))=14.0

DH(CuL(bpy))=-40.6 kJ mol⁻¹, DS=101, DH(CuHL(bpy))=-35.0, DS=151

Cu++ gl NaClO4 25°C 3.0M C K1=4.63 B2=7.86 1979RWa (30178)2185
B(CuHL)=6.35

Cu++ gl NaClO4 25°C 0.10M C TI M K1=4.45 B2=7.05 1978AMb (30179)2186
K(Cu+HL)=2.60

Ternary data with 2,2'-bipyridyl

Cu++ gl oth/un 20°C 0.10M U K1=4.57 1961COa (30180)2187
K(Cu+HL)=3.18

Cu++ gl NaClO4 20°C 1.00M U K1=4.18 B2=7.08 1961SAa (30181)2188
B3=8.6
B4=11.9(?)

Cu++ oth NaClO4 20°C 1.0M U K1=4.18 B2=7.08 1960SAa (30182)2189
B3=8.6
B4=11.9

Cu++ gl oth/un 25°C 0.10M U K1=4.3 1960YYa (30183)2190

Cu++ gl KCl 30°C 0.10M U K1=4.5 B2=7.3 1957TBb (30184)2191

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

Cu++ gl NaClO4 30°C 0.10M U K1=7.06 B2=13.45 1988NDa (30280)2192

Cu++ gl NaClO4 30°C 0.10M M I K1=5.60 B2= 8.50 1985ARc (30281)2193
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=8.48, K2=4.54.

Cu++ nmr NaClO4 25°C 0.10M U K1=16.2 K2=<7.6 1978LMb (30282)2194
K(Cu+H3L=CuL+3H)=-2.4

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

Cu++ gl NaClO4 30°C 0.10M M I K1=3.90 B2= 5.40 1985ARc (30388)2195
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=7.13, K2=4.05.

C4H6O4S2 H2L CAS 505-73-7 (3585)
Dithiodiethanoic acid; HOOC.CH2.S.S.CH2.COOH

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

Cu++ gl NaClO4 30°C 0.10M C M K1=3.46 1985SHb (30404)2196
B(CuAL)=8.11
K(CuL+A)=3.16
K(CuA+L)=4.65
B(CuBL)=8.29

K(CuL+ala)=6.45
K(CuL+leu)=5.92
K(CuL+asp)=7.90

Cu++ sp KCl 25°C 0.10M C K1=3.67 1996DPa (30517)2205
B(CuHL)=6.78
B(Cu2H-1L2)=5.15
B(Cu2H-2L2)=0.99

Method: ultraviolet circular dichroism.

Cu++ gl KNO3 25°C 0.10M C M K1=4.22 1993AEb (30518)2206
K(Cu(AMP)+L)=5.74
K(Cu(ADP)+L)=6.28
K(Cu(ATP)+L)=6.99
B(CuL(AMP))=8.94

B(CuL(ADP))=12.33, B(CuL(ATP))=13.39.

Cu++ gl NaNO3 25°C 0.50M M M 1989MAa (30519)2207
B(-3,1,1)=-6.1
K(2CuH-2L=Cu2H-4L2)=-14.5

B(p,q,r): pH+qM+rH2L. K(UO2+Cu+2H2L=UO2CuH-4L2+8H)= 1.11

Cu++ gl NaClO4 25°C 0.50M C K1=3.39 1986LJa (30520)2208
B(CuHL)=6.55
B(CuH-1L)=-0.99

Above results for S(-)-Malic acid. For R,S-Malic acid K1=3.40, B(CuHL)=6.31
B(Cu2H-2L2)=16.22

Cu++ gl NaClO4 30°C 0.10M M I K1=3.20 B2= 5.10 1985ARc (30521)2209
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=5.48, K2=4.30.

Cu++ sp NaNO3 25°C 0.50M U M 1979KRa (30522)2210
B(Cu2Y2H-5L3)=-9.74

Binuclear species: Cu++/Y+++.

Cu++ gl NaClO4 25°C 1.00M U 1978KCa (30523)2211
B(CuHL)=6.51
B(Cu2L)=4.40

Cu++ vlt KNO3 24°C 1.50M U K1=3.98 B2=4.92 1978KNb (30524)2212

Cu++ sp NaNO3 25°C 0.50M U K1=14.68 1978KPc (30525)2213
B(CuH2L)=22.05
B(CuHL)=19.08
B(Cu2L2)=30.27
B(CuH2L2)=35.98

Malic acid defined as H3L with protonation constants K1=15.46, K2=4.49,
K3=3.14

Cu++ sp NaNO3 20°C 1.00M U K1=4.03 B2=6.26 1976HBd (30526)2214

 Cu++ sol KCl 25°C 0.10M U T H K1=4.53 1975DNc (30527)2215
 K(Cu+HL)=2.44

DH(K1)=45.93 kJ mol⁻¹ and DS(K1)=241 J mol⁻¹ K⁻¹. DH(K)=37.0 kJ mol⁻¹
 DS(K)=171 J mol⁻¹ K⁻¹. Values also at 35 and 45 C

 Cu++ gl KNO3 25°C 1.00M U K1=3.33 1975GCa (30528)2216
 B(CuHL)=6.49
 B(Cu2L2)=8.40
 B(Cu2H-1L2)=4.64
 B(Cu2H-2L2)=0.31

 Cu++ gl NaClO4 30°C 0.20M U K1=8.43 1975JBb (30529)2217

 Cu++ gl KNO3 25°C 0.10M C M 19750Da (30530)2218
 B(CuHL)=6.73
 K(Cu+HL)=2.09
 K(Cu+HL+bpy)=10.48
 K(Cu(bpy)+L)=3.82

 Cu++ vlt NaNO3 ? 1.00M U K1=4.22 B2=5.42 1973ZGa (30531)2219
 K(Cu+HL)=2.83
 K(Cu+2HL)=4.32

 Cu++ sp NaClO4 30°C 0.10M U K1=3.97 1968RSk (30532)2220
 K(2Cu+L)=7.71

 Cu++ gl KNO3 25°C 1.0M U 1967RMb (30533)2221
 K(2Cu+2L)=8.0
 K(Cu2(H-1L)2+2H)=7.8

 Cu++ sp NaClO4 29°C 1.0M U K1=3.43 1965MNa (30534)2222

 Cu++ gl NaClO4 20°C 0.10M U 1963CAa (30535)2223
 K(Cu+H2L)=2.00
 K(Cu+HL)=3.42
 K(CuL+H)=4.54

 Cu++ gl NaClO4 20°C 1.0M U I K1=3.4 1957LEa (30536)2224
 K(Cu+HL)=3.3
 B(Cu2L2(OH)2)=28.9

In 4 M NaClO4: B2=6.2

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

 Cu++ gl NaClO4 25°C 0.10M U M K1=3.80 1989NDb (30803)2225
 B(CuBL)=7.78

B(CuCL)=6.75

H2B is malonic acid, H2C is phthalic acid.

Cu++ gl NaClO4 25°C 0.10M U M K1=3.80 1987NDA (30804)2226
K(CuA+L)=9.09
K(CuA+L+B)=14.73
K(CuA+L+C)=13.83

H2A=iminodiacetic acid, H2B=maleic acid, H2C=malonic acid + others

Cu++ gl NaClO4 25°C 0.10M U TIH K1=3.95 1984DBa (30805)2227
Data for 35 and 45 C and I=0.2 and 0.3 M. At I=0, K1=3.91.
DH(K1)=-7.95 kJ mol⁻¹, DS(K1)=49.5 J K⁻¹ mol⁻¹.

Cu++ gl KCl 25°C 0.10M C K1=3.97 1984MMg (30806)2228
K(CuL+H)=1.39

Cu++ gl NaClO4 25°C 0.10M U M 1982ABe (30807)2229
K(Cu(tpy)+L)=1.8
B(Cu(tpy)L)=14.1
K(Cu(tpy)+HL)=2.53
B(CuH(tpy)L)=18.7
K(Cu(tpy)+CuL=Cu(tpy)L+Cu)=-2.4. tpy: 2,2',2"-terpyridine.

Cu++ gl NaClO4 25°C 0.10M C HM 1979CRa (30808)2230
B(CuL(bpy))=11.64
B(CuHL(bpy))=14.4
DH(CuL(bpy))=-29.9 kJ mol⁻¹, DS=122, DH(CuL(bpy)H)=-34.0, DS=163

Cu++ gl NaClO4 25°C 0.10M C TI M K1=4.18 B2=5.88 1978AMb (30809)2231
K(Cu+HL)=2.92

Ternary data with 2,2'-bipyridyl

Cu++ vlt NaClO4 25°C 0.40M C K1=3.1 B2= 4.70 1978NSa (30810)2232
B3=5.7
K(Cu+OH+L)=10.0
K(Cu+OH+2L)=11.9
K(Cu+2OH+L)=12.7

Method: polarography. Medium pH 3.0-8.6 and 9.4-11.5. K(Cu+2OH+2L)=14.6,
K(Cu+3OH+L)=15.8

Cu++ gl KNO3 25°C 0.10M U K1=3.93 1975MTc (30811)2233

Cu++ gl oth/un 20°C 0.10M U K1=3.70 1961COa (30812)2234
K(Cu+HL)=2.67

Cu++ gl oth/un 25°C 0.10M U K1=3.9 1960YYa (30813)2235

Cu++ gl KCl 30°C 0.10M U K1=3.9 1957TBb (30814)2236

C4H6O6 H2L D-Tartaric acid CAS 147-71-7 (93)

D-Tartaric acid, D-2,3-Dihydroxybutanedioic acid; HOOC.CH(OH).CH(OH).COOH

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

 Cu++ gl alc/w 25°C 50% C I K1=5.80 1986ZMb (30966)2237
 In 50% dioxan, K=6.18

Cu++ ISE KNO3 25°C 0.50M U K1=2.5 1984BSb (30967)2238
 B(CuHL)=5.5
 B(Cu2L2)=8.7
 B(Cu2H-1L2)=4.5
 B(Cu2H-2L2)=0.1
 B(Cu2H-3L2)=-7.0; B(Cu2H-4L2)=-17.3; B(Cu8H-10L6)= -7.5

Cu++ ISE NaClO4 25°C 1.00M C H K1=2.63 B2=4.39 1980JOa (30968)2239
 B(CuHL)=5.58
 B(Cu2L2)=8.60
 B(Cu2H-1L2)=4.20
 B(Cu2H-2L2)=-0.36

Cu++ oth NaClO4 20°C 1.0M U 1975JLb (30969)2240
 B(1,0,2)=4.7
 B(2,0,3)=11.20
 B(2,0,4)=11.8
 B(q,r,p): qCu+rH+pL=CuqHrLp

Cu++ ISE NaClO4 20°C 1.00M C 1975JOa (30970)2241
 Beff(1,1)=2.1
 Beff(3,1)=6.28
 Beff(2,2)=9.12
 Beff(6,4)=25.28
 Beff(8,4)=28.96; Beff(10,4)=31.28. Beff(q,p): qCu+pL=CuqLp. Valid at pH 4.4

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

 Cu++ gl NaNO3 25°C 0.10M U M K1=5.50 1997ISd (30992)2242
 K(CuL+gly)=7.35
 K(CuL+ala)=6.20
 K(CuL+leu)=5.10
 K(CuL+asp)=8.10

Cu++ sp NaClO4 25°C 0.1M C K1=0.60 B2=4.40 1993SKa (30993)2243

Cu++ gl NaNO3 25°C 0.50M M M 1989MAa (30994)2244
 B(-4,1,1)=-5.5
 K(2CuH-2L=Cu2H-4L2)=-13.4
 B(p,q,r): pH+qM+rH2L. K(UO2+Cu+2H2L=UO2CuH-4L2+8H)= 1.17

Cu++ ISE NaClO4 25°C 1.00M C H K1=2.65 B2=4.37 1980J0a (30995)2245
B(CuHL)=5.57
B(Cu2L2)=8.31
B(Cu2H-1L2)=3.99
B(Cu2L2H-2)=-0.52

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

Cu++ gl KNO3 25°C 0.10M C M K1=4.10 2002BMa (31099)2246
K(CuL+A)=8.80
K(CuL+B)=9.94

HA is 1,2,4-triazole; HB is 3-amino-1,2,4-triazole.

Cu++ gl NaNO3 25°C 0.10M C M K1=6.96 B2=12.66 1998KRa (31100)2247
B(CuLA)=11.74

HA: inosine.

Cu++ gl NaClO4 25°C 0.50M C K1=2.85 1995PLa (31101)2248
B(Cu2L2)=8.77
B(Cu2H-1L2)=4.38
B(CuHL)=5.60
B(Cu2H-2L2)=-0.25

B(Cu6H-7L4)=-5.40, B(Cu8H-10L6)=-7.52.

Cu++ gl KNO3 25°C 0.10M M M K1=4.992 1993AEa (31102)2249

Cu++ gl KNO3 25°C 0.10M C M K1=3.20 1993AEb (31103)2250
K(Cu(AMP)+L)=5.55
K(Cu(ADP)+L)=6.10
K(Cu(ATP)+L)=6.88
B(CuL(AMP))=8.75

B(CuL(ADP))=12.15, B(CuL(ATP))=13.28.

Cu++ vlt NaNO3 25°C 1.0M C M K1=3.60 B2= 5.75 1992KMa (31104)2251
B(Cu(iso-leu)L)=11.65
B(Cu(val)L)=11.13
B(Cu(thre)L)=10.85

Method: polarography. Medium: pH 8.0.

Cu++ vlt NaNO3 25°C 1.0M C M K1eff=3.60 1992KMa (31105)2252
B2eff=5.75
Beff(Cu(isoleucine)L)=11.65
Beff(Cu(val)L)=11.13

Method: differential pulse polarography. Medium: pH 8.0

B(Cu(threonine)L)=10.85

Cu ⁺⁺	oth	NaClO ₄	40°C	0.10M	C	K ₁ =3.41 B(Cu ₂ L ₂)=6.89	1982SYb (31106)2253
Method: paper electrophoresis. Medium: 0.10 M HClO ₄ .							
Cu ⁺⁺	oth	oth/un	40°C	0.10M	U	M	1981YSa (31107)2254 B(Cu ₂ L ₂ (NTA) ₂)=12.25
Method: paper electrophoresis							
Cu ⁺⁺	gl	NaClO ₄	30°C	0.10M	U	K ₁ =3.90 B ₂ =7.10	1980NSd (31108)2255
Cu ⁺⁺	gl	NaClO ₄	25°C	1.00M	U	K ₁ =3.15 B(CuHL)=4.70	1978KCa (31109)2256
Cu ⁺⁺	vlt	KNO ₃	24°C	1.50M	U	K ₁ =3.18 B ₂ =5.11	1978KNb (31110)2257
Cu ⁺⁺	oth	NaNO ₃	25°C	0.50M	U	M	K ₁ =3.39 B(Cu ₈ L ₆ (OH) ₁₀)=132.5 B(CuL ₂ (OH) ₂)=20.70
Method: optical rotation							
Cu ⁺⁺	ISE	NaNO ₃	25°C	0.50M	U	M	1972PPc (31112)2259 K(2Cu+Y+5OH+3L)=54.40
Cu ⁺⁺	gl	NaClO ₄	25°C	0.10M	U	K ₁ =3.34 B ₂ =5.68	1972RMa (31113)2260
Values quoted for meso form. K ₁ (dl)=3.52, K ₂ (dl)=2.52, B ₂ (meso-dl)=6.66							
Data also obtained by ion selective electrode							
Cu ⁺⁺	ISE	NaClO ₄	25°C	1.00M	U	K ₁ =2.70 B ₂ =4.00 K(Cu+L=Cu(H-1)L+H)=-2.6 K(2Cu+2L=Cu ₂ (H-2)L ₂ +2H)=-0.24 B(CuHL)=5.45 B(CuHL ₂)=7.52	1971BVb (31114)2261
Data for other complexes also available							
Cu ⁺⁺	gl	NaClO ₄	25°C	1.00M	U	K ₁ =2.70 B ₂ =4.00 B(CuHL)=5.45 B(CuHL ₂)=7.52 B(CuH ₂ L ₂)=10.44 B(Cu ₂ L ₂)=8.58	1969BLb (31115)2262
B(Cu ₂ L ₃)=9.55, B(Cu ₂ L ₄)=11.32							
Cu ⁺⁺	dis	NaClO ₄	20°C	0.10M	U	K ₁ =3.10 B ₂ =5.41	1969MBe (31116)2263
Cu ⁺⁺	dis	NaClO ₄	25°C	1.00M	U	K ₁ =3.25 B ₂ =4.90	1969SLb (31117)2264
Cu ⁺⁺	vlt	KNO ₃	20°C	1.00M	U	K ₁ =3.2	1969SVb (31118)2265
K ₁ =3.2 for D, L and DL forms							
Cu ⁺⁺	gl	KNO ₃	25°C	1.0M	U	K ₁ =2.6	1967RMb (31119)2266

B(Cu2L2)=8.2

Cu++ ix oth/un 20°C var U K1=3.1 B2=4.90 1964LUa (31120)2267
K3=0.8

Cu++ oth NaCl04 ? 1.0M U K1=3.2 1957LEa (31121)2268
B(Cu8L6(OH)10)=133.1

Cu++ sol oth/un ? ? U K2=5.15 1956PKa (31122)2269

Cu++ oth oth/un ? ? U K2=5.40 1955K0a (31123)2270
K3=9.20

Cu++ vlt oth/un 25°C var U 1949MEa (31124)2271
B(CuL2(OH)2)=9.85

Cu++ EMF NaCl04 20°C 1.0M U K1=3.20 B2=5.11 1948FRa (31125)2272
K3=-0.34
K4=1.73

LIGAND:(+)-acid. With racemic acid: K1=3.00, K2=2.11, K3=0.65, K4=0.44

C4H6O6 H2L meso-Tartaric CAS 147-73-9 (91)

meso-2,3-Dihydroxybutanedioic acid; HOOC.CH(OH).CH(OH).COOH

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

Cu++ ISE NaCl04 25°C 1.00M C H K1=3.15 B2=5.31 1980J0b (31422)2273
B(CuHL)=6.18
B(Cu2L2)=8.52
B(Cu5H-5L4)=4.04
B(Cu5H-6L4)=0.13

C4H7NO2 HL Acetoacetamide CAS 2044-64-6 (1407)

3-Oxobutanamide;

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

Cu++ gl NaCl04 25°C 0.5M C K1=7.22 1998HCb (31446)2274

C4H7NO2 HL CAS 57-71-6 (6204)

But-2,3-dione monoxime; CH3.CO.C(:NOH).CH3

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

Cu++ gl alc/w 25°C 75% U K1=8.2 B2=13.30 1986BTa (31451)2275
Medium: 75% MeOH/H2O, 0.1 M NaCl04

C4H7NO2S HL Thioproline CAS 444-27-9 (1183)

Thiazolidine-4-carboxylic acid; C3H6NS.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	30°C	0.10M	C	H		K1=5.64	1983RKa (31463)	2276
DH(K1)=-20.2 kJ mol ⁻¹ , DS(K1)=41.										
Cu++	gl	NaClO4	25°C	0.15M	U			K1=6.02 B2=11.22	1976FJa (31464)	2277
B(CuHL)=7.85										

C4H7NO3		HL						(680)		
2-Amino-2-acetylethanoic acid; H2N.CH(CO.CH3).COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	C				1988CLa (31483)	2278
K(Cu+HL)=2.40										
K(Cu+2HL)=4.54										

C4H7NO3		HL						CAS 543-24-8 (3586)		
N-Acetylglycine; CH3.CO.NH.CH2.COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	cal	NaClO4	25°C	0.10M	C	H			1988LGa (31490)	2279
DH(K1)=1.9 kJ mol ⁻¹ , DH(K2)=1.9 kJ mol ⁻¹ .										
Cu++	gl	NaNO3	30°C	0.40M	U			K1=1.30	1970BTa (31491)	2280
Cu++	gl	oth/un	20°C	1.0M	U	I		K1=1.71	1960KFb (31492)	2281
K1=2.14(I=0.015)										

C4H7NO4		H2L						CAS 56-84-8 (21)		
Aminobutanedioic acid; H2N.CH(CH2.COOH).COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	M			K1=8.46 B2=15.08	2003DFa (31625)	2282
B(CuHL)=12.48										
Cu++	gl	NaNO3	25°C	0.10M	C			K1=8.94 B2=15.83	2000MSa (31626)	2283
B(CuH-1L)=1.23										
Cu++	gl	KNO3	25°C	0.10M	C	M		K1=8.50	1999AAa (31627)	2284
K(CuL+A)=4.07										
B(CuLA)=12.57										
K(CuL+B)=3.86										
B(CuLB)=12.36										
K(CuL+C)=3.47, B(CuLC)=11.97, K(CuL+D)=3.44, B(CuLD)=11.94.										
HA=MOPSO, HB=MOPS, HC=DIPSO, HD=TAPSO.										

Cu++	gl	KNO3	25°C	0.10M	C			K1=8.83	1999BIa (31628)	2285
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Cu++ gl NaNO3 25°C 0.10M C T M K1=8.85 B2=16.73 1999KAa (31629)2286
K(CuA+L)=9.60

Data for 25-55C. H2A=dipicolinic acid. DH(K1)=-52.33 kJ mol⁻¹, DS(K1)=-5.06 J K⁻¹ mol⁻¹, DH(CuAL)=-71.80 kJ mol⁻¹, DS(CuAL)=-55.89 J K⁻¹ mol⁻¹.

Cu++ gl NaNO3 30°C 0.20M U M K1=8.80 1999PPa (31630)2287

B(CuAL)=12.60

B(CuBL)=13.70

B(CuCL)=13.76

A is imidazole, B is 2-Me-imidazole, C is 2-Et-imidazole.

Cu++ gl NaCl 25°C 0.15M C M K1=9.04 B2=15.86 1999SMa (31631)2288

B(CuHL)=12.86

B(CuHL2)=21.37

B(CuH2L2)=25.60

B(CuHLA)=25.94, B(CuH2LA)=31.18, B(CuH3LA)=35.00, B(CuH4LA)=38.37,
B(CuH3L2A)=43.55, B(CuH4L2A)=47.67. HA=Pyridoxamine.

Cu++ gl alc/w 25°C 20% M M K1=8.78 1998ABa (31632)2289

K(CuL+oxine)=9.89

Medium: 20% w/w EtOH/H2O, 0.10 M KNO3.

Cu++ gl NaNO3 25°C 0.10M U M K1=8.94 B2=15.83 1998MSe (31633)2290

B(CuH-1L)=1.23

B(CuAL)=13.00

B(CuH-1AL)=4.52

B(Cu2AL2)=24.83

B(Cu2(H-1A)L2)=18.92. A is imidazole.

Cu++ gl NaNO3 25°C 0.10M U K1=8.50 1997ISd (31634)2291

Cu++ gl NaCl 37°C 0.15M C M K1=8.745 B2=15.509 1997KAa (31635)2292

B(CuHL)=9.81

Ternary complexes with Aspartic acid: B(CuHLAsp)=18.71, B(CuLAsp)=15.277

Cu++ gl NaNO3 25°C 0.10M M M K1=8.84 B2=15.90 1997SKc (31636)2293

B(CuAL)=13.93

B(CuH-1AL)=6.18

B(CuHL)=12.13

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.10M M M K1=8.85 1996AEa (31637)2294

Data for ternary complexes with dipicolinic acid.

Cu++ gl KNO3 20°C 0.01M U K1=8.75 B2=15.32 1996EMa (31638)2295

Cu++ gl NaCl04 25°C 0.20M C K1=8.81 1993BAb (31639)2296

Cu++ gl NaCl04 37°C 0.15M U M 1993NAd (31640)2297

B(CuLNi)=13.09
B(CuL2Ni)=21.02
B(CuLZn)=12.79
B(CuL2Zn)=20.30

Cu++ gl NaClO4 25°C 0.20M U T M K1=8.57 B2=15.55 1993PPa (31641)2298
K(CuA+L)=8.63

A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Cu++ gl NaClO4 37°C 0.15M U M K1=9.46 B2=17.02 1992NAa (31642)2299
B(CuLA)=18.74
B(CuLB)=19.04
B(CuL(Orn))=17.57

HA=2,3-Diaminopropanoic acid, HB=2,4-diaminobutanoic acid

Cu++ gl KNO3 35°C 0.20M C M K1=8.38 1992YKa (31643)2300
B(Cu(edda)L)=18.94
B(Cu(en)L)=17.71
K(Cu(edda)+L)=4.44
K(Cu(en)+L)=9.33

Cu++ gl NaClO4 30°C 0.01M U T H K1=8.90 1991PPa (31644)2301
K(Cu(imidazole)+L)=4.02
K(Cu(Me-imidazole)+L)=4.30
K(Cu(Et-imidazole)+L)=4.34

40 C: K1=8.62, 50 C: K1=8.35. DH(K1)=-49.7 kJ mol⁻¹, DS=5.8 J K⁻¹ mol⁻¹

Cu++ gl KNO3 30°C 0.10M U 1990APa (31645)2302
K(Cu+H2L=CuL+2H)=-4.76
*K(CuL)=-6.74
K(Cu+2H2L=CuL2+4H)=-11.55
K(Cu+HL=CuL+H)=-1.14

Cu++ gl NaClO4 37°C 0.15M U M K1=9.46 B2=17.02 1990NCa (31646)2303
B3=14.82
B(CuLA)=15.28
B(CuLB)=14.18
B(CuLC)=16.40

HA=2-aminobutanoic acid, HB=4-amino-3-hydroxybutanoic acid,
HC=2-amino-3-hydroxybutanoic acid

Cu++ gl NaClO4 25°C 1.00M C K1=8.40 B2=15.90 1989BFb (31647)2304
B(CuHL)=12.40
B(CuH2L)=14.25
B(CuHL2)=20.15
B(CuH2L2)=24.08

B(CuH4L2)=28.26

Cu++ vlt KNO3 25°C 1.0M C K1=8.71 B2=15.64 1989FNa (31648)2305
B(CuHL)=12.38

B(CuHL2)=20.39
B(CuH2L2)=23.48

Method: chronocoulometry.

Cu++ gl NaClO4 25°C 0.50M C K1=8.76 B2=15.72 1987LEc (31649)2306
B(CuHL)=12.40

Cu++ gl KNO3 35°C 0.20M C M K1=8.38 B2=15.02 1987PRa (31650)2307

Cu++ ISE KNO3 25°C 0.10M U M K1=8.40 1986DVa (31651)2308
K(CuL+salicylate)=9.63

Cu++ gl NaClO4 30°C 0.10M M I K1=8.40 B2=15.15 1985ARc (31652)2309
Also data for 20-60% dioxane/H2O. For 40% dioxane/H2O, K1=10.75, K2=9.32.

Cu++ gl KNO3 25°C 0.10M C M K1=8.83 B2=15.93 1984DAb (31653)2310
B(CuHL)=12.52
B(CuHL2)=19.8
B(CuH2L2)=24.0
B(Cu2L)=10.34

B(CuLA)=17.67; B(CuHLA)=23.1. H2A=Noradrenaline

Cu++ gl NaNO3 25°C 0.25M C K1=8.70 B2=15.70 1984LOa (31654)2311
B(CuHL)=12.36
B(CuH2L2)=23.54
B(CuL2H)=19.87

Cu++ ISE none 25°C dil C 1984LOf (31655)2312
*Ks(CuL(s)+H=Cu+HL)=-2.362

Method: Cu ion selective electrode. Self medium.

Cu++ gl NaClO4 21°C 0.10M U K1=9.14 B2=16.16 1983LWb (31656)2313
B(CuHL)=12.43
B(CuH-1L)=3.54

Cu++ nmr NaNO3 25°C 4.00M U M 1982ZBa (31657)2314
K(CuL2+2SCN)=-0.56
K(CuL2+2I)=-0.58
K(CuL2+2Br)=-0.58
K(CuL2+2Cl)=-0.57

Cu++ gl KNO3 25°C 0.10M M K1=8.61 B2=13.72 1981GVa (31658)2315

Cu++ gl KNO3 25°C 0.20M U M K1=8.84 B2=15.82 1981M0d (31659)2316
K(CuA+L)=8.10

A is bis(2-imidazolyl)methane

Cu++ gl NaNO3 30°C 0.20M C K1=8.82 B2=15.71 1981RSd (31660)2317

Cu++ gl NaClO4 30°C 0.10M C M K1=8.40 B2=15.15 1980ASb (31661)2318

ternary complex with glycyl-sarcosine

Cu++ gl KNO3 25°C 0.10M C K1=8.84 B2=15.24 1980CKb (31662)2319
B(CuHL)=12.70

Cu++ gl KNO3 30°C 1.00M U M K1=8.60 B2=15.50 1980SGd (31663)2320
B(CuL(malonate))=12.40
B(CuL(oxalate))=13.00

Cu++ vlt KNO3 30°C 1.00M U K1=8.6 B2=15.5 1980SSe (31664)2321

Cu++ sp NaNO3 25°C 1.00M U 1979BSa (31665)2322
K(Cu+HL)=4.02

Cu++ gl KNO3 25°C 0.20M C M K1=8.84 B2=15.82 1979MBe (31666)2323
Also many ternary complexes

Cu++ gl KNO3 25°C 0.10M U K1=9.00 B2=15.84 1978SYa (31667)2324
B(CuHL)=12.72

Cu++ gl KNO3 25°C 0.10M U K1=9.079 B2=16.25 1977BPa (31668)2325
B(CuHL)=12.82
B(CuH2L2)=25.15
B(CuHL2)=21.21

Cu++ gl KNO3 25°C 0.10M U M 1977BPa (31669)2326
B(CuLA)=18.27
B(CuL(His))=18.18
B(CuHLA)=22.79
B(CuHL(His))=22.85

HA=D-His

Cu++ gl NaCl 25°C 0.12M U K1=8.62 B2=14.86 1977BSb (31670)2327

Cu++ gl KCl 25°C 0.20M C M 1977NGa (31671)2328
B(CuH-1LA)=5.73
B(CuH-1LB)=5.55
B(CuH-1LC)=5.16
K(CuH-1L2+A=CuH-1LA+L)=1.27

K(CuH-1L2+B=CuH-1LB+L)=0.93, K(CuH-1L2+C=CuH-1LC+L)=1.02

HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++ gl KCl 25°C 0.20M C 1976NGd (31672)2329
K(CuH-1A2+L=CuH-1AL+A)=5.73
K(CuH-1C2+L=CuH-1CL+C)=5.55
K(CuH-1D2+L=CuH-1DL+D)=5.16

HA is glycylglycine; HC is glycyl-DL-alpha-alanine;
HD is DL-alanyl-DL-alanine.

Cu++ gl KNO3 25°C 0.10M U K1=8.94 B2=15.89 1975RIb (31673)2330

K(CuL+H)=3.65

B(CuHL)=12.59

Cu++ gl KCl 25°C 0.20M U HM K1=8.8 B2=15.76 1974NGa (31674)2331

K(CuL+H)=3.68

B(CuL(Gly))=15.78

DH(K1)=-25.5 kJ mol⁻¹, DH(K2)=-25.0, DH(CuL+H)=-10.5, DS(K1)=20 J K⁻¹ mol⁻¹,
DS(K2)=12, DS(CuL+H)=9.

Cu++ gl KCl 25°C 0.20M C HM K1=8.70 B2=15.66 1973NGa (31675)2332

K(CuL+H)=3.68

B(Cu(gly)L)=15.78

B(CuAL)=15.63

By calorimetry: DH(K1)=-26 kJ mol⁻¹, DS(K1)=84 J K⁻¹ mol⁻¹; DH(K2)=-26,
DS=46; DH(CuL+H)=-15, DS=38. DH(Cu(gly)L)=-55.7. H2A=glutamic acid

Cu++ gl NaClO4 25°C 0.10M U M 1973SSe (31676)2333

K(CuL+Gly)=6.45

K(CuL+Ala)=6.41

K(CuL+Val)=6.37

K(CuL+Leu)=6.52

Cu++ gl KNO3 25°C 0.10M U K1=8.4 1957Mca (31677)2334

Cu++ gl KCl 30°C 0.10M U K1=8.57 B2=15.35 1952Cmb (31678)2335

Cu++ vlt KNO3 25°C 1.0M U B2=15.20 1950Lda (31679)2336

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

Cu++ gl KNO3 35°C 0.10M C M K1=10.56 1999DSb (32058)2337

B(CuAL)=13.68

A is thiamine hydrochloride.

Cu++ gl NaNO3 25°C 0.10M M K1=11.21 1996KSc (32059)2338

Cu++ ISE alc/w 25°C 78% C K1=13.30 B2=19.85 1995LBb (32060)2339

B(CuHL)=3.83

K(CuL+OH)=6.57

Medium: 78% EtOH/H2O, 0.01 M LiNO3. (Kw=-14.76)

Cu++ gl NaClO4 25°C 0.50M U K1=10.11 B2=15.77 1992GLa (32061)2340

B(CuH-1L)=1.47

Cu++ gl NaClO4 37°C 0.15M U M K1=10.48 B2=16.32 1992NAa (32062)2341

B(CuLA)=21.04

HA=2,4-Diaminobutanoic acid

Cu++ gl NaClO4 37°C 0.15M U M K1=10.48 B2=16.32 1992RAC (32063)2342
B(CuLZn)=13.13, B(CuL2Zn)=20.13

Cu++ gl KNO3 35°C 0.20M U M 1992RKb (32064)2343

K(CuL+Gly)=6.14

K(CuL+Ala)=5.95

K(CuL+Val)=6.30

K(CuL+Leu)=6.09

K(CuL+Phe)=7.64, K(CuL+Trp)=7.96, K(CuL+Ser)=7.80, K(CuL+Thr)=7.90,

K(CuL+Met)=7.70, K(CuL+Asp)=8.38

Cu++ gl KNO3 25°C 0.10M C M K1=10.57 1991DAc (32065)2344

Data for ternary complexes with acetohydroxamic acid

Cu++ gl NaClO4 25°C 0.20M U K1=9.52 B2=15.10 1991UBa (32066)2345

Cu++ gl KNO3 25°C 0.10M C M K1=10.57 1990DAb (32067)2346

K(CuL+A)=5.85

B(CuLA)=16.42

H2A: salicylaldoxime

Cu++ gl KNO3 25°C 0.10M C M K1=10.57 1990DAc (32068)2347

K(CuL+A)=5.89

B(CuAL)=16.46

HL: benzohydroxamic acid

Cu++ gl NaClO4 25°C 0.20M C M 1990UBc (32069)2348

B(Cu(Gly)L)=15.71

B(Cu(Ala)L)=15.76

B(Cu(Phe)L)=15.73

B(Cu(HTyr)L)=15.52

B(Cu(Trp)L)=16.14, B(Cu(en)L)=18.31, B(Cu(1,3-pn)L)=16.97

Cu++ gl NaClO4 25°C 0.10M U M K1=9.76 1987NDa (32070)2349

K(CuL+A)=9.09

K(CuL+A+B)=14.53

K(CuL+A+C)=13.83

H2A=oxydiacetic acid, H2B=maleic acid, H2C=malonic acid + other ligands

Cu++ sp NaClO4 20°C 0.10M U M K1=10.36 B2=15.69 1985KVa (32071)2350

K(Cu+L+HAsp)=16.62

Cu++ EMF KCl 25°C 0.10M U K1=9.68 1985SNa (32072)2351

K1=9.46 by spectrophotometry

Cu++ gl alc/w 25°C 50% U T HM 1985SRc (32073)2352

K(CuA+L)=6.31

A=2-(N,N-diethylaminomethyl)benzimidazole. At 35 C: K=5.45; 45 C: K=4.64.

DH=-151.0 kJ mol⁻¹, DS=-388 J K⁻¹ mol⁻¹

Cu++ gl NaClO4 25°C 0.10M U TIH K1=8.63 B2=14.43 1984DBa (32074)2353
Data for 35 and 45 C and I=0.2 and 0.3 M. At I=0, K1=8.58, K2=5.73.
DH(B2)=-15.6 kJ mol⁻¹, DS(B2)=211 J K⁻¹ mol⁻¹.

Cu++ ISE KNO3 20°C 0.10M U K1=10.63 B2=16.68 1984HKa (32075)2354

Cu++ gl KNO3 25°C 0.10M U K1=10.57 1983FSa (32076)2355

Cu++ ISE KNO3 25°C 0.10M U K1=9.32 B2=16.33 1983SVa (32077)2356

Cu++ gl NaClO4 25°C 0.10M U M 1982ABe (32078)2357

K(Cu(tpy)+L)=5.11
B(Cu(tpy)L)=17.4
K(Cu(tpy)+HL)=2.4
B(CuH(tpy)L)=24.0

K(Cu(tpy)+CuL=Cu(tpy)L+Cu)=-5.3. tpy: 2,2',2''-terpyridine.

Cu++ cal KNO3 15°C 0.50M U TIH 1982VRa (32079)2358
DH(K1)=-23.0 kJ mol⁻¹, DH(B2)=-50.4

Cu++ gl KNO3 25°C 0.10M U I K1=10.65 B2=16.30 1981FMb (32080)2359
Interpolated from graph. Data also for 20, 50, 80% v/v MeOH/H2O

Cu++ vlt KNO3 RT 0.25M C M B2=16.1 1981RRe (32081)2360
Method: polarography. B(Cu(gly)L)=16.13, B(Cu(ala)L)=16.00,
B(Cu(B-ala)L)=15.79.

Cu++ gl NaNO3 30°C 0.20M C K1=10.51 B2=16.11 1981RSe (32082)2361

Cu++ ISE KNO3 25°C 0.10M U K1=10.48 1980Nwa (32083)2362

Cu++ gl NaClO4 25°C 0.10M U HM K1=10.42 B2=16.02 1979BCa (32084)2363
B(CuL(bpy))=16.63
K(CuL+H)=1.93
*K(CuL)=-9.37
K(2CuLOH=Cu2L2(OH)2)=3.5

DH(K1)=-16.6 kJ mol⁻¹, DS=14.4 J K⁻¹ mol⁻¹; DH(B2)=-43.1, DS=16.2,
DH(B(CuHL))=-19, DS=172. DH(Cu+L+bpy)=-61.5, DS=112 kJ mol⁻¹

Cu++ gl KNO3 25°C 2.5M M K1=10.55 1979FLc (32085)2364

Cu++ ISE diox/w 25°C 10% U K1=10.93 B2=16.67 1978WIa (32086)2365

Cu++ sp NaClO4 25°C 0.50M U K1=10.15 1976KIa (32087)2366

Cu++ ISE KNO3 25°C 0.10M U K1=10.54 1975Nwa (32088)2367

Cu++ gl KNO3 25°C 0.10M U M 1973YBa (32089)2368

K(CuL+py)=2.65

Cu++ gl KCl 30°C 0.10M U K1=10.55 B2=16.20 1952CMa (32100)2379

C4H7NO5 H2L (1237)
N-Hydroxyaminobutanedioic acid; HO.NH.CH(CH2.COOH)COOH

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

Cu++ gl KNO3 25°C 0.10M U K1=6.54 B2=10.84 1987BKa (32410)2380

C4H7NO5 H2L (1234)
N-Hydroxyiminodiethanoic acid; HO.N(CH2.COOH)2

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

Cu++ gl KNO3 25°C 0.10M C H K1=8.45 B2=12.55 1987AKa (32414)2381
DH(B2)=-21.5 kJ mol⁻¹, DS=168 J K⁻¹ mol⁻¹

Cu++ gl KNO3 25°C 0.10M U K1=8.45 B2=12.55 1987BKa (32415)2382
K1 determined by ligand exchange with tris(2-aminoethyl)amine, according to
G.Schwarzenbach, E.Freitag, Helv.Chim.Acta, 34, 1147 (1951)

Cu++ gl KNO3 25°C 0.10M C K1=8.33 B2=12.13 1984FVa (32416)2383

C4H7N3 L CAS 13400-46-9 (3567)
4(5)-Aminomethylimidazole; C3H3N2.CH2.NH2

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

Cu++ gl NaClO4 25°C 0.10M U M K1=9.22 B2=17.17 1971HGc (32432)2384
B(CuLA)=22.83

H2A=catechol

Cu++ gl NaClO4 25°C 0.30M C H K1=8.73 B2=16.45 1967HWa (32433)2385
By calorimetry DH(K1)=-47.7 kJ mol⁻¹, DH(K2)=-47.8

Cu++ gl oth/un 25°C 0.01M U K1=9.05 B2=16.8 1960HJa (32434)2386

C4H7N3S L CAS 14068-53-2 (1456)
2-Amino-5-ethyl-1,3,4-thiadiazole; C2N2S(C2H5).NH2

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

Cu++ gl KNO3 25°C 0.50M U K1=1.86 B2=2.97 1985GLa (32441)2387

C4H7N3S L CAS 13275-68-8 (1427)
2-Ethylamino-1,3,4-thiadiazole; C2HN2S.NHC2H5

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

Cu++ gl KNO3 25°C 0.50M U K1=1.53 1982GLa (32447)2388

 C4H7O2Br HL CAS 80-58-0 (3006)
 2-Bromobutyric acid; CH3.CH2.CH(Br)COOH

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

Cu++ sol oth/un 25°C ->0 U K1=1.46 1951LWa (32455)2389

 C4H8N2O2 H2L Dimethylglyoxim CAS 95-45-4 (2032)
 2,3-Butanedione dioxime, Dimethylglyoxime; CH3.(C:NOH).(C:NOH).CH3

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

Cu++ gl NaClO4 25°C 0.30M U I 1982PNa (32491)2390
 K(Cu+HL)=11.41
 K(CuHL+HL)=10.92

In 50% dioxan/H2O: K(Cu+HL)=11.41

 Cu++ gl none 25°C 0.0 C 1977MTb (32492)2391
 K(Cu+2HL)=18.65
 K(2Cu(HL)2+2Cu+4H2O=[Cu(HL)(OH)]4+4H)= ca.13.4

 Cu++ gl KNO3 25°C 0.10M U I 1976LUa (32493)2392
 K(Cu+HL)=8.75
 K(CuHL+HL)=10.55
 K(Cu+H2L=CuHL+H)=-1.65
 K(Cu+2H2L=Cu(HL)2+2H)=-1.55

Data for 25, 50 and 75% v/v dioxan/H2O. At 50%, K(Cu+HL)=10.50,
 K(CuHL+HL)=11.85, K(Cu+H2L=CuHL+H)=-2.0, K(Cu+2H2L=Cu(HL)2+2H)=-2.65

 Cu++ nmr non-aq ? 100% U I M 1972DFa (32494)2393
 K(CuL2+py)=3.25
 Method: ESR. Medium: benzene. In CH3Cl, K=3.47

 Cu++ vlt alc/w ? 20% U B2=20.11 1972PSc (32495)2394
 Medium: 0.05, 20% EtOH. Ammonia buffer

 Cu++ sp oth/un ? 0.10M U K1=7.9 B2=20.7 1972UCa (32496)2395
 Acetate buffer

 Cu++ gl diox/w 25°C 75% U I K1=12.23 B2=24.34 1963BAb (32497)2396
 In aqueous soln: K1=9.05, B2=18.50

 Cu++ dis non-aq 25°C 100% U M B2=19.24 1961DHa (32498)2397
 K(CuL2+A)=2.04
 K(CuL2+B)=3.36
 Medium: CHCl3, 0.1 NaClO4. A=quinoline, B=dodecylamine

 Cu++ gl diox/w 25°C 50% U K1=11.90 B2=23.10 1958BPa (32499)2398

Cu++ gl diox/w 25°C 50% U H K1=11.94 B2=23.30 1954CFa (32500)2399
DH(B2)=-58.2 kJ mol⁻¹

Cu++ gl diox/w 25°C 50% U T H K1=12.00 B2=23.44 1954CFa (32501)2400
DH(B2)=-50.2. 39.6 C: K1=11.80, K2=11.22

Cu++ gl diox/w 30°C 75% U K1=15.1 B2=29.2 1954UFa (32502)2401

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

Cu++ gl KNO3 25°C 0.10M C T H K1=8.05 2001BTa (32606)2402
Data for 15-45 C. DH(K1)=-22.54 kJ mol⁻¹, DS(K1)=-78.49 J K⁻¹ mol⁻¹.

Cu++ gl KNO3 25°C 0.10M C K1=8.05 1999BIa (32607)2403

Cu++ gl KNO3 25°C 0.10M C H K1=7.86 B2=14.40 1998ACb (32608)2404
By calorimetry|: DH(K1)=-22.3 kJ mol⁻¹, DS=73J K⁻¹ mol⁻¹; DH(B2)=-47.4
DS=112

Cu++ gl KNO3 25°C 0.10M C K1=7.849 B2=14.45 1998ZYa (32609)2405

Cu++ gl KNO3 25°C 0.10M M M K1=8.05 1996AEa (32610)2406
Data for ternary complexes with dipicolinic acid.

Cu++ gl NaClO4 37°C 0.15M U M 1994NAc (32611)2407
B(Cu(glu)L)=15.82
K(Cu(glu)+L)=7.30
K(CuL+glu)=7.22

Cu++ gl NaCl 37°C 0.15M C M K1=7.788 B2=14.14 1993BAa (32612)2408
B(CuHL)=10.08
B(CuHL2)=17.44
B(CuH-1L2)=4.17
B(CuL(His))=16.810
B(CuHL(His))=20.649

Cu++ gl NaClO4 25°C 0.20M C K1=7.94 1993BAb (32613)2409

Cu++ gl NaClO4 37°C 0.15M U M K1=8.60 B2=14.95 1990NCa (32614)2410
B(CuLA)=15.24
B(CuLB)=14.95
B(CuLC)=18.33

HA=2-aminobutanoic acid, HB=3-aminobutanoic acid, HC=4-amino-3-hydroxybutanoic acid

Cu++ gl NaClO4 21°C 0.10M M M K1=7.73 B2=14.39 1989WLa (32615)2411

B(CuH-1L)=2.32
B(Cu(gly)L)=15.25
B(CuH-1(gly)L)=7.79

Cu++ gl NaClO4 37°C 0.15M U M K1=7.89 B2=14.31 1988NSa (32616)2412
B(CuLA)=12.45, B(CuLA2)=15.61, A=imidazole. B(CuHLB)=21.36, B(CuLB)=16.89,
B=histamine. B(CuHL(His))=22.03, B(CuL(His))=17.12

Cu++ gl KNO3 35°C 0.20M C M K1=7.37 B2=13.72 1987PRa (32617)2413

Cu++ gl NaCl 37°C 0.15M C M T K1=7.714 B2=14.210 1986BHa (32618)2414
B(CuH2L2)=20.186
B(CuHL2)=17.417
B(CuH-1L)=0.675
B(CuH-1L2)=3.941
B(CuHL(His))=20.06, B(CuL(His))=16.756, B(CuH-1L(His))=5.70.

Cu++ gl NaClO4 21°C 0.10M U K1=7.69 B2=14.38 1983LWb (32619)2415
B(CuH-1L)=2.33

Cu++ gl NaClO4 30°C 0.10M C M K1=7.80 B2=14.36 1980ASb (32620)2416
ternary complex with glycyl-sarcosine

Cu++ ISE diox/w 25°C 20% U K1=8.20 B2=14.95 1980YTa (32621)2417

Cu++ gl KNO3 25°C 0.10M U T H K1=7.84 B2=14.46 1980ZYb (32622)2418

Cu++ gl KCl 25°C 0.20M C M 1977NGa (32623)2419
B(CuH-1LA)=4.92
B(CuH-1LB)=4.93
B(CuH-1LC)=4.45
K(CuH-1L2+A=CuH-1LA+L)=0.46

K(CuH-1L2+B=CuH-1LB+L)=0.31, K(CuH-1L2+C=CuH-1LC+L)=0.32
HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++ gl KCl 25°C 0.20M C 1976NGd (32624)2420
K(CuH-1A2+L=CuH-1AL+A)=4.92
K(CuH-1C2+L=CuH-1CL+C)=4.93
K(CuH-1D2+L=CuH-1DL+D)=4.45

HA is glycylglycine; HC is glycyl-DL-alpha-alanine;
HD is DL-alanyl-DL-alanine.

Cu++ gl KCl 25°C 0.20M U HM T K1=7.79 B2=14.29 1975GNa (32625)2421
K(CuH-1L2+H)=10.45
K(CuH-2L2+H)=12.0

B(CuL(Gly)) = 14.91

Cu++ gl NaClO4 25°C 3.00M C H T K1=8.677 B2=16.052 1974BWa (32626)2422

Cu++ cal KNO3 25°C 0.10M C H 1971BPi (32627)2423

DH(B1)=-47.2 kJ mol⁻¹, for rac-His: DH=-47.5

Cu++ gl KNO3 25°C 0.10M U T K1=7.86 B2=14.42 1965RWa (32628)2424

Cu++ gl oth/un 25°C 0.15M U K1=7.78 B2=14.13 1958LDa (32629)2425

Cu++ gl oth/un 20°C 0.01M U B2=14.9 1950ALa (32630)2426

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

Cu++ gl NaNO3 25°C 0.10M C M K1=5.63 2004SSa (32849)2427

B(CuH-1L)=1.35
B(CuH-2L)=-8.05
B(CuH-1L2)=4.32
B(CuLA)=12.63

B(CuHLA)=17.11, B(CuH-1LA)=5.21. HA is 6-aminopenicillanic acid.

Cu++ gl NaCl 25°C 0.15M M K1=5.51 2003MYa (32850)2428

B(CuHL)=9.25
B(CuH-1L)=1.34
B(CuHL2)=19.23
B(CuH-2L)=-7.88

B(Cu2H-1L2)=11.71.

Cu++ gl NaNO3 25°C 0.10M M M K1=5.4 2002SKa (32851)2429

B(CuAL)=15.06
B(CuH-1L)=1.14
B(CuAH-1L)=6.87

A is picolylamine

Cu++ gl KCl 25°C 0.10M C M K1=5.40 1997BLb (32852)2430

B(CuH-1L)=1.47
B(CuH-2L)=-7.52
B(CuH-3L)=-18.66
B(CuH-1L2)=4.77

Tenary complexes with 1,13-dioxo-4,7,10,16,19,23-haxaazacyclotetracosane (A)
K(Cu2A+L)=6.18, K(Cu2A+HL)=4.86, K(Cu2AL=Cu2H-1AL+H)=-7.17 etc.

Cu++ gl KCl 25°C 0.20M C M 1997SKa (32853)2431

B(CuH-1L(1-Me-Uracil))=4.90
B(CuH-1L(Uridine))=4.76
B(CuH-1L1-Me-Thymine))=5.11
B(CuH-1L(Thymidine))=5.12

B(CuH-1L(1-Me-Cytosine))=3.61, B(CuH-1L(9-Me-Adenine))=3.20

B(CuH-1L(9-Et-Guanine))=4.14, B(CuH-1L(Ac-Histamine))=4.79

Cu++ gl diox/w 25°C 50% C K1=6.23 1996CBa (32854)2432

$$*K(\text{CuL})=-3.92$$

Medium: 50% v/v dioxane/H₂O, 0.20 M NaClO₄.

Cu⁺⁺ gl diox/w 30°C 50% U M K1=6.23 1991CBa (32855)2433
 B(CuLA)=9.82
 B(CuLB)=10.13
 B(CuLC)=9.85

HA=3-indolylethanoic, HB=3-indolylpropanoic, HC=3-indolylbutanoic acid

Cu⁺⁺ gl NaClO₄ 30°C 0.20M U M K1=5.78 1990CBa (32856)2434
 K(CuL=CuH-1L+H)=-4.47
 B(CuLA)=18.15
 K(CuLA=CuH-1LA+H)=-8.12
 K(Cu+L+HB)=17.68

H2A=catechol. K(CuL(HB)=CuH-1L(HB)+H)=-8.56; H3B=pyrogallol. B(CuLC)=18.34,
 K(CuLC=CuH-1LC+H)=-8.75; H4C=tiron. B(CuLD)=16.5; H2D=2,3-dihydroxynaphthale

Cu⁺⁺ gl NaClO₄ 30°C 0.20M U K1=6.05 1990CBb (32857)2435
 K(CuH-1L+H)=3.92

Cu⁺⁺ gl NaClO₄ 25°C 0.20M U M K1=5.78 1990Mca (32858)2436
 K(CuH-1L+H)=4.47
 B(CuL(His))=15.61
 B(CuHL(His))=20.40
 B(CuH-1L(His)+H)=8.82

Cu⁺⁺ gl NaNO₃ 30°C 1.00M U T H 1990PPb (32859)2437
 B(CuL(imidazole))=2.33
 40 C: K=2.02; 50 C:K=1.77, DH=-53.9 kJ mol⁻¹

Cu⁺⁺ gl NaCl 25°C 5.00M C M K1=6.08 1990TRa (32860)2438
 B(CuHL)=10.17
 B(CuL(Gly))=13.29
 B(CuH-1L(Gly))=4.75

Cu⁺⁺ gl KCl 25°C 1.00M C 1989FKa (32861)2439
 K(CuH-1L2=CuH-1LOH+L+H)=-12.46
 K(CuH-1L2=CuH-2L2+H)=-11.60

Cu⁺⁺ sp KNO₃ 25°C 1.00M U K1=5.63 1989SGa (32862)2440
 B(CuHL)=9.36
 B(CuH-1L)=1.24
 B(CuH-1L(OH))=-8.28
 B(CuH-1L2)=4.34

Also B(CuH-2L2)=-7.70; B(Cu2H-2L2(OH))=-4.65.

Cu⁺⁺ gl KCl 25°C 0.10M U M K1=5.44 1988YMa (32863)2441
 K(CuH-1L+H)=4.19
 B(CuL(ATP))=8.80

Cu++ gl NaClO4 25°C 1.0M U M 1987SIb (32864)2442
K(Cu+HL=CuH-1L+2H)=-5.60
K(CuH-1L+HA=CuH-1LA+H)=-2.93

A is imidazole.

Cu++ gl NaClO4 25°C 1.00M C 1986SMb (32865)2443
K(2CuL=Cu2H-1L2+H)=-5.06
K(CuH-1L+H)=9.31

Cu++ cal KNO3 25°C 0.50M C H K1=5.46 1985AJb (32866)2444
B(CuH-1L)=14.84
B(CuH-1L2)=17.83
K(Cu+L=CuH-1(OH)L+2H)=19.51
DH(K1)=-2.6 kJ mol⁻¹, DH(CuH-1L)=1.6, DH(CuH-1L2)=-27.9,
DH(CuH-1(OH)L)=43.4.

Cu++ gl NaNO3 35°C 0.10M U M K1=5.70 1985KSc (32867)2445
K(CuL+CMP)=2.15
H2CMP=cytidine-5'-monophosphoric acid

Cu++ gl KCl 25°C 0.20M C M 1984KDb (32868)2446
B(CuHL(DOPA))=29.40
Ternary data also with Dopamine, Adrenaline and Noradrenaline

Cu++ gl NaNO3 37°C 0.15M M M K1=5.633 B2=11.716 1984MEa (32869)2447
B(CuH-1L)=1.274
B(CuH-2L)=-8.763
B(Cu2H-1L2)=11.856
Ternary complexes with pyridoxamine or/and imidazole.

Cu++ nmr NaNO3 20°C 0.10M U M K1=5.91 1984WRa (32870)2448
B(CuH-1L)=1.57
B(CuH-1L2)=4.50
B(CuL(ATP))=10.58
B(CuH-1L(ATP))=3.59

Cu++ nmr none 20°C 0.0 U M K1=5.91 1984WRb (32871)2449
B(CuH-1L)=1.57
B(CuH-1L2)=4.40
B(CuL(ATP))=10.57
B(CuH-1L(ATP))=3.67

Cu++ nmr KCl 20°C 0.20M U K1=5.62 1983KRb (32872)2450
B(CuH-1L)=1.45
B(CuH-2L)=-8.09
B(CuH-1L2)=4.56
B(Cu2H-3L2)=-4.63

Cu++ gl NaClO4 37°C 0.15M U M 1982NAa (32873)2451
B(CuHLA)=20.92

B(CuLA)=16.05
B(CuH-1LA)=8.79
B(CuLB)=12.94, B(CuH-1LB)=5.91. A=2,3-diaminopropanoic acid, B=3-aminobutanoic

Cu++ gl NaClO4 37°C 0.15M U M 1982NAa (32874)2452

B(CuHLA)=22.58
B(CuLA)=16.11
B(CuH-1LA)=8.49

A=2,4-diaminobutanoic acid. B=2-aminobutanoic B(CuLB)=13.40, B(CuH-1LB)=6.54

Cu++ gl NaClO4 37°C 0.15M U M 1982NAa (32875)2453

B(CuHLA)=23.25
B(CuLA)=16.55
B(CuH-1LA)=8.28

A=ornithine. B=glycinamide. B(CuLB)=11.25, B(CuH-1LB)=4.19

Cu++ gl KCl 25°C 1.00M C K1=5.49 1982NDa (32876)2454

B(CuH-1L)=1.13
B(CuH-2L)=-8.38
B(CuH-1L2)=4.05
B(Cu2H-3L2)=-5.26

Cu++ gl KCl 20°C 0.20M U 1981KRa (32877)2455

K(Cu+HL=CuL+H)=-2.46
K(Cu+HL=CuH-1L+2H)=-6.79
K(Cu+HL=CuH-2L+3H)=-16.27
K(Cu+2HL=CuL2+2H)=-5.56

K(Cu+2HL=CuH-1L2+3H)=-11.64, K(Cu+2HL=CuH-2L2+4H)=-21.76

Cu++ gl NaClO4 25°C 1.00M U M K1=5.54 1981NMa (32878)2456

B(CuH-1L)=1.31
B(CuH-2L)=-7.99
B(CuH-1L2)=4.50

Cu++ gl NaClO4 25°C 0.10M M M K1=5.55 1981SPd (32879)2457

K(Cu+H2L=CuL+2H)=-5.71
K(Cu+H2L=CuH-1L+3H)=-9.70
K(CuH-1L+H)=3.99

K(Cu(bpy)+L)=5.09; K(CuH-1(bpy)L)+H)=7.77

Cu++ gl NaClO4 37°C 0.15M U K1=5.70 1980NSc (32880)2458

B(CuH-1L2)=5.50

Cu++ gl NaNO3 30°C 0.10M U 1979EHa (32881)2459

B(CuH-2L)=-3.75

Cu++ cal KCl 25°C 0.20M C H K1=5.56 1977GNa (32882)2460

B(CuH-1L)=1.33
B(CuH-2L)=-8.04
B(CuH-1L2)=4.46

B(Cu₂H-3L₂)=-4.51

DH and DS values for all species

Cu++ gl KCl 25°C 0.20M U M 1977NGa (32883)2461
B(CuH-1L(Gly))=5.29
K(CuH-1L₂+Gly=CuH-1LG+L)=0.83
B(CuH-1L(Ala))=5.17
K(CuH-1L₂+Ala=CuH-1LA+L)=0.71

Also with Ser,Thr,Orn,Lys,Asp,Asn,Glu,Gln,Beta-Ala,norVal etc.

Cu++ gl KCl 25°C 0.20M C H K1=5.56 1976GNb (32884)2462
B(CuH-1L)=1.33
B(CuH-2L)=-8.04
B(CuH-1L₂)=4.46
B(Cu₂H-3L₂)=-4.51

Calorimetry: DH(K1)=-2.92kJ mol⁻¹, DS=8 J K⁻¹ mol⁻¹; DH(CuH-1L)=2.8, DS=35
DH(CuH-2L)=46.2, DS=1; DH(CuH-1L₂)=-28.3, DS=-10; DH(Cu₂H-3L₂)=38, DS=41

Cu++ gl KNO₃ 25°C 0.10M C K1=5.68 1975KMe (32885)2463
K(Cu+HL)=0.07
K(CuL+H)=2.47
*K(CuL)=-4.21
*K(CuH-1L)=-9.24

K(CuH-1L+L)=2.84, K(CuH-1L(OH)+CuH-1L)=2.15

Cu++ gl NaClO₄ 25°C 0.10M U K1=5.55 1975SIa (32886)2464
K(Cu(bpy)+L)=5.09

Cu++ gl KNO₃ 25°C 0.10M C K1=5.68 1974KMc (32887)2465
K(Cu+HL)=0.07
K(CuH-1L+H)=4.21
K(CuH-1L(OH)+H)=9.24
K(CuH-1L+L=CuH-1L₂)=2.84

Cu++ gl KNO₃ 25°C 0.05M U M K1=5.26 1973NAa (32888)2466
K(CuH-1L+H)=4.31
K(CuH-1L+L)=2.92
K(CuH-1L+A)=2.4

A=glycylglycine methyl ester

Cu++ gl oth/un 25°C 0.14M U T K1=6.02 B2=11.06 1972PEb (32889)2467
Temperature range 10-40C
K1(10 C)=6.08, K1(40 C)=6.00, B2(10 C)=11.2, B2(40 C)=10.99

Cu++ gl diox/w 25°C 45% U T K1=7.34 B2=13.78 1972PEb (32890)2468
Temperature range 10-40C
K1(10 C)=7.66, K1(40 C)=7.04, B2(10 C)=14.45, B2(40 C)=13.17

Cu++ gl alc/w 25°C 70% U I K1=8.24 B2=15.51 1972PEb (32891)2469
K1(39.1%)=6.78, B2(39.1%)=12.82

Cu ⁺⁺	gl	diox/w	25°C	60%	U		K1=8.46	B2=15.13	1972PEb (32892)2470
Cu ⁺⁺	gl	NaClO4	25°C	0.10M	U	M	K1=5.71		1972SGd (32893)2471
							K(CuH-1L+H)=4.15		
							K(Cu(bpy)+L)=4.98		
							K(CuH-1L+bpy)=7.71		
Cu ⁺⁺	gl	NaClO4	25°C	1.00M	U	M	K1=5.60		1971MMc (32894)2472
							K(Cu+L=CuH-1L+H)=1.31		
							K(Cu+L=CuH-2L+2H)=-8.21		
							K(Cu+2L=CuH-1L2+H)=4.50		
							K(CuL(Gly))=12.69		
							K(2Cu+2L=Cu2H-3L2+3H)=-4.69; K(Cu+L+Gly=CuH-1L(Gly)+H)=5.26		
Cu ⁺⁺	gl	KNO3	25°C	0.10M	U		K1=5.68		1969YHa (32895)2473
							K(CuH-1L+H)=4.18		
Cu ⁺⁺	gl	NaClO4	25°C	0.10M	U	H	K1=5.56		1968BLc (32896)2474
							K(CuH-1L+H)=4.06		
							K(CuH-1LOH+H)=9.29		
							K(CuH-1L+CuH-1LOH)=2.12		
							By calorimetry: DH(K1)=-25.5 kJ mol ⁻¹ , DS=20.9 J K ⁻¹ mol ⁻¹		
							DH(CuH-1L+H)=-28.8, DS=-18.8		
Cu ⁺⁺	sp	oth/un	?	?	U	M			1968DWa (32897)2475
							K(CuH-1L+A)=3.8		
							A=imidazole		
Cu ⁺⁺	gl	KNO3	25°C	0.10M	U		K1=5.56		1967MAb (32898)2476
							K(CuH-1L+H)=4.12		
							K(CuH-1LOH+H)=9.38		
							K(CuH-1L+L)=3.17		
							K(CuH-1L+CuH-2L)=2.20		
Cu ⁺⁺	cal	KNO3	22°C	0.10M	U	H			1967SSl (32899)2477
							DH(B2)=-52.3 kJ mol ⁻¹		
Cu ⁺⁺	gl	KCl	25°C	0.16M	U		K1=5.44		1965BPc (32900)2478
							K(CuH-1L+H)=4.20		
Cu ⁺⁺	gl	KCl	25°C	0.10M	U		K1=6.52		1964DCa (32901)2479
							K(CuH-1L+H)=4.79		
							K(Cu+L=CuH-1L+H)=1.73		
Cu ⁺⁺	gl	KCl	25°C	1.0M	U		K1=5.42		1964KMa (32902)2480
							K(CuH-1L+H)=4.38		
							K(CuH-1LOH+H)=9.52		
							K(CuH-1L(OH)2+H)=12.8		
							K(CuH-1L+CuH-1LOH)=-2.07		

K(CuH-1L+L)=2.92

Cu++ gl KCl 25°C 0.16M U M K1=4.96 1960KFb (32903)2481
K(CuH-1L+H)=3.90
K(CuH-1L+L)=3.07
K(CuH-1LOH+H)=9.37
K(CuH-1L(OH)2+H)=12.2
K(CuH-1LOH+CuH-1L)=2.30, K(CuH-1L+A)=3.85, A=imidazole

Cu++ gl NaCl 25°C 0.10M U K1=5.43 B2=8.64 1959BRb (32904)2482
K(CuH-1L+H)=4.17
K(Cu(H-1L)2+H)=9.67

Cu++ gl oth/un 25°C 0.20M U K1=6.04 1957Lda (32905)2483

Cu++ gl KCl 25°C .058M U T B2=12.44 1957LYa (32906)2484
0 C: B2=13.32

Cu++ gl KNO3 25°C 0.10M U K1=6.6 1957MMa (32907)2485

Cu++ gl KCl 0°C 0.09M U T H K1=6.58 1957MMa (32908)2486
K(CuLOH+H)=4.00
DH(K)=-33 kJ mol⁻¹, DS=25. 30 C: K1=7.17, K=5.35; 48.8 C: K1=5.73, K=5.38

Cu++ gl oth/un 25°C 0.02M U T K1=5.82 1956DRb (32909)2487
K(CuL(OH)2+H)=9.62
30 C: K1=5.50, K(CuLOH+H)=4.02; 40 C: K1=5.50, K=4.00

Cu++ gl oth/un 20°C ? U K1=5.88 1955DKc (32910)2488
K(CuLOH+H)=4.25
K(CuL(OH)2+H)=9.65
K(CuLOH+HL)=3.26
K(CuL2(OH)2+H)=10.20

Cu++ vlt oth/un 25°C 0.06M U B2=11.65 1954Lda (32911)2489
Medium: KH2PO4

Cu++ ix oth/un 22°C ? U K1=6.7 B2=10.7 1954Wfa (32912)2490

Cu++ gl oth/un 25°C ->0 U K1=6.04 B2=11.66 1951M0a (32913)2491

C4H8N2O4 H2L HDA CAS 19247-05-3 (1025)
Hydrazine-N,N'-diethanoic acid; HOOC.CH2.NH.NH.CH2.COOH

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

Cu++ gl KNO3 25°C 0.10M U K1=8.1 1983FSa (33071)2492

Cu++ gl KCl 30°C 0.10M U K1=8.1 B2=12.6 1957TBb (33072)2493

C4H8N2O4 H2L (6369)
 N(1)-Hydroxyasparagine, aspartyl-beta-hydroxamic acid; H2N.CH(CH2.CO.NHOH).COOH

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

Cu++ gl KCl 25°C 0.10M C 2003CDa (33125)2494

B(CuHL)=17.07
 B(Cu5H-4L4)=50.70

By spectrophotometry: B(CuHL)=17.44, B(Cu5H-4L4)=52.57.

 Cu++ gl KCl 25°C 0.20M C K1=13.24 1993FBa (33126)2495

B(CuHL)=16.41
 B(Cu4H-2L4)=52.82
 B(Cu4H-3L4)=42.30

C4H8N2O4 H2L CAS 36244-81-2 (4267)
 N-Carboxymethyliminoacethydroxamic acid; HOOC.CH2.NH.CH2.CO.NH.OH

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

Cu++ sp NaCl04 20°C 0.10M U 1981KPa (33139)2496

K(Cu+HL)=6.69

 Cu++ sp NaCl04 20°C 0.10M U K1=11.32 1978KPd (33140)2497

 Cu++ sp NaCl04 20°C 0.10M U K1=11.32 1972KMb (33141)2498

K(Cu+HL)=6.13
 K(CuL+H2O=CuLOH+H)=-5.92
 K(CuLOH+H2O=CuL(OH)2+H)=-10.26

C4H8N2O4 HL CAS 20154-32-9 (1548)
 N-Hydroxy-asparagine; HO.NH.CH(CH2.CO.NH2)COOH

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

Cu++ gl KCl 25°C 0.50M C K1=12.60 B2=19.07 1988LEb (33145)2499

B(Cu2L3)=37.45
 B(Cu3L4)=53.43
 B(CuH-1L2)=9.08

C4H8N2S HL CAS 2055-46-1 (1522)
 3,4,5,6-Tetrahydro-pyrimidine-2-thiol; C4H7N2.SH

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

Cu++ gl KNO3 30°C 0.50M U K1=8.94 1989WIa (33159)2500

C4H8N2S2 L CAS 120-79-6 (2820)
 N,N'-Dimethyl-dithiooxamide; CH3.NH.CS.CS.NH.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	sp	none	25°C	0.0	U		K1=7.89	1976AMc (33166)	2501

C4H8N3O3P		H2L					CAS 270249-45-1	(8827)	
Amino-1H-imidazol-4-ylmethylphosphonic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C		K1=13.65 B2=20.17 B(CuHL)=17.38 B(CuH2L2)=33.36 B(CuHL2)=27.09 B(CuH-1L2)=8.50	2003SBc (33170)	2502

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
Cu++	gl	NaNO3	25°C	0.10M	C	I M	K1=1.79 K(Cu(phen)+L)=1.84	1988LTc (33214)	2503
Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures									
Cu++	gl	oth/un	25°C	0.10M	U	I	K1=1.75 B2=2.70	1970CBe (33215)	2504
Medium: DMF, K1=2.90, K2=2.30, K3=2.21; Ethylene glycol, K1=4.30, K2=2.93, K3=1.67; 0.1, (CH3)2SO, K1=6.55, K2=6.26, K3=2.41									

Cu++	sp	NaClO4	30°C	0.10M	U		K1=1.97	1968RSc (33216)	2505
K1=2.36, alternative method of calculation									

Cu++	sp	oth/un	30°C	0.10M	U		K1=2.44	1965DSa (33217)	2506
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Cu++	sol	oth/un	25°C	->0	U		K1=2.17	1951LWa (33218)	2507

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
Cu++	dis	non-aq	25°C	100%	C	I		2000NYa (33289)	2508
K(Cu+2HA(o)=CuL2(o)+2H)=-8.08									
Medium: pentan-1-ol. Distribution between 0.10 M NaClO4 and pentan-1-ol. Also data for hexan-1-ol, heptan-1-ol and octan-1-ol.									

Cu++	oth	NaClO4	25°C	2.0M	U		K1=1.85	1990FTa (33290)	2509
Methods: averaged results from potentiometric, polarographic and spectrophotometric measurements.									

Cu++	gl	KNO3	25°C	0.20M	M	M		1988SKd (33291)	2510
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K(Cu(dien)+L)=2.61

K(H+L)=4.69

Cu++	sp	NaClO4	25°C	2.0M	C			K1=1.89	B2= 4.13	1976GFa (33292)	2511
Cu++	EMF	NaClO4	25°C	2.0M	C			K1=1.85	B2= 2.49	1975GMa (33293)	2512
Method: quinhydrone electrode.											
Cu++	vlt	NaClO4	25°C	2.0M	C			K1=1.83	B2= 2.54	1975GTa (33294)	2513
Method: polarography.											
Cu++	sp	NaClO4	25°C	2.00M	U	I		K1=1.89	B2=2.76	1974GMb (33295)	2514
Cu++	sp	NaClO4	25°C	2.00M	U			K1=2.08		1970GFa (33296)	2515
Cu++	sp	alc/w	25°C	100%	U			K1=3.24		1970SSF (33297)	2516
Cu++	vlt	NaClO4	25°C	2.00M	U			K1=1.54	B2=2.48	1968FPa (33298)	2517
								B3=2.30			
								B4=2.95			
Cu++	gl	NaClO4	25°C	3.0M	U			K1=1.82	B2=2.98	1964PCa (33299)	2518
Cu++	sol	oth/un	25°C	->0	U			K1=2.14		1951LWa (33300)	2519

C4H8O2S HL CAS 627-04-3 (3007)											
S-Ethylthioethanoic acid; CH3.CH2.S.CH2.COOH											
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values		Reference	ExptNo
Cu++	cal	NaNO3	25°C	1.0M	U	H		K1=2.57	B2= 4.77	1977ARa (33383)	2520
								K3=0.06			
DH(K1)=2.4 kJ mol ⁻¹ , DH(K2)=0											
Cu++	gl	diox/w	25°C	50%	U	M		K1=3.92		1972SGa (33384)	2521
								K(Cu(bpy)+L)=3.91			
Medium: 50% dioxan, 0.1 M NaClO4											
Cu++	gl	diox/w	30°C	50%	U			K1=3.5	B2=6.20	19710Ta (33385)	2522
Medium: 50% dioxan, 0.1 M KNO3											
Cu++	gl	diox/w	25°C	50%	U			K1=3.92		1969SAa (33386)	2523
Medium: 50% dioxan, 0.1 M NaClO4											
Cu++	gl	NaClO4	20°C	1.00M	U			K1=2.56	B2=4.76	1961SAa (33387)	2524
								B3=4.85			
Cu++	gl	oth/un	20°C	1.0M	U			K1=2.56	B2=4.76	1960SAb (33388)	2525
								B3=4.85			

Cu++ gl diox/w 30°C 50% U K1=4.55 B2=8.15 1956IFa (33389)2526

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

Cu++ gl NaClO4 25°C 0.50M C K1=2.74 B2= 4.35 1995PLa (33431)2527
B(CuH-1L)=-3.96

Cu++ EMF oth/un 25°C 1.00M U K1=2.47 B2=4.33 1971WAc (33432)2528
B3=5.42

Cu++ gl oth/un 25°C 0.10M U I K1=2.91 B2=4.80 1970CBe (33433)2529
Medium: Ethylene glycol, 0.1 M. K1=4.65, K2=3.45.
0.1 in (CH3)2SO, K1=6.06, K2=4.86, K3=2.36

Cu++ EMF NaClO4 25°C 1.0M U K1=2.74 B2=4.34 1967TGa (33434)2530
K3=0.4

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

Cu++ oth NaClO4 25°C 2.0M U K1=2.66 1990FTa (33559)2531
Methods: averaged results from potentiometric, polarographic and
spectrophotometric measurements.

Cu++ vlt NaClO4 25°C 2.00M U K1=2.68 B2=4.45 1975FPa (33560)2532
B3=4.57
B4=4.89

Cu++ EMF NaClO4 25°C 2.0M C K1=2.63 B2= 4.31 1975GMa (33561)2533
Method: quinhydrone electrode.

Cu++ sp NaClO4 25°C 2.00M U I K1=2.67 B2=4.71 1974GMb (33562)2534

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

Cu++ oth NaClO4 25°C 2.0M U K1=1.87 1990FTa (33599)2535
Methods: averaged results from potentiometric, polarographic and
spectrophotometric measurements.

Cu++ vlt NaClO4 25°C 2.00M U K1=1.93 B2=3.07 1975FPa (33600)2536
B3=3.12

B4=3.14

Cu++ EMF NaClO4 25°C 2.0M C K1=1.86 B2= 3.12 1975GMa (33601)2537
Method: quinhydrone electrode.

Cu++ sp NaClO4 25°C 2.00M U I K1=1.83 B2=2.82 1974GMb (33602)2538

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

Cu++ vlt NaClO4 25°C 2.00M U K1=1.72 B2=2.62 1975FPa (33642)2539
B3=2.71
B4=2.73

Cu++ EMF NaClO4 25°C 2.0M C K1=1.80 B2= 2.63 1975GMa (33643)2540
Method: quinhydrone electrode.

Cu++ ISE NaClO4 25°C 1.00M C K1=1.52 B2=2.24 1974BJa (33644)2541

Cu++ sp NaClO4 25°C 2.00M U I K1=1.77 B2=2.25 1974GMb (33645)2542

C4H8O3 HL Ethoxyacetic ac CAS 627-03-2 (2996)
Ethoxyacetic acid; C2H5.O.CH2.COOH

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

Cu++ cal NaNO3 25°C 1.0M U H K1=1.80 B2= 2.89 1977ARa (33663)2543
DH(K1)=2.1 kJ mol⁻¹, DH(K2)=5.0

Cu++ EMF NaClO4 20°C 1.00M U K1=1.79 B2=2.87 1961SAa (33664)2544
B3=3.20
B4=2.8
Method: quinhydrone electrode.

Cu++ oth NaClO4 20°C 1.0M U K1=1.79 B2=2.87 1960SAb (33665)2545
B3=3.20
B4=2.8

C4H8S L CAS 110-01-0 (150)
Tetrahydrothiophene; cyclo(-CH2.CH2.S.CH2.CH2-)

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

Cu++ gl alc/w 25°C 50% C I K1=0.02 1979SRa (33722)2546
In 96% DMF, 1.0 M NaClO4: K1=0.19

Cu++ cal non-aq 25°C 100% U HM 1976MDb (33723)2547
K(Cu(hfac)2+L)=2.25 in A

K(Cu(hfac)2+L)=1.89 in B

K(Cu(hfac)2+L)=2.0 in C

Metal: Bis(hexafluoroacetylacetonato)copper(II), (Cu(hfac)2). DH=-29 (in A), DH=-20 (in B) and DH=-19 (in C) kJ mol⁻¹. (A=CCl4, B= CH2Cl and C=o-Cl2C6H4)

Cu++ sp alc/w 25°C 50% C K1=0.02 1975RSa (33724)2548
Medium: 50% EtOH, 1.0 M NaClO4

C4H9N L Pyrrolidine CAS 123-75-1 (2997)

Pyrrolidine;

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

Cu++ gl oth/un 25°C 0.20M U K1=6.4 B2=12.4 1964PCa (33753)2549
K3=5.4
K4=5.2

Cu++ gl KNO3 25°C 0.20M U K1=6.4 B2=12.40 1961BMa (33754)2550
K3=5.4
K4=5.2

C4H9NO L Morpholine CAS 110-91-8 (318)
Perhydro-1,4-oxazine, Tetrahydro-1,4-oxazine; C4H8NO

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

Cu++ vlt KNO3 25°C 1.0M C 1982PBc (33778)2551
B3=14.6
B4=15.5

Method: polarography.

Cu++ sp oth/un 25°C ? U M 1981CKb (33779)2552
K(Cu(C6H5)4porphin+L)=-0.26

C4H9NO2 HL N-Methylalanine (5666)
2-(N-Methylamino)propanoic acid; CH3.NH.CH(CH3)COOH

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

Cu++ gl KCl 25°C 0.10M U K1=7.58 B2=14.25 1977KDa (33796)2553

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

Cu++ gl oth/un 25°C 0.10M M M K1=8.19 B2=14.96 2000MOa (33814)2554
B(CuLA)=18.99

Medium: NaOH. A: 2,2'-Dipicolylamine.

Cu++ gl KNO3 25°C 0.10M U M K1=8.34 B2=15.35 1998SYa (33815)2555
B(CuAL)=12.02
B(CuH-1AL)=5.81

HA is 2,3,4-trihydroxybutanoic acid (threonic acid).

Cu++ ISE KNO3 25°C 0.16M C TIH K1=8.416 1990CSd (33816)2556
Method: Cu ion selective electrode. DH(K1)=-17.7 kJ mol⁻¹, DS(K1)=102.
J K⁻¹ mol⁻¹. Data for 35 and 45 C and for 30% and 50% v/v EtOH/H₂O.

Cu++ sp NaClO4 25°C 1.0M C 1989SMb (33817)2557
K(CuH-2L+OH)=-1.7

Cu++ gl NaClO4 25°C 0.10M C M K1=8.34 B2=15.35 1988CLa (33818)2558
B(CuL(acetylglycinate))=10.76

Cu++ cal NaClO4 25°C 0.10M C H 1988LGA (33819)2559
DH(K1)=-25.8 kJ mol⁻¹, DH(K2)=-27.6 kJ mol⁻¹. For HA=N-acetylglycine,
DH(B(CuAL))=-24.3 kJ mol⁻¹, DS(B(CuAL))=124 J K⁻¹ mol⁻¹.

Cu++ gl NaClO4 25°C 0.10M U M 1986CLb (33820)2560
K(Cu(bpy)+L)=8.23
K(Cu(phen)+L)=8.16

Cu++ gl NaClO4 37°C 0.10M U K1=7.16 B2=12.90 1981NSb (33821)2561

Cu++ gl NaClO4 37°C 0.15M U K1=8.10 B2=15.13 1981NSb (33822)2562

Cu++ gl oth/un 30°C 0.0 U T H K1=8.53 B2=15.57 1964ICa (33823)2563
At 20 C: K1=8.55, K2=7.05 By calorimetry:(25 C):DH(K1)=-22.6 kJ mol⁻¹
DS=87.8 J K⁻¹ mol⁻¹; DH(K2)=-23.8,DS=54.3

Cu++ gl KCl 20°C 0.10M U K1=8.26 B2=15.10 1963IPa (33824)2564
K(CuL+H)=1.2

Cu++ gl oth/un 25°C 0.01M U B2=15.2 1956NEb (33825)2565

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

Cu++ gl NaClO4 37°C 0.15M U M 1999NKb (33863)2566
B(CuH(orn)L)=24.73
B(Cu(orn)L)=15.41
K(CuH(orn)+L)=7.06
K(CuL+H+orn)=16.63

K(CuL+orn)=7.34

Cu++ gl NaClO4 37°C 0.15M U M 1997NAb (33864)2567
B(CuAL)=15.12

K(CuA+L)=6.52
K(CuL+A)=7.02

H2A is cysteic acid.

Cu++ gl NaCl04 37°C 0.15M U M 1994NAb (33865)2568

B(Cu(pn)L)=18.34
B(Cu(tn)L)=17.06
B(CuH(tn)L)=23.10
K(Cu(pn)+L)=7.89

pn is 1,2-diaminopropane; tn is 1,3-diaminopropane. Ligand is DL-isomer.
K(CuL+pn)=10.24; K(Cu(tn)+L)=7.59, K(CuL+tn)=8.96.

Cu++ gl NaCl04 37°C 0.15M U M 1994NAc (33866)2569

B(Cu(gln)HL)=20.21
B(Cu(glu)HL)=23.06
B(Cu(glu)L)=17.41
K(Cu(glu)+L)=8.89

K(CuL+glu)=9.31.

Cu++ gl alc/w 30°C 40% M M K1=9.47 B2=16.46 1988ARb (33867)2570

K(CuA+L)=8.36
B(CuAL)=17.86

Medium: 40% EtOH/H2O, 0.05 M KNO3. HA=acetylacetone

Cu++ gl NaCl04 37°C 0.15M U M 1982NSd (33868)2571

B(Cu(imidazole)L)=11.67
B(Cu(imidazole)2L)=15.30

Cu++ gl NaCl04 37°C 0.15M U M 1982NVb (33869)2572

B(CuH(histamine)L)=21.68
B(Cu(histamine)L)=17.21

Cu++ vlt NaCl04 25°C 0.40M U K1=8.2 B2=12.0 1979NSa (33870)2573

B3=14.3
B(Cu(OH)L)=11.2
B(Cu(OH)L2)=14.7
B(Cu(OH)2L)=14.9

Cu++ gl KCl 25°C 0.20M C M 1977NGa (33871)2574

B(CuH-1LA)=5.09
B(CuH-1LB)=5.03
B(CuH-1LC)=4.65
K(CuH-1L2+A=CuH-1LA+L)=0.63

K(CuH-1L2+B=CuH-1LB+L)=0.40, K(CuH-1L2+C=CuH-1LC+L)=0.50

HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++ gl KCl 25°C 0.20M C 1976NGd (33872)2575

K(CuH-1A2+L=CuH-1AL+A)=5.09
K(CuH-1C2+L=CuH-1CL+C)=5.03
K(CuH-1D2+L=CuH-1DL+D)=4.65

HA is glycylglycine; HC is glycyl-DL-alpha-alanine;
HD is DL-alanyl-DL-alanine.

Cu++	gl	NaNO3	25°C	0.10M	M	K1=8.319	B2=15.450	1975SSd (33873)	2576	
Cu++	gl	KCl	25°C	0.20M	U	K1=8.02	B2=14.72	1973GSb (33874)	2577	
Cu++	gl	KCl	25°C	0.05M	U	K1=8.01	B2=14.76	1972Gmb (33875)	2578	
Cu++	gl	KCl	25°C	0.05M	U	M	K1=8.13	B2=14.93	1972GSc (33876)	2579

B(CuLA)=15.30
B(CuL(Ser))=15.06
B(CuL(Thr))=15.16
K(Cu+L+HTyr)=15.18

B(CuL(Phe))=15.21. HA=norvaline

Cu++	gl	KCl	25°C	0.05M	U	M		1972GSc (33877)	2580
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B(CuA(Gly))=15.28
B(CuL(Ala))=15.27

Cu++	gl	oth/un	25°C	0.16M	U		K1=7.84	B2=14.48	1970LBa (33878)	2581
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Cu++	gl	KCl	40°C	0.20M	U	T	H	K1=8.01	B2=14.54	1965Smb (33879)	2582
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K1=8.34(15 C),8.21(25 C); K2=6.85(15 C),6.72(25 C)
DH(K1)=-22.6 kJ mol⁻¹,DS=79.4 J k⁻¹ mol⁻¹; DH(K2)=-22.2,DS=54.3

C4H9NO2 HL 3-Aminobutyric CAS 2835-82-7 (2894)
3-Aminobutanoic acid; CH3.CH(NH2).CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++	gl	NaCl04	37°C	0.15M	U	M			1999NKb (33934)	2583
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B(CuH(orn)L)=24.22
B(Cu(orn)L)=15.24
K(CuH(orn)+L)=6.55
K(CuL+H+orn)=17.06

K(CuL+orn)=8.08

Cu++	gl	NaCl04	37°C	0.15M	U	M			1997NAb (33935)	2584
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B(CuAL)=14.50
K(CuA+L)=5.90
K(CuL+A)=7.34

H2A is cysteic acid.

Cu++	gl	NaCl04	37°C	0.15M	U	M			1994NAb (33936)	2585
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B(Cu(pn)L)=18.04
B(Cu(tn)L)=16.07
B(CuH(tn)L)=22.02
K(Cu(pn)+L)=7.59

pn is 1,2-diaminopropane; tn is 1,3-diaminopropane. Ligand is DL-isomer.

Cu++ gl oth/un 25°C 0.15M U K1=7.26 B2=13.53 1958Lda (34020)2606

Cu++ gl NaClO4 25°C 0.10M U K1=7.30 B2=13.65 1954BCb (34021)2607

C4H9NO2 HL N-Ethylglycine CAS 627-01-0 (3010)
N-Ethylglycine; CH3.CH2.NH.CH2.COOH

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

Cu++ gl NaClO4 25°C 0.10M U K1=7.34 B2=13.55 1954BCb (34037)2608

C4H9NO2S HL CAS 3335-52-2 (8306)
2-(Aminoethyl)thioethanoic acid;

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

Cu++ gl KNO3 25°C 0.50M U H K1=7.25 B2=13.40 1983HTa (34041)2609

K(Cu+HL)=1.42

K(CuL+HL)=1.19

K(CuL+H)=3.70

By calorimetry: DH(K1)=-20.0 kJ mol⁻¹, DH(K2)=-46.6, DH(Cu+HL)=0.0

C4H9NO2S HL Methylcysteine CAS 1187-84-4 (84)
2-Amino-3-methylmercaptopropanoic acid; H2N.CH(CH2.S.CH3)COOH

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

Cu++ gl NaNO3 25°C 0.10M M M K1=7.2 2002SKa (34073)2610

B(CuAL)=16.43

A is picolylamine

Cu++ oth NaClO4 35°C 0.10M C K1=5.35 B2=10.10 1998TEa (34074)2611

Method: paper electrophoresis.

Cu++ gl KCl 25°C 0.20M C K1=7.65 B2=14.13 1987SPa (34075)2612

Cu++ gl KNO3 25°C 0.10M U K1=7.88 B2=14.72 1964Lma (34076)2613

C4H9NO3 HL CAS 76412-53-8 (2545)
2-Amino-2-methyl-3-hydroxypropanoic acid; HO.CH2.C(CH3)(NH2).COOH

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

Cu++ sp KNO3 25°C 1.00M U K1=8.00 B2=14.93 1975JPa (34116)2614

K(CuHL2+H)=10.14

K(CuL2+H)=11.12

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
Cu++	gl	NaNO3	25°C	0.10M	C	M	K1=8.16 B2=14.67 B(CuH-1L)=1.53 B(CuH-2L)=-8.62 B(CuLA)=12.70 B(CuHLA)=16.92	2004SSa (34181)	2615
B(CuH-1LA)=6.00. HA is 6-aminopenicillanic acid.									
Cu++	gl	NaNO3	25°C	0.10M	M	M	K1=8.22 B2=14.90 B(CuAL)=17.68	2002SKa (34182)	2616
A is picolylamine									
Cu++	gl	oth/un	25°C	0.10M	M	M	K1=8.01 B2=14.73 B(CuHLA)=25.65 B(CuLA)=18.49	2000MOa (34183)	2617
Medium: NaOH. A: 2,2'-Dipicolylamine.									
Cu++	gl	NaNO3	25°C	0.10M	M	M	K1=8.04 B2=14.81 B(CuAL)=13.32 B(CuH-1AL)=5.63	1997SKc (34184)	2618
HA is glycyl-DL-leucine.									
Cu++	gl	KNO3	20°C	0.01M	U		K1=8.20 B2=14.48	1996EMa (34185)	2619
Cu++	gl	KNO3	25°C	0.10M	C	TIH R	K1=7.98 B2=14.66 B(CuH-1L2)=4.81 B(CuH-2L2)=-6.04	1995BEa (34186)	2620
IUPAC evaluation. 0.05 M KCl(Tenatative): K1=8.02, B2=14.8 0.15 M, 37 C: K1=7.79, B2=14.30, B(CuH-1L2)=1.60, B(CuH-1L2)=4.69									
Cu++	gl	KNO3	25°C	0.10M	M	M	K1=8.68 B2=16.54 K(Cu(ada)+L)=6.01	1995SHc (34187)	2621
ada: N-(acetamido)-iminodiethanoic acid. K(H+L)=8.99.									
Cu++	gl	KCl	25°C	0.20M	C		K1=7.91 B2=14.52 B(CuH-1L2)=4.68 B(CuH-2L2)=-6.05 K(CuL2=CuH-1L2+H)=-9.84 K(CuH-1L2=CuH-2L2+H)=-10.73	1994JKa (34188)	2622
Cu++	gl	NaClO4	25°C	0.20M	U	T M	K1=8.09 B2=15.32 K(CuA+L)=8.11	1993PPa (34189)	2623
A is 2,2'-bipyridylamine. Also data for 35 and 45 C.									
Cu++	vlt	NaNO3	25°C	1.0M	C	M	K1=7.72 B2=14.35 B(CuL(tartrate))=10.85	1992KMa (34190)	2624
Method: polarography. Medium: pH 8.0.									
Cu++	vlt	NaNO3	25°C	1.0M	C			1992KMa (34191)	2625

K1eff=7.72

B2eff=14.35

Method: differential pulse polarography. Medium: pH 8.0

Cu++ gl KNO3 35°C 0.20M C M K1=7.92 1992YKa (34192)2626
B(Cu(edda)L)=18.64
B(Cu(en)L)=17.06
K(Cu(edda)+L)=4.14
K(Cu(en)+L)=9.16

Cu++ gl NaCl 37°C 0.15M U M 1991HWa (34193)2627
B(CuLA)=13.52

H2A is 7-oxabicyclo-[2,2,1]-hept-5-ene-2,3-dicarboxylic acid

Cu++ gl NaClO4 25°C 0.10M C M K1=8.02 B2=14.68 1988CLa (34194)2628
B(CuL(acetylglycinate))=10.35

Cu++ cal NaClO4 25°C 0.10M C H 1988LGA (34195)2629
DH(K1)=-27.5 kJ mol⁻¹, DH(K2)=-28.0 kJ mol⁻¹. For HA=N-acetylglycine,
DH(B(CuAL))=-25.2 kJ mol⁻¹, DS(B(CuAL))=114 J K⁻¹ mol⁻¹.

Cu++ gl KNO3 25°C 0.10M C M K1=7.99 B2=15.10 1988ZZa (34196)2630
ternary complexes: B(CuHL(DOPA))=24.60; B(CuL(DOPA))=17.93;
B(CuL(Dopamine))=18.02

Cu++ gl oth/un 20°C 0.10M U K1=8.26 B2=14.54 1987MTa (34197)2631

Cu++ gl NaClO4 25°C 0.10M U M 1986CLb (34198)2632
K(Cu(bpy)+L)=7.78
K(Cu(phen)+L)=7.74

Cu++ gl NaCl 37°C 0.15M U M B2=13.87 1986XHa (34199)2633
B(CuHL)=11.25
B(CuH-1L)=2.89
B(CuHL(His))=22.10
B(CuL(His))=17.37

B(CuH-1LHis)=7.768

Cu++ gl NaCl 25°C 0.25M C K1=7.888 B2=14.504 1984A0a (34200)2634

Cu++ gl KCl 25°C 0.10M C M T K1=7.789 B2=14.30 1982KBd (34201)2635
B(CuH-1L)=1.60
B(CuH-1L2)=4.69
B(CuL(histamine))=16.43
B(CuHL(histamine))=20.36

B(CuH-1L(histamine))=6.46. Other models also considered

Cu++ gl NaNO3 25°C 0.10M C K1=7.893 B2=14.53 1982KPc (34202)2636
B(CuH-1L2)=4.79
B(CuH-2L2)=-5.78

Cu++ gl NaNO3 25°C 0.10M U K1=8.05 B2=14.94 1981ISb (34203)2637
K values for D, L and DL isomers. For the allo isomer, K1=7.47, K2=6.48

Cu++ gl oth/un 30°C 0.10M U M B2=14.77 1981REb (34204)2638
K3=3.30
B(CuAL)=15.36
B(CuAL2)=19.01
B(CuA2L)=18.30

Medium not stated. HA is phenylalanine. K(H+L)=9.20.

Cu++ gl NaClO4 30°C 0.10M C M K1=7.95 B2=14.62 1980ASb (34205)2639
ternary complex with glycyl-sarcosine

Cu++ vlt NaClO4 30°C 0.10M C B2=14.9 1980RSd (34206)2640
B3=18.68

Method: polarography.

Cu++ vlt KNO3 30°C 1.00M C M K1=7.80 B2=14.15 1980SGc (34207)2641

Cu++ gl KNO3 30°C 1.00M U M K1=7.80 B2=14.15 1980SGd (34208)2642
B(CuL(malonate))=11.50
B(CuL(oxalate))=12.10

Cu++ ISE diox/w 25°C 20% U K1=8.28 B2=15.21 1980YTa (34209)2643

Cu++ gl KNO3 25°C 0.10M C M 1979YSa (34210)2644
B(Cu(His)L)=17.08

Cu++ cal NaNO3 25°C 0.10M C H 1978ISc (34211)2645
For L-Thr and DL-Thr: DH(K1)=-25.6 kJ mol⁻¹, DS=68 J K⁻¹ mol⁻¹. DH(K2)=-
-20.7, DS=62. For L-allo-Thr: DH(K1)=-23.1, DS=65, DH(K2)=-18.8, DS=61.

Cu++ gl KNO3 25°C 0.10M U M T K1=7.946 B2=14.61 1977BP a (34212)2646
B(CuL(His))=17.46
B(CuHL(His))=21.43

Cu++ gl KNO3 25°C 0.10M C M T K1=7.99 B2=14.68 1977DOa (34213)2647
B(CuH-1L2)=4.84
B(CuH-2L2)=-5.94
B(CuL(Gly))=15.17
B(CuL(Sar))=14.70

Cu++ gl KCl 25°C 0.20M C M 1977NGa (34214)2648
B(CuH-1LA)=4.95
B(CuH-1LB)=4.98
B(CuH-1LC)=4.81
K(CuH-1L2+A=CuH-1LA+L)=0.49

K(CuH-1L2+B=CuH-1LB+L)=0.35, K(CuH-1L2+C=CuH-1LC+L)=0.68

HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++ gl KCl 25°C 0.20M C 1976NGd (34215)2649
K(CuH-1A2+L=CuH-1AL+A)=4.95
K(CuH-1C2+L=CuH-1CL+C)=4.98
K(CuH-1D2+L=CuH-1DL+D)=4.81

HA is glycylglycine; HC is glycyl-DL-alpha-alanine;
HD is DL-alanyl-DL-alanine.

Cu++ gl KNO3 25°C 0.10M C H T K1=7.86 B2=14.43 1976PSa (34216)2650
DH(B2)=-53.1 kJ mol⁻¹. No stereoselectivity with DL-Thr

Cu++ gl NaClO4 25°C 3.00M C HM K1=8.597 B2=16.031 1975BWa (34217)2651
B(CuL(Asn))=16.471
DH(K1)=-18.0; DH(B2)=-47.0 kJ mol⁻¹. DS(K1)=104.2; DS(B2)=149.4 J K⁻¹ mol⁻¹

Cu++ gl KNO3 25°C 1.00M U 1975JPa (34218)2652
K(CuHL2+H)=9.97
K(CuL2+H)=10.92

Cu++ gl KCl 25°C 0.05M U T T K1=8.02 B2=14.72 1972GMb (34219)2653
20-35C
K1(20 C)=8.10, K1(35 C)=7.88, K2(20 C)=6.79, K2(35 C)=6.52

Cu++ gl KCl 25°C 0.05M U M T K1=8.03 B2=14.77 1972GSc (34220)2654
B(CuL(Phe))=15.09
K(Cu+L+HTyr)=15.06

Cu++ gl KCl 25°C 0.05M U M 1972GSc (34221)2655
B(CuL(Gly))=15.24
B(CuL(Ala))=15.23
B(CuLA)=15.22
B(CuL(Ser))=14.95

B(CuLB)=15.16. HA=norvaline, HB=2-aminobutanoic acid

Cu++ cal KCl 25°C 0.05M U H T K1=7.90 B2=14.50 1971GNa (34222)2656
DH(K1)=-230.1 kJ mol⁻¹, DH(K2)=181.6, DS(K1)=75 J K⁻¹ mol⁻¹, DS(K2)=42

Cu++ sp NaClO4 22°C 1.00M U K1=7.85 B2=14.71 1970JPa (34223)2657
K(CuH-1L+H)=9.89
KCuH-1L2+H)=11.19

Cu++ gl oth/un 25°C 0.16M U K1=7.95 B2=14.69 1970LBa (34224)2658

Cu++ gl KNO3 40°C 0.20M U T H K1=8.78 B2=15.25 1968Rmb (34225)2659
K1=8.20(15 C),8.06(25 C); K2=6.74(15 C),6.63(25 C)
DH(B2)=-41.4 kJ mol⁻¹, DS=142 J K⁻¹ mol⁻¹

Cu++ gl oth/un 30°C 0.0 U T H K1=8.41 B2=15.32 1964ICa (34226)2660
At 20 C:K1=8.44, K2=6.96. By calorimetry(25 C):DH(K1)=-22.2 kJ mol⁻¹
DS=87.8 J K⁻¹ mol⁻¹, DH(K2)=-25.5,DS=46

Cu++ vlt oth/un 25°C 0.06M U B2=14.54 1952Lda (34227)2661
Medium: KH2PO4

C4H9NO3 HL Homoserine CAS 1927-25-9 (578)
2-Amino-4-hydroxybutanoic acid; HO.CH2.CH2.CH(NH2).COOH

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

Cu++ ISE diox/w 25°C 20% U K1=8.32 B2=15.24 1980YTa (34348)2662

Cu++ gl KCl 25°C 0.10M U K1=7.93 B2=14.42 1971BDc (34349)2663

Cu++ gl oth/un 25°C 0.16M U K1=8.00 B2=14.69 1970LBa (34350)2664

C4H9NO3 HL CAS 4385-95-9 (1894)
2-Aminooxybutanoic acid;CH3.CH2.CH(O.NH2).COOH

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

Cu++ gl KNO3 25°C 0.50M U K1=4.23 1985Wta (34360)2665

Cu++ gl KNO3 30°C 0.20M M K1=6.51 B2=12.68 1984JMa (34361)2666

C4H9NO3 HL (8269)
2-Methyl-2-aminooxypropanoic acid;

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

Cu++ gl KNO3 30°C 0.20M M K1=6.77 B2=11.80 1984JMa (34367)2667

C4H9NO3 HL CAS 924-49-2 (538)
4-Amino-3-hydroxybutanoic acid; H2N.CH2.CH(OH).CH2.COOH

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

Cu++ gl NaClO4 37°C 0.15M U M 1999NKb (34372)2668

B(CuH(orn)L)=26.71
B(Cu(orn)L)=17.54
K(CuH(orn)+L)=9.04
K(CuL+H+orn)=13.69

K(CuL+orn)=4.52

Cu++ gl NaClO4 37°C 0.15M U M 1997NAb (34373)2669

B(CuHAL)=25.85

H2A is cysteic acid.

Cu++ gl NaClO4 37°C 0.15M U M 1994NAb (34374)2670

B(Cu(pn)L)=20.38
B(Cu(tn)L)=19.13

K(Cu(pn)+L)=9.93

K(CuL+pn)=7.36

pn is 1,2-diaminopropane; tn is 1,3-diaminopropane.

K(Cu(tn)+L)=9.66, K(CuL+tn)=6.11.

Cu++ gl NaClO4 37°C 0.15M U M 1994NAC (34375)2671

B(Cu(gln)L)=16.66

K(Cu(gln)+L)=9.07

K(CuL+gln)=3.64

B(Cu(glu)HL)=26.37

B(Cu(glu)L)=17.39, K(Cu(glu)+L)=8.87, K(CuL+glu)=4.37.

Cu++ gl NaClO4 37°C 0.15M U M 1993NAd (34376)2672

B(CuHLNi)=19.33

B(CuHLZn)=19.28

Cu++ gl KCl 25°C 0.20M C H 1987KSa (34377)2673

K(Cu+HL)=5.88

K(2Cu+2HL=Cu2L2H+H)=3.01

K(Cu+2HL=CuL2+2H)=-7.29

DH(2Cu+2HL=Cu2L2H+H)=4.8 kJ mol⁻¹, DS=74 J K⁻¹ mol⁻¹; DH(Cu+2HL=CuL2+2H)=2.3 DS=-132

Cu++ gl NaClO4 37°C 0.15M U M 1982NSd (34378)2674

B(Cu(imidazole)2L)=16.59

Cu++ gl NaClO4 37°C 0.15M U M 1982NVb (34379)2675

B(CuH(histamine)L)=27.14

B(Cu(histamine)L)=19.70

Cu++ gl NaClO4 37°C 0.15M U K1=13.02 B2=19.1 1981NSa (34380)2676

B(Cu2L2)=28.1

Cu++ vlt NaClO4 30°C 0.10M C 1980RSd (34381)2677

B3=19.49

Method: polarography.

Cu++ gl KCl 25°C 0.10M U K1=12.961 B2=18.856 1975BMa (34382)2678

B(Cu2L2)=28.696

Cu++ gl oth/un 25°C 0.16M U K1=6.48 B2=12.54 1970Lba (34383)2679

C4H9NO3 HL CAS 5835-28-9 (3013)

N-(2-Hydroxyethyl)glycine; HO.CH2.CH2.NH.CH2.COOH

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

Cu++ gl oth/un 20°C 0.05M U 1957PAa (34391)2680

K(CuL2OH+H)=9.68

C4H9NO3 L CAS 2788-84-3 (3014)
Serine methyl ester; H2N.CH(CH2.OH).CO.OCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++	gl	NaNO3	25°C	0.10M	M			K(CuH-1A+L)=2.81	1997SKc (34395)	2681
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HA is glycyl-DL-leucine.

C4H9NO4 HL CAS 17149-11-0 (8049)
(1-Hydroxymethyl)serine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++	gl	KNO3	25°C	0.10M	M			K1=7.84 B2=14.39 B(CuH-1L2)=5.04 B(CuH-2L2)=-5.49	1995KKb (34398)	2682
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C4H9NO5 H2L Homocysteic ac. CAS 504-33-6 (6333)
2-Amino-4-sulfobutanoic acid, Homocysteic acid; HSO3.CH2.CH2.CH(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++	gl	NaClO4	25°C	0.10M	C	I		K1=8.03 B2=14.50 B(CuL(Ala))=15.22 B(CuLA)=14.57	1983TSa (34401)	2683
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I=0.01: B(CuL(Ala))=15.57, B(CuLA)=14.77 In 60% dioxan, I=0.01:
B(CuL(Ala))=20.03, B(CuLA)=18.99. A=delta-N-trimethylornithine

C4H9N3O2 HL CAS 20238-94-2 (1136)
Glycyl-glycinamide; H2N.CH2.CO.NH.CH2.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++	gl	NaClO4	25°C	0.10M	U			K1=4.88 B(CuH-1L)=0.19 B(CuH-2L)=-8.20 B(CuH-3L)=-18.02	1975DBa (34409)	2684
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Cu++	oth	oth/un	?	?	U			K1=6.71	1973KKc (34410)	2685
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Cu++	gl	KNO3	25°C	0.10M	U			K1=4.80 K(CuH-1L+H)=5.05 K(CuH-2L+H)=7.96 K(CuH-2L=CuH-2LOH+H)=-9.77	1973YNb (34411)	2686
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Cu++	gl	NaClO4	25°C	0.10M	U	M		K1=5.05 K(CuH-1L+H)=5.10 K(CuH-2L+H)=7.29 K(Cu(bpy)+L)=4.92	1972SGd (34412)	2687
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B(CuL(bpy))=12.92

K(CuH-1L(bpy))+H)=7.4

C4H9N3O2 L CAS 21954-96-1 (4269)

Iminobisacetamide; HN(CH2.CO.NH2)2

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

Cu++ sp oth/un 20°C 0.25M U K1=4.37 1968PRb (34414)2688

C4H9N3O2 HL CAS 57-00-1 (8275)

Methylguanidoethanoic acid;

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

Cu++ gl NaClO4 20°C 0.10M U T H K1=3.13 B2= 5.52 1983SSg (34415)2689

Also data for 30 and 40 C. DH(B2)=-10.2 kJ mol⁻¹, DS(B2)=204 J K⁻¹ mol⁻¹.

C4H9N3O2 L CAS 121532-11-4 (8091)

N-(2-Aminoethyl)oxamide;

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

Cu++ gl KNO3 25°C 0.10M C 1996CHd (34422)2690

B(CuH-1L)=-0.50

B(CuH-2L)=-8.83

B(CuH-3L)=-19.28

B(Cu2H-2L)=-3.08

B(Cu3H-4L2)=-7.51, B(Cu3H-5L2)=-15.28

C4H9N3O4 H2L CAS 39158-78-0 (4271)

Iminodiacethydroxamic acid; HN(CH2.CO.NH.OH)2

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

Cu++ sp NaClO4 20°C 0.10M U K1=16.11 1972KMb (34429)2691

K(Cu+HL)=8.94

K(CuL(OH)+H)=7.30

K(CuL(OH)2+H=CuLOH)=10.20

C4H9N3S2 HL CAS 14812-36-3 (4272)

Iminobis(thioacetamide); HN(CH2.CS.NH2)2

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

Cu++ gl KCl 20°C 0.25M U K1=11.29 B2=18.18 1968PRb (34434)2692

By spectrophotometry K1=11.47, K2=7.05

C4H9N5 L (6904)

5-(3-Aminopropyl)-1H-tetrazole; NH2.CH2.CH2.CH2.CHN4

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

Cu++ gl NaNO3 20°C 0.10M U K1=8.08 B2=15.06 1978LEb (34436)2693

C4H10NO4P H2L (1510)
2-Amino-3-(methylphosphinato)propanoic acid; HOOC.CH(NH2).CH2.P(O2H)CH3

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

Cu++ gl KCl 25°C 0.20M C K1=8.15 B2=14.47 1991KJa (34443)2694
B(CuH-1L2)=2.72

C4H10NO5P H3L (6029)
2-Amino-3-phosphonatobutanoic acid; CH3.CH(H2O3P).CH(NH2).COOH

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

Cu++ gl KCl 20°C 0.10M U K1=9.41 1987BDc (34446)2695
K(Cu+HL)=3.75

C4H10NO5P H3L CAS 6323-99-5 (6043)
2-Amino-4-phosphonatobutanoic acid; H2O3P.CH2.CH2.CH(NH2)COOH

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

Cu++ gl KCl 25°C 0.20M C K1=9.19 B2=14.95 1989KFb (34454)2696
B(CuHL)=15.59
B(CuH2L2)=29.40
B(CuHL2)=22.45

Cu++ gl KCl 20°C 0.10M U K1=8.86 1987BDc (34455)2697
K(Cu+HL)=4.93

C4H10NO6P H3L (6967)
N-(Phosphonomethyl)serine; H2O3P.CH2.NH.CH(CH2OH)COOH

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

Cu++ gl KCl 25°C 0.20M C K1=11.90 B2=16.33 1994JKa (34468)2698
B(CuHL)=15.61
B(CuH-1L)=3.36
B(CuH2L2)=29.08
B(CuHL2)=24.44

B(CuH-1L2)=6.01, B(CuH-2L2)=-4.84.

C4H10NO6P H2L CAS 6401-59-8 (2399)
O-Phospho-2-methylserine;

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

Cu++ gl KNO3 25°C 0.20M C K1=9.59 B2=15.88 1978MAc (34470)2699
K(Cu+HL)=4.58
K(CuL+H)=5.06

C4H10N06P H2L CAS 1114-81-4 (2400)
O-Phospho-threonine;

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

Cu++ gl KNO3 25°C 0.20M C K1=9.61 B2=15.20 1978MAc (34478)2700
K(Cu+HL)=5.12
K(CuL+H)=5.18

C4H10N2 L CAS 56123-06-9 (8023)
1,3-Diamino-2-methylenepropane;

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

Cu++ gl KNO3 25°C 0.50M U K1=9.27 B2=16.22 1975HSb (34486)2701

C4H10N2 L (7831)
3-Aminopyrrolidine;

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

Cu++ gl KCl 25°C 0.10M C K1=8.24 B2=15.01 2001KSA (34492)2702

C4H10N2 L Piperazine CAS 110-85-0 (2826)
Piperazine; cyclo(-CH2.CH2.NH.CH2.CH2.NH-)

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

Cu++ ISE R4N.X 25°C 2.00M U K1=3.32 B2=6.38 1969PMb (34500)2703
K3=2.89
K4=2.87

Medium: NH4NO3

C4H10N2O L CAS 32012-16-1 (5512)
2-Methylalaninamide; NH2.C(CH3)2.CO.NH2

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

Cu++ gl NaClO4 25°C 0.10M U K1=4.58 B2=9.28 1983HNB (34507)2704
B(CuH-1L)=-1.71
B(CuH-2L)=-8.79
B(CuH-1L2)=2.29
B(CuH-2L2)=-5.25

C4H10N2O L CAS 1857-19-8 (3015)

Sarcosine methylamide; CH3.NH.CH2.CO.NH.CH3

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  oth/un 25°C 0.01M U          K1=4.86  B2=8.90  1959DLb (34510)2705
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C4H10N2O2          L                      (3588)
2,3-Diaminopropanoic acid methyl ester; CH2(NH2).CH(NH2).CO.OCH3
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  oth/un 25°C 0.10M U T      K1=8.99  B2=16.75  1971HMd (34520)2706
K1(37 C)=8.70, K1(50 C)=8.35, K2(37 C)=7.49, K2(50 C)=7.13
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Cu++      gl  oth/un 25°C 0.10M U      M                      1971HMd (34521)2707
                                K(CuLOH+H)=6.89
                                B(CuLA)=18.77
                                B(CuHLA)=23.91
HA=2,3-diaminopropanoic acid
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Cu++      gl  oth/un 25°C 0.10M U      M      K1=8.99  B2=16.75  1968HMb (34522)2708
                                K(CuLOH+H)=6.83
Ternary complexes with 2,3-diaminopropanoic acid
*****
C4H10N2O2          HL                      CAS 1883-09-6 (45)
2,4-Diaminobutanoic acid; H2N.CH2.CH2.CH(NH2)COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Cu++      gl  KNO3  20°C 0.10M C      M      K1=11.28 B2=17.24  1997LbC (34535)2709
                                B(CuHL)=16.76
                                B(CuHL2)=25.47
                                B(CuAL)=17.28
                                B(CuHAL)=27.64
B(CuH2AL)=35.99, B(CuH4AL)=49.68. A: 4-azaocane-1,8-diamine.
B(CuH-1(dien)L)=9.43. B(CuBL)=18.75; B: 1,3-diaminopropane.
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Cu++      gl  NaClO4 37°C 0.15M U      M                      1997NAb (34536)2710
                                B(CuHAL)=24.40
                                B(CuAL)=17.71
                                K(CuA+L)=9.11
                                K(CuL+A)=6.77
H2A is cysteic acid.
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Cu++      gl  NaClO4 37°C 0.15M U      M                      1990NTb (34537)2711
                                B(Cu(glu)HL)=25.56
                                B(Cu(glu)L)=17.23
                                K(Cu(glu)+H+L)=17.04
                                K(CuHL+glu)=8.57
K(Cu(glu)+L)=8.71, K(CuL+glu)=6.29
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B(CuH2L2)=33.24

B(CuHL2)=26.89

Cu++ gl KNO3 25°C 0.10M U M 1977BPa (34547)2721
B(CuL(His))=26.75

Cu++ gl KNO3 25°C 0.10M C K1=10.50 B2=19.02 1976BPb (34548)2722
B(CuHL)=17.14
B(CuH2L2)=33.19
B(CuHL2)=26.98

Cu++ gl oth/un 20°C .025M U K1=10.4 B2=19.48 1968HMa (34549)2723
K(Cu+HL)=7.15
K(Cu+2HL)=13.00
K(Cu+HL+L)=17.22

C4H10N2O2 HL (2557)
2-Amino-3-(methylamino)propanoic acid, CH3.NH.CH2.CH(NH2)COOH

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

Cu++ gl KNO3 25°C 0.10M C K1=10.39 B2=19.67 1989NOa (34571)2724
B(CuHL)=15.92
B(CuH2L2)=30.87
B(CuHL2)=25.87

C4H10N2O2 HL EDMA (2784)
Diaminoethane-N-ethanoic acid; H2N.CH2.CH2.NH.CH2.COOH

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

Cu++ gl KNO3 25°C 0.10M C M K1=13.473 B2=21.16 1993MOa (34579)2725
B(CuHL)=16.25
B(CuHL2)=26.5
B(CuH-1L)=4.298
B(CuH-2L)=-7.56

B(CuL(Ala))=19.214, B(CuL(Arg))=18.961, B(CuHL(Lys))=29.500,
B(CuL(Val))=19.152

Cu++ gl KCl 25°C 0.50M C K1=12.854 B2=20.373 1985LEa (34580)2726

Cu++ gl KNO3 25°C 0.10M U M 1973YBa (34581)2727
K(CuL+H)=3.19
K(CuL+OH)=4.77
K(CuL+py)=2.09
K(CuL+A)=4.09

K(CuL+B)=1.75. A=n-butylamine, H2B=4-phenolsulphonic acid

Cu++ vlt oth/un 25°C 0.20M U K1=13.40 B2=21.44 1969FKa (34582)2728
Medium: Na ethanoate

 C4H10N2O3 HL CAS 4475-93-8 (5892)
 Threoninehydroxamic acid;
 2-Amino-N,3-dihydroxybutanamide; CH3.CH(OH).CH(NH2).CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.50M	C		B2=19.507 B(CuH-1L2)=9.918 B(Cu2H-1L2)=20.377	1989LEc (34599)	2729

 C4H10N2O4S HL ACES CAS 7365-82-4 (7488)
 N-(2-Acetamido)-2-aminoethanesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C	M	K1=5.55	2001AAa (34611)	2730

Also data for ternary complexes with 5'-GMP, 5'-IMP and 5'-CMP.

Cu++	gl	KNO3	25°C	0.10M	C		K1=4.76	2000ADa (34612)	2731
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 C4H10N4O L CAS 16352-04-8 (3016)
 Guanylethylurea; H2N.C(:NH).CH2.CH2.NH.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KCl	30°C	0.10M	U		K1=9.7 B2=17.3	1960DUa (34641)	2732

 C4H10O2S L CAS 111-48-8 (4275)
 3-Thiapentane-1,5-diol; HO.CH2.CH2.S.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	alc/w	25°C	50%	C	I	K1=0.18	1979SRa (34673)	2733

In 50% EtOH/H2O, 1.0 M NaClO4: K1=0.31

 C4H10S L CAS 352-93-2 (4259)
 Diethyl sulfide; C2H5.S.C2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	sp	alc/w	25°C	50%	C	I	K1=-0.47	1979SRa (34717)	2734

Medium: 50% EtOH (0.24 mol fraction), 0.1 M NaClO4. In 96% DMF: K1=0.29

 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
Cu++	vlt	NaClO4	20°C	0.70M	C		K1=6.6	1991CSa (34799)	2735

Method: differential pulse polarography.

C4H11NO L CAS 110-73-6 (900)
2-(Ethylamino)ethanol; CH3.CH2.NH.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	vlt	KNO3	25°C	? C				B3eff=15.57	1980AAb (34828)	2736
Cu++	vlt	KNO3	30°C	0.50M	U			B(CuL(OH)2)=17.2 B(CuL2(OH)2)=18.9	1967FHa (34829)	2737
Cu++	gl	oth/un	25°C	0.10M	U			K1=5.0 B2=9.10 K3=3.5 K4=2.8	1965DOb (34830)	2738
Cu++	vlt	KNO3	25°C	0.50M	U			B4=16.8	1955FKa (34831)	2739

C4H11NO L CAS 124-68-5 (948)
2-Amino-2-methylpropan-1-ol; CH3.C(NH2)(CH3).CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	none	25°C	0.0	U			K1=5.38 B2=8.94	1986SAa (34847)	2740
Cu++	vlt	KNO3	25°C	0.50M	U			B(CuL(OH)2)=18.8 B(CuL2(OH)2)=21.1	1971HSa (34848)	2741

C4H11NO L CAS 5332-73-0 (5421)
3-Methoxypropylamine; CH3O.CH2.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	vlt	oth/un	25°C		C			B2=10.5	1994KNd (34853)	2742

Method: differential pulse polarography. Medium not stated.

C4H11NO L CAS 108-01-0 (3590)
N,N-Dimethyl-2-aminoethanol; HO.CH2.CH2.N(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	vlt	KNO3	25°C	1.0M	U			K(Cu(OH)2L2)=20.51	1994KNa (34866)	2743

Method: Pseudopolarography with differential pulse anodic stripping voltam.

Cu++ vlt oth/un 25°C C 1994KNd (34867)2744
K(Cu+2OH+2L)=20.5
Method: differential pulse polarography. Medium not stated.

Cu++ vlt KNO3 25°C 1.0M C 1983AAb (34868)2745
K(Cu+2OH+L)=17.6
K(Cu+2OH+2L)=18.8
Method: polarography. Medium pH >11

Cu++ vlt KNO3 25°C ? C 1980AAb (34869)2746
B3eff=14.76

Cu++ sp KNO3 25°C 0.50M U 1970HHa (34870)2747
K(Cu+2L+2OH=CuH-2L2+2H2O)=19.7

Cu++ gl oth/un 25°C 0.10M U K1=4.7 B2=8.70 1965DOb (34871)2748
K3=3.3
K4=2.9

C4H11NOS L (1220)
1-Hydroxy-3-thia-5-aminopentane; HO.CH2.CH2.S.CH2.CH2.NH2

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

Cu++ gl KNO3 25°C 0.50M C H K1=5.243 B2=10.01 1977HGa (34880)2749
K(CuL2+OH)=4.39
DH(K1)=-31.6 kJ mol-1, DS(K1)=-5.9 J K-1 mol-1
DH(K2)=-36.1 kJ mol-1 DS(K2)=-29.7 J K-1 mol-1

Cu++ gl oth/un 20°C 0.0 U T H K1=5.37 B2=10.33 1959LBb (34881)2750
DH(K1)=-21 kJ mol-1, DS=29; DH(K2)=-25, DS=13. 10 C: K1=5.53, K2=5.15;
30 C: K1=5.26, K2=4.85

Cu++ gl NaClO4 30°C 1.0M U TI K1=5.44 B2=10.41 1953Mca (34882)2751
50 C: K1=4.99, K2=4.54. At I=0, 30 C: K1=5.08, K2=4.90

C4H11NO2 L Diethanolamine CAS 111-42-2 (89)
2,2'-Iminodiethanol; HN(CH2.CH2.OH)2

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

Cu++ gl oth/un 25°C 1.5M U M K1=4.67 B2= 8.72 1998SPa (34912)2752
K(Cu+3L)=10.20
Madium: Na2SO4; the same data measured by sp.:K1=4.60;B2=7.91;B3=10.54

Cu++ gl oth/un 25°C 1.5M U K1=4.67 B2= 8.72 1998SPb (34913)2753
B3=10.20

The same measured spectrophotometrically: 4.60; 7.91; 10.54
Medium: Na2SO4

Cu++ nmr KNO3 25°C 1.00M U K1=4.2 B2=7.4 1990CIId (34914)2754
B(CuH-1L2)=0.2
B(CuH-2L2)=-8.2

Cu++ sp KNO3 25°C 1.00M U K1=4.38 B2=8.39 1989CGa (34915)2755
B(CuH-1L2)=1.39
B(CuH-2L2)=-6.97

Cu++ gl KNO3 25°C 1.0M U M K1=4.38 B2= 8.08 1986CTa (34916)2756
B(CuH-1L2)=1.4
B(CuH-2L2)=-5.9
B(CuAL)=16.7
B(CuAH-1L)=9.9

B(CuAH-2L)=3.4. H2A is salicylic acid

Cu++ nmr NaNO3 25°C 1.00M U K1=4.2 B2=7.4 1986TCa (34917)2757
B(CuH-1L2)=0.2
B(CuH-2L2)=-8.2

Cu++ sp R4N.X 25°C 2.00M C I K1=4.74 B2=8.64 1983DBa (34918)2758
K3=1.66

Cu++ vlt KNO3 30°C 2.00M U 1971SSe (34919)2759
B(CuL2(OH)2)=19.86

Cu++ gl oth/un 20°C U K1=3.8 1968DPa (34920)2760
K(CuH-1L2+H)=6.40
K(CuH-2L2+H)=8.0
K(CuH-3L2+H)=12.0

Combination of glass electrode and spectroscopy

Cu++ vlt KNO3 30°C 0.50M U 1967FHa (34921)2761
B(CuL(OH)2)=18.2
B(CuL2(OH)2)=19.8

Cu++ gl oth/un 25°C 0.43M U K1=4.75 B2=8.42 1966SKe (34922)2762
K3=2.75

Medium: CH2OHCH2NH3NO3

Cu++ gl oth/un 25°C 0.10M U K1=5.4 B2=9.60 1965DOb (34923)2763
K3=3.2
K4=1.8

Cu++ vlt KNO3 30°C 0.50M U 1963STb (34924)2764
B(CuL(OH)3)=18.97
B(CuL2OH)=14.10
B(CuL2(OH)2)=19.28

Cu++ vlt KNO3 30°C 0.50M U 1962FHa (34925)2765
B(CuL2(OH)2)=19.4

Cu++ vlt KNO3 25°C 0.50M U 1955FKa (34926)2766
B4=16.00

C4H11NO2 L CAS 115-69-5 (949)
2-Amino-2-methyl-1,3-propanediol; HO.CH2.C(NH2)(CH3).CH2.OH

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

Cu++ gl KNO3 25°C 0.50M U K1=4.44 1999CCb (34978)2767
B(CuH-1L)=-2.29
B(CuH-1L2)=1.58
B(CuH-2L2)=-6.54

Cu++ vlt KNO3 25°C 0.50M U 1971HSa (34979)2768
B(CuL2(OH)2)=21.5

C4H11NO3 L (7115)
(2S,3S)-4-Aminobutane-1,2,3-triol; HOCH2CH(OH)CH(OH)CH2NH2

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

Cu++ gl KNO3 25°C 0.10M C 1995JKb (34985)2769
B(Cu2H-2L2)=1.41
B(Cu2H-3L2)=-6.46
B(Cu2H-4L2)=-15.30

Data also for the (2R,3S)- isomer

C4H11NO3 L Tris buffer CAS 77-86-1 (550)
2-Amino-2-(hydroxymethyl)-propan-1,3-diol; (HO.CH2)3C.NH2

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

Cu++ gl KNO3 25°C 0.50M U K1=3.82 1999CCb (35023)2770
B(CuH-1L)=-2.138
B(CuH-1L2)=1.28
B(CuH-2L2)=-6.09

Cu++ gl NaCl 25°C 0.15M C K1=4.17 1983BSa (35024)2771
B3=11.01
B(CuH-1L)=-2.39
B(CuH-1L2)=1.28
B(CuH-2L2)=-6.208

Cu++ gl KNO3 25°C 0.10M C M K1=4.05 1979FHa (35025)2772
K(Cu(ATP)+L)=3.50

Cu++ vlt NaCl04 25°C 2.00M U 1975BMb (35026)2773
B3=9.55

Cu++ vlt KNO3 25°C 0.50M U 1971HSa (35027)2774
B(CuL2(OH)2)=21.7

Cu++ gl KNO3 25°C 0.10M U K1=3.95 B2=7.63 1969Bmd (35028)2775
K3=3.47
K4=3.0
K(CuH-1L+H)=6.0
K(2CuH-1L=(CuH-1L)2)=2.2
K(CuH-2L2+H)=7.90, K(CuH-1L2+H)=6.32

Cu++ gl KNO3 ? 0.10M U K1=3.98 B2=7.47 1962HSa (35029)2776
K3=3.2

C4H11NO8P2 H5L CAS 2439-99-8 (2129)
N-Carboxymethyl-N,N-bis(methylenephosphonic acid); HOOC.CH2.N(CH2.PO3H2)2

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

Cu++ gl KNO3 25°C 0.10M C K1=16.5 2000SDa (35084)2777
K(CuL+H)=5.47
K(CuHL+H)=3.78
K(CuH2L+H)=2.8
K(CuL+OH)=3.1

Cu++ gl KCl 25°C 0.20M C K1=15.97 1997BKb (35085)2778
B(CuHL)=21.14
B(CuH2L)=24.67
B(CuH-1L)=5.56

Cu++ gl KCl 25°C 0.20M C K1=15.97 1994JKa (35086)2779
B(CuHL)=21.14
B(CuH2L)=24.67
B(CuH-1L)=5.56

Cu++ gl KCl 25°C 0.15M U TIH K1=15.24 1991KMc (35087)2780
K(Cu+HL)=9.48
K(Cu+H2L)=6.74
At 60 C K1=14.83; K(Cu+HL)=10.32; K(Cu+H2L)=7.21

Cu++ sp KNO3 20°C 0.50M U K1=15.75 1974NKa (35088)2781
K(Cu+HL)=8.56
K(Cu+H2L)=6.15
K(Cu+H3L)=3.18
K(Cu+H4L)=2.79

Cu++ gl KNO3 25°C 0.10M U K1=12.53 1965WRa (35089)2782
K(CuHL+H)=4.14
K(CuL+H)=5.89

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
Cu++	gl	NaClO4	25°C	0.10M	U	T H		K(CuL+H)=5.8	1983BVa (35130)	2783

Cu++	gl	KNO3	20°C	0.25M	U	I		K1=9.76 B2=19.20	1973MSd (35131)	2784
0.25 KNO3, 25% MeOH: K1=10.56, K2=9.90; 25% EtOH: K1=10.76, K2=9.94										

C4H11NS			HL					CAS 21100-03-8	(2592)	
4-Aminobutanethiol; H2N.CH2.CH2.CH2.CH2.SH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U	T H		K(CuL+H)=8.8	1983BVa (35142)	2785

C4H11N2O4P			H2L					CAS 53626-52-1	(9088)	
2[(Aminoacetyl)amino]ethylphosphonic acid;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U			K1=7.55 K(CuL+H)=5.21 *K(CuL)=-5.26	1975HMc (35145)	2786

C4H11N2O4P			H2L					(7118)		
Alanylaminomethylphosphonic acid;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C			K1=6.36 B2=12.06 B(CuH-1L)=1.586 B(CuHL)=11.82 B(CuH-2L)=-7.09 B(CuH-1L2)=4.65	1995HLA (35149)	2787

C4H11N2O4P			H2L					(7121)		
Glycyl-1-aminoethylphosphonic acid;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.10M	U			K1=6.86 B2=12.60 B(CuHL)=12.32 B(CuH-1L)=1.864 B(CuH-2L)=-6.62 B(CuH-1L2)=5.37	1995HLA (35154)	2788

C4H11N3			L					CAS 171868-16-9	(7833)	

cis-3,4-Diaminopyrrolidine;

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

Cu++ gl KCl 25°C 0.10M C B2=17.53 2001KSa (35158)2789
B(CuHL)=16.8
B(CuH2L2)=32.38
B(CuHL2)=25.27

For the trans-Isomer: B2=14.05, B(CuHL)=14.68, B(CuH2L2)=28.40
B(CuHL2)=21.59

C4H11N3O L (2704)

2-(Dimethylamino)acetamidoxime; (CH3)2N.CH2.C(:NOH)NH2

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

Cu++ gl NaCl04 25°C 0.10M C K1=6.602 B2=11.284 1986S0b (35164)2790
B(Cu2H-2L2)=4.98
K(4Cu+4L=Cu4H-6L4+6H)=3.27

C4H11N3O HL (6986)

3-(Methylamino)propanamidoxime; CH3.NH.CH2.CH2.C(:NOH)NH2

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

Cu++ gl NaCl 25°C 0.10M C B(CuHL)=10.5
K(Cu+HL)=6.82
K(Cu+2HL)=12.9
B(-7,5,4)=4.13

B(p,q,r); pH+qCu+rHL=Hp(Cu)q(HL)r. B(-8,5,4)=-0.62, B(-6,4,4)=6.16

C4H11N3O2 HL CAS 471915-94-3 (8550)

2,4-Diamino-N-hydroxybutanamide;

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

Cu++ gl KCl 25°C 0.20M C B2=19.87 2002ECa (35171)2792
B(CuH2L)=23.20
B(CuHL)=19.38
B(CuH2L2)=36.73
B(CuHL2)=29.05

B(CuH-1L2)=8.9, B(Cu2HL2)=38.08.

C4H11N5 L CAS 657-24-7 (2998)

Dimethylbiguanide; CH3.NH.C(:NH).NH.C(:NH).NH.CH3

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

Cu++ sp oth/un 32°C ? U K1=9.51 B2=17.44 1960RAB (35181)2793

Cu++ gl oth/un 32°C 0.05M U K1=8.50 B2=15.57 1956SRa (35182)2794

C4H11N5 L CAS 41283-85-6 (2999)

Ethylbiguanide; CH3.CH2.NH.C(:NH).NH.C(:NH).NH2

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

Cu++ gl oth/un 32°C 0.05M U K1=9.47 B2=17.03 1956SRa (35185)2795

C4H11N5O L CAS 53490-38-3 (3017)

N-(2-Hydroxyethyl)biguanide; HO.CH2.CH2.NH.C(:NH).NH.C(:NH).NH2

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

Cu++ gl KCl 30°C 0.20M U K1=9.96 B2=16.91 1960SRa (35188)2796

C4H11N5O2 HL CAS 20004-00-6 (2934)

Iminobis(acetamidoxime); HN(CH2.C(:NOH)NH2)2

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

Cu++ gl NaClO4 25°C 1.00M C K1=10.95 B2=14.76 19850Sa (35191)2797

K(CuH-1L2+H)=6.76

C4H11N5O3S HL CAS 92507-94-3 (2732)

2-Sulfoethylbiguanide; HO3S.CH2.CH2.NH.C(:NH).NH.C(:NH)NH2

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

Cu++ sol oth/un 20°C 0.11M U 1984CFa (35194)2798

Kso=-20.62

C4H11N2O3P HL (7917)

(Glycylamino)methyl(methylphosphinic acid);

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

Cu++ gl KNO3 25°C 0.10M C K1=5.638 B2= 9.99 2001LKa (35196)2799

B(CuHL)=9.57

B(CuH-1L)=0.176

B(CuH-2L2)=-6.16

B(CuH-1L2)=3.427

C4H11O2PS2 H3L CAS 298-06-6 (210)

O,O'-Diethyldithiophosphoric acid; (C2H5O)2P(S)SH

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

Cu++ sp alc/w 25°C 75% U B2=9.88 1970BPa (35212)2800

Medium: 75% MeOH, 0.3 M NaClO4

C4H1103P H2L CAS 4923-84-6 (524)
Butylphosphonic acid; C4H9PO3H2

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

Cu++ gl KNO3 25°C 0.10M U K1=4.14 1981WNa (35242)2801

C4H1104P H2L (5867)
n-Butyl phosphoric acid; C4H9.0.PO(OH)2

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

Cu++ gl NaNO3 25°C 0.10M U I K1=3.12 1992MSd (35277)2802

Also data for 20-50% v/v dioxane/H2O, 0.10 M NaNO3.
In 50% dioxane/H2O, 0.10 M NaNO3: K1=4.83.

Cu++ gl NaNO3 25°C 0.10M C M K1=3.12 1989MSd (35278)2803

K(Cu(bpy)+L)=3.27; K(Cu(phen)+L)=3.23

Cu++ gl NaNO3 25°C 0.10M C K1=3.12 1988MSa (35279)2804

C4H12NO3P H2L AMPPH CAS 18108-24-2 (222)
1-Amino-2-methylpropylphosphonic acid; (CH3)2.CH.CH(NH2).PO3H2

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

Cu++ gl KCl 25°C 0.10M U M K1=8.3 B2=14.77 1989NIb (35301)2805
B(CuL(Phe))=15.78; B(CuL(Tyr))=18.35; B(CuLA)=18,98. HA=dioxyphenylalanine

Cu++ gl KNO3 25°C 0.10M U K1=9.47 B2=17.32 1979WNb (35302)2806

B(CuHL)=13.71
B(CuHL2)=22.53
B(CuH2L2)=26.7
B(CuH-1L)=1.7

Cu++ gl KNO3 25°C 0.10M U K1=9.17 B2=16.95 1972WNb (35303)2807

B(CuHL)=13.70
B(CuH2L2)=27.51
B(CuHL2)=22.37

C4H12NO3PS H2L CAS 68694-58-6 (8085)
1-Amino-3-methylthiopropylphosphonic acid;

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

Cu++ gl KCl 25°C 0.20M C K1=8.21 B2=14.89 1998KMa (35314)2808

C4H12N2 L CAS 881-93-8 (3581)

1,2-Diamino-2-methylpropane; H2N.CH2.C(NH2)(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	var	U	I			1964NKa (35320)	2809
K1=10.40+0.404I+0.234I^(1.5)-0.190I^(2). K2=9.07+1.261I-1.050I^(1.5)+0.324I^(2). *****										
C4H12N2		L						CAS 590-88-5	(3580)	
1,3-Diaminobutane; H2N.CH2.CH2.CH(NH2).CH3										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	var	U				1965NKf (35327)	2810
K1=9.67+0.905I-0.822I^(3/2)+0.307I^(2). K2=7.25+1.169I-1.116I^(3/2)+0.402I^(2). *****										
C4H12N2		L	Putrescine					CAS 110-60-1	(360)	
1,4-Diaminobutane; H2N.(CH2)4.NH2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	20°C	0.10M	C	M		K1=8.62 B2=13.40	2000GLa (35349)	2811
B(CuHL)=15.83 B(CuH-1L2)=0.065 B(CuAHL)=19.02 H2A is cytidine 5'-monophosphoric acid.										

Cu++	gl	NaClO4	20°C	0.10M	C	M		K1=8.62 B2=13.40	1996LGa (35350)	2812
B(CuHL)=15.83 B(CuH-1L2)=0.065 B(CuAL)=11.40 B(CuHAL)=18.20 HA=adenosine. B(CuH-1AL2)=6.67										

Cu++	gl	NaClO4	20°C	0.10M	C	M		K1=8.62 B2=13.40	1996LGb (35351)	2813
B(CuHL)=15.83 B(CuH-1L2)=0.065 B(CuAL)=11.40 B(CuAHL)=18.20 A=adenosine. B(CuH-1AL2)=6.67										

Cu++	gl	NaClO4	20°C	0.10M	U			K1=8.62 B2=13.40	1993LGa (35352)	2814
B(CuHL)=15.83 B(CuH-1L2)=0.065										

Cu++	gl	NaClO4	20°C	0.10M	U				1991WBa (35353)	2815
B(CuH-1L2)=0.065										

Cu++	gl	NaClO4	20°C	0.10M	C				1989LWc (35354)	2816
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B(CuH-1L2)=0.065

C4H12N2 L CAS 563-86-0 (59)
DL-2,3-Diaminobutane; H2N.CH(CH3).CH(CH3).NH2

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

Cu++ gl KNO3 25°C 0.10M U H K1=11.265 B2=20.92 1977PSb (35371)2817
B(CuHL)=14.67

By calorimetry, DH1=-52.7 kJ mol⁻¹, DS1=38.9 J K⁻¹ mol⁻¹, DH(B2)=-100.0,
DS(B2)=64.1

Cu++ gl KCl 25°C 0.10M U K1=10.86 B2=20.14 1970ABc (35372)2818
DL and D isomers

Cu++ gl KNO3 25°C 0.50M U T K1=11.39 B2=21.21 1954BCa (35373)2819
0 C: K1=12.22, K2=10.65

C4H12N2 L Dimeen CAS 110-70-3 (125)
N,N'-Dimethyl-1,2-diaminoethane; CH3.NH.CH2.CH2.NH.CH3

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

Cu++ gl KCl ns ns C K1=9.545 B2=16.76 1989FPa (35394)2820
B(Cu2H-2L2)=6.612
B(CuH-2L)=-9.940
B(CuH-1L)=1.114

Cu++ gl KNO3 20°C 1.00M C K1=9.543 B2=16.718 1986FPa (35395)2821
B(CuL(OH))=0.965
B(CuL2(OH))=-10.337
B(Cu2L2(OH)2)=6.539

Cu++ gl KNO3 25°C 0.10M C M K1=10.071 B2=17.140 19840Ya (35396)2822
B(CuL(Ala))=17.696
B(CuL(Val))=17.423
B(CuL(Phe))=17.412
B(CuL(Trp))=17.748

B(CuL(Tyr))=18.249; B(CuHL(Tyr))=27.450; B(CuLA)=17.138; B(CuLB)=18.274;
B(CuHLB)=28.379. HA=0-Me-tyrosine, H2B=5-hydroxytryptophan.

Cu++ gl KCl 25°C 1.0M U K1=10.27 B2=17.58 1983DPa (35397)2823
B(Cu2H-1L2)=7.13

Cu++ gl NaClO4 25°C 0.10M U K1=12.27 B2=20.73 1981ATa (35398)2824

Cu++ gl KCl 25°C 0.20M C HM K1=9.94 B2=16.97 1976GSd (35399)2825
B(CuL(gly))=16.70
B(CuL(en))=19.27
B(CuHL2)=22.66

Cu++ gl KCl 25°C 0.10M U K1=9.69 B2=16.34 1954IGa (35409)2835

C4H12N2 L CAS 108-00-9 (2661)
N,N-Dimethyl-1,2-diaminoethane; (CH3)2N.CH2.CH2.NH2

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

Cu++ gl KNO3 25°C 0.10M C M K1=9.812 B2=16.55 2002Y0a (35438)2836
B(CuH-1L)=2.322
B(CuH-2L)=-8.904
B(CuAL)=15.141
B(CuH-1AL)=6.391
B(CuHBL)=25.152, B(CuBL)=16.709, B(CuH-1BL)=6.701; B(CuCL)=15.405,
B(CuH-1CL)=6.825. HA is gly-gly, H2B is gly-L-tyr, HC is gly-L-trp.

Cu++ gl KCl 25°C 0.20M C HM K1=9.24 B2=16.20 1976GSd (35439)2837
B(CuL(Gly))=16.70
B(CuL(en))=18.55
By calorimetry: DH(K1)=-40.5 kJ mol⁻¹, DH(B2)=-80.7, DH(CuL(en))=-98.7,
DH(CuL(pn))=-90.4. Other data also

Cu++ gl KCl 25°C 0.20M C H K1=9.24 B2=16.20 1976SGa (35440)2838
By calorimetry: DH(K1)=-40.5 kJ mol⁻¹, DS(K1)=41 J K⁻¹ mol⁻¹;
DH(B2)=-80.7, DS(B2)=39.

Cu++ gl KCl 25°C 0.20M C HM 1976SGa (35441)2839
B(Cu(gly)L)=16.70
K(CuL+gly)=7.46
K(Cu(gly)+L)=8.63
By calorimetry: DH(Cu(gly)L)=-70.7 kJ mol⁻¹, DS(Cu(gly)L)=82 J K⁻¹ mol⁻¹;
DH(CuL+gly)=-30.2, DH(Cu(gly)+L)=-45.1.

Cu++ gl KCl 25°C 0.20M C HM 1976SGa (35442)2840
B(Cu(en)L)=18.55
K(CuL+en)=9.31
K(Cu(en)+L)=7.98
By calorimetry: DH(Cu(en)L)=-98.7 kJ mol⁻¹, DS(Cu(en)L)=24 J K⁻¹ mol⁻¹;
DH(CuL+en)=-58.2, DH(Cu(en)+L)=-45.3.

Cu++ gl KCl 25°C 0.20M C HM 1976SGa (35443)2841
B(Cu(pn)L)=16.98
K(CuL+pn)=7.74
K(Cu(pn)+L)=7.33
By calorimetry: DH(Cu(pn)L)=-90.4 kJ mol⁻¹, DS(Cu(pn)L)=22 J K⁻¹ mol⁻¹;
DH(CuL+pn)=-50.1, DH(Cu(pn)+L)=-40.9. pn is 1,3-diaminopropane.

Cu++ sp oth/un 25°C var U 1973Y0a (35444)2842
K(Cu+CuL2=2CuL)=2.10 pH 5.6

Cu++ nmr alc/w var 50% U H 1973Y0a (35445)2843

$$K(\text{Cu}+\text{CuL}_2=2\text{CuL})=2.72$$

pH=5.6. DH=-7.0 kJ mol⁻¹, DS=16 J K⁻¹ mol⁻¹

 Cu++ gl KNO3 25°C 0.50M U K1=9.26 B2=16.28 1972BFb (35446)2844
 K(2CuL+2OH=Cu2L2(OH)2)=15.39
 K(CuL+2OH)=8.77

Cu++ gl oth/un 25°C 0.0 U I K1=9.08 B2=15.91 1967NJ a (35447)2845
 In I M NaClO4: K(Cu+H2L=CuL+2H)=-6.635-1.018SQRTI/(1+1.294SQRTI)-0.267I
 K(CuL+H2L=CuL2+2H)=-8.888-1.018SQRTI/(1+1.447SQRTI)-0.301I

Cu++ gl KNO3 25°C 0.50M U T K1=10.53 B2=19.58 1954BCa (35448)2846
 Ø C: K1=11.13, K2=9.88

Cu++ gl KCl 25°C 0.10M U K1=9.23 B2=15.96 1954IGa (35449)2847

 C4H12N2 L CAS 110-72-5 (1307)
 N-Ethyl-1,2-diaminoethane; C2H5.NH.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++	gl	diox/w	30°C	50%	U	I M			1986EBa (35461)2848	
								K(CuA+L)=8.78		
								K(CuC+L)=9.61		

A=2,2'-dipyridylamine, C=2,2'-dipyridylketone

Cu++	gl	diox/w	30°C	50%	U	M		K1=9.64 B2=17.82	1984EBa (35462)2849	
								B(CuLA)=8.96		

A=5-nitro-1,10-phenanthroline

Cu++	sp	diox/w	30°C	50%	U	M		K1=9.64 B2=17.82	1982PPb (35463)2850	
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Cu++	gl	NaClO4	25°C	0.10M	U			K1=12.15 B2=21.68	1981ATa (35464)2851	
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Cu++	gl	none	25°C	0.00	U			K1=9.67 B2=17.44	1969NTa (35465)2852	
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Cu++	gl	KNO3	25°C	0.50M	U T			K1=10.19 B2=18.57	1952BMa (35466)2853	
								Ø C: K1=10.55, K2=8.81		

Cu++	gl	KNO3	13°C	0.50M	U T H				1952BMb (35467)2854	
								AtØ C: DH(K1)=-22.6 kJ mol ⁻¹ , DS=121 J K ⁻¹ mol ⁻¹ ; DH(K2)=-26.8, DS=71		

C4H12N2 L CAS 6291-84-5 (2679)
 N-Methyl-1,3-diaminopropane; CH3.NH.CH2.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++	gl	NaClO4	25°C	0.10M	C			K1=8.67 B2=13.76	19800Ta (35473)2855	
								B(Cu2L2H-2)=5.28		

C4H12N2 L Butanediamine CAS 20759-15-3 (58)
meso-2,3-Diaminobutane; H2N.CH(CH3).CH(CH3).NH2

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

Cu++ gl KNO3 25°C 0.10M U H K1=10.538 B2=19.79 1977PSb (35481)2856
B(CuHL)=13.91
By calorimetry, DH1=-46.9 kJ mol⁻¹, DS1=44.3 J K⁻¹ mol⁻¹, DH(B2)=-96.8,
DS(B2)=54

Cu++ gl oth/un 25°C 0.10M U K1=10.41 B2=19.44 1970ABc (35482)2857

Cu++ gl KNO3 25°C 0.50M U T K1=10.72 B2=20.06 1954BCa (35483)2858
0 C: K1=11.50, K2=10.05

C4H12N2O L CAS 2752-17-2 (312)
Bis-(2-aminoethyl)ether; H2N.CH2.CH2.O.CH2.CH2.NH2

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

Cu++ gl KNO3 25°C 0.50M U H K1=8.970 B2=12.75 1974BVa (35494)2859
K(CuL+OH)=5.48
By calorimetry: DH(K1)=-39.9 kJ mol⁻¹, DS=38, DH(K2)=-18.8, DS=8,
DH(CuLOH)=-38.9, DS=-24

Cu++ gl oth/un 20°C 0.0 U T H K1=8.82 B2=13.11 1959LBb (35495)2860
DH(K1)=-46.0 kJ mol⁻¹, DS=13; DH(K2)=-15, DS=29. 10 C: K1=9.16, K2=4.58;
30 C: K1=8.58, K2=4.35; 40 C: K1=8.35, K2=4.25

C4H12N2O L CAS 111-41-1 (648)
N-(2-Hydroxyethyl)diaminoethane, 1,4-Diaza-7-oxaheptane; H2N.CH2.CH2.NH.CH2.CH2.OH

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

Cu++ cal NaClO4 25°C 0.10M C 1975BAa (35521)2861
DH(K1)=-46.4 kJ mol⁻¹, DS=42.1 J K⁻¹ mol⁻¹, DH(K2)=-4.4, DS=133.3,
DH(CuL+2OH)=-51.6, DS=164.2

Cu++ vlt KNO3 25°C 0.50M U B2=18.0 1972HJa (35522)2862
K(CuL2+OH)=3.2

Cu++ gl KNO3 25°C 0.50M U 1972HJa (35523)2863
K(CuL2+0H)=3.3

Cu++ gl KNO3 25°C 0.10M U M K1=10.07 B2=17.58 1969Cmd (35524)2864
B(CuLA)=22.51
B(CuLB)=22.08
B(CuLC)=21.48
B(CuLD)=20.64

B(CuLE)=19.71. H4A=Tiron, H4B=chromotropic acid; H2C=pyrocatechol;

H2D=8-hydroxyquinoline-5-sulfonic acid, H2E=salicylic acid

Cu++ gl NaClO4 25°C var U 1966NTa (35525)2865
K1=10.02+1.018SQRTI/(1+0.904SQRTI)-1.018SQRTI/(1+2.36SQRTI)+0.282I
K2=7.43+1.018SQRTI/(1+9.04SQRTI)-1.018SQRTI/(1+3.00SQRTI)+0.234I plus others

Cu++ gl KNO3 25°C 0.10M U T H K1=9.90 1959GMa (35526)2866
K(Cu(OH)L+H)=7.30
K(2Cu(OH)L=Cu2(OH)2L2)=2.2
DH(CuOHL+H)=-25 kJ mol⁻¹, DS=59. K=7.69(0.3 C), 7.08(42.5 C)
DH(dimer)=17, DS=92. K=1.7(0.3 C), 2.2(42.5 C)

Cu++ gl KNO3 25°C 0.50M U K1=10.11 B2=17.62 1958HDa (35527)2867

Cu++ gl KNO3 25°C 0.10M U K1=10.0 1957Mca (35528)2868

C4H12N2O2 L (6680)
1,4-Diamino-butane-2,3-diol; H2N.CH2.CH(OH).CH(OH).CH2.NH2

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

Cu++ gl KNO3 25°C 0.10M C 1993KRa (35550)2869
B(Cu2H-2L2)=9.64
B(Cu2H-3L2)=-0.55

Data for 3R,2S isomer. For 2R,3R isomer K(Cu2H-2L2)=10.90, K(Cu2H-3L2)=0.12

C4H12N2S L CAS 871-76-1 (1854)
1,5-Diamino-3-thiapentane; H2N.CH2.CH2.S.CH2.CH2.NH2

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

Cu++ gl KNO3 25°C 0.50M U K1=9.020 B2=14.26 1979HGb (35554)2870
K(CuL+OH)=5.90

Cu++ cal KNO3 25°C 0.50M C H 1979HGd (35555)2871
DH(K1)=-51.4 kJ mol⁻¹, DS(K1)=0.2 J K⁻¹ mol⁻¹; DH(K2)=-33.7, DS(K2)=-12;
DH(CuL+OH)=-18.0, DS(CuL+OH)=52.

Cu++ gl KNO3 30°C 1.0M U T K1=9.07 B2=14.15 1951G0a (35556)2872
0 C: K1=9.99, K2=6.28; 50 C: K1=8.57, K2=4.57

C4H12N2S2 L CAS 51-85-4 (3593)
2,2'-Dithiobis(ethylamine); H2N.CH2.CH2.S.S.CH2.CH2.NH2

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

Cu++ gl NaClO4 20°C 0.15M U K1=6.70 1963HPa (35568)2873
K(Cu+HL)=3.79

C4H12O3NP H2L (6836)

1-Amino-1-methylpropyl-1-phosphonic acid; CH3.CH2.C(CH3)(NH2)P(O)3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.10M	U			K1=8.30 B2=14.77	1991NSa (35570)	2874

		C4H13NO3P+	HL		(1971)					
Trimethylammonium-methylphosphonic acid; +N(CH3)3.CH2.P(O)3H2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U			K1=2.18 K(Cu+L=Cu(OH)L+H)=-4.7	1979WNa (35589)	2875

		C4H13NO6P2	H4L		CAS 5995-26-6 (1336)					
N-Ethyliminobis(methylenephosphonic) acid; C2H5N(CH2P(O)3H2)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	C			K1=13.26 B(CuH-1L)=3.02 B(CuH-2L)=-9.47 B(CuHL)=17.60 B(CuH2L)=21.15	1998KKc (35595)	2876

Cu++	gl	KNO3	25°C	1.00M	M			K1=13.09 K(Cu+HL)=5.40 K(Cu+H2L)=3.60	1982BGb (35596)	2877

		C4H13NO7P2	H4L		CAS 63132-40-1 (1347)					
1-Hydroxy-4-aminobutyl-1,1-diphosphonic acid; (P(O)3H2)2C(OH).CH2.CH2.CH2.NH2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	C			K1=15.70 B(CuH3L)=32.70 B(CuH2L)=28.92 B(CuHL)=24.24 B(CuH-1L)=4.62	1996DJa (35615)	2878
B(CuH2L2)=40.49, B(Cu2L)=23.62.										

Cu++	gl	KCl	25°C	0.10M	M			K1=12.92 K(Cu+HL)=11.31 K(Cu+H2L)=7.73	1978KMa (35616)	2879

		C4H13N2O3P	H2L		(6485)					
N-Dimethyl-1,2-diaminoethanephosphonic acid; H2N.CH(P(O)3H2)CH2.N(CH3)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ternary complexes with 10 different amino acids, e.g. $B(\text{CuH}_2\text{LGly})=30.31$,
 $B(\text{CuHLGly})=27.57$, $B(\text{CuLGly})=20.53$, $B(\text{CuH-1LGly})=9.90$

Cu++ gl NaClO4 25°C 0.20M U M 1996UBa (35680)2889
 $B(\text{Cu}(\text{catecholate})\text{L})=26.14$
 $B(\text{Cu}(\text{oxalate})\text{L})=18.21$
 $B(\text{Cu}(\text{malonate})\text{L})=18.55$
 $B(\text{Cu}(\text{gly})\text{L})=20.65$
 $B(\text{Cu}(\text{beta-Ala})\text{L})=19.86$, $B(\text{Cu}(\text{en})\text{L})=21.74$, $B(\text{Cu}(1,3\text{-pn})\text{L})=21.57$,
 $B(\text{Cu}(2\text{-aminophenol})\text{L})=20.27$, $B(\text{Cu}(o\text{-phenylenediamine})\text{L})=15.80$.

Cu++ gl KNO3 25°C 0.10M M M K1=15.871 19920Ma (35681)2890
 $B(\text{CuHL})=18.26$
 $B(\text{CuH-1L})=6.697$
 $B(\text{Cu}_2\text{H-1L}_2)=24.07$
 $B(\text{CuLA})=20.810$

A=2-amino-4-oxopterin-6-carboxylate

Cu++ gl NaNO3 25°C 0.10M U M 1990CFa (35682)2891
 $K(\text{CuL}=\text{CuL}(\text{OH})+\text{H})=-9.168$
 $K(2\text{CuL}=\text{Cu}_2\text{L}_2(\text{OH})+\text{H})=-8.26$

Cu++ gl KNO3 25°C 0.20M M M 1989SHc (35683)2892
 $K(\text{CuL}+\text{gly})=3.64$
 $K(\text{CuL}+\text{gly-val})=3.45$
 $K(\text{CuL}+\text{ser})=4.07$
 $K(\text{CuL}+\text{gly-gly-gly})=3.18$

Also data for gly-leu, ala, val, thre, methionine and 2-aminobutyric acid.

Cu++ gl KNO3 25°C 0.20M M M 1988SKd (35684)2893
 $K(\text{Cu}(\text{dien})+\text{A})=2.35$
 $K(\text{Cu}(\text{dien})+\text{B})=2.88$
 $K(\text{Cu}(\text{dien})+\text{C})=2.51$
 $K(\text{Cu}(\text{dien})+\text{D})=3.53$

A: glycine ethyl ester; B: alanine ethyl ester; C: serine ethyl ester;
D: histidine methyl ester. $K(\text{Cu}(\text{dien})+\text{H}+\text{D})=9.20$

Cu++ gl diox/w 30°C 50% U T M K1=18.50 1987PCb (35685)2894
 $K(\text{CuA}+\text{L})=13.09$
 $K(\text{CuB}+\text{L})=12.91$
 $K(\text{Cu}(\text{bpy})+\text{L})=12.30$
 $K(\text{Cu}(\text{phen})+\text{L})=12.33$

$K(\text{Cu}(\text{dipyridylamine})+\text{L})=12.12$; $K(\text{Cu}(2\text{-(2'-pyridyl)imidazole})+\text{L})=10.76$
A=5-nitrophenanthroline, B=2-(2'-pyridyl)benzimidazole

Cu++ ISE KNO3 20°C 0.10M U M K1=16.1 B2=21.20 1984HKa (35686)2895

Cu++ gl KCl 25°C 0.50M C M K1=16.55 B2=21.15 1982GSd (35687)2896
 $K(\text{CuL}+\text{HL})=2.94$
 $*K(\text{CuL})=-9.49$

Ternary complex with L-alaninamide

Cu ⁺⁺	gl	KNO ₃	25°C	0.10M	C	M		1981WNb (35688)2897
							K(CuL+OH)=4.67	
Cu ⁺⁺	oth	KNO ₃	25°C	0.10M	U	H		1977FZa (35689)2898
							DH(K ₁)=-76.1 kJ mol ⁻¹ ; DS=50.1 J K ⁻¹ mol ⁻¹	
Cu ⁺⁺	sp	oth/un	25°C	0.10M	U		K ₁ =18.8	1977TSa (35690)2899
Cu ⁺⁺	oth	KNO ₃	25°C	0.20M	U			1975WTb (35691)2900
							K(CuL(OH)+H)=9.1	
method: volume change, I=0.15-0.2(KNO ₃)								
Cu ⁺⁺	vlt	alc/w	25°C	40%	U		B ₂ =21.46	1974MIa (35692)2901
Cu ⁺⁺	gl	KNO ₃	25°C	0.10M	U		K ₁ =16.7 B ₂ =21.50	1973AHc (35693)2902
Cu ⁺⁺	gl	KNO ₃	25°C	0.10M	U	M		1973YBa (35694)2903
							K(CuL+py)=1.77	
							K(CuL+A)=3.49	
							K(CuL+H)=3.24	
							K(CuL+OH)=4.75	
K(CuL+B)=1.72. A=n-butylamine, HB=p-phenol sulphonic acid								
Cu ⁺⁺	gl	KNO ₃	25°C	0.13M	U		K ₁ =15.91	1971AAa (35695)2904
							K(CuL+OH)=5.17	
Cu ⁺⁺	gl	KNO ₃	25°C	0.11M	U	M		1971AAa (35696)2905
							K(CuL+Gly)=4.42	
							K(CuL+Val)=3.79	
							K(CuL+Sar)=3.98	
							K(CuL+B-Ala)=3.65	
K(CuL+A)=2.52, A=glycine methyl ester								
Cu ⁺⁺	gl	NaClO ₄	25°C	0.10M	U	M	K ₁ =16.02 B ₂ =20.88	1971HBb (35697)2906
							K(Cu+L=CuLOH+H)=7.02	
							B(CuHL ₂)=29.08	
							B(CuLA)=18.92	
HA=triglycine								
Cu ⁺⁺	gl	KCl	25°C	0.50M	U		K ₂ =4.92	1971KZa (35698)2907
							K(Cu+HL=CuL+H)=5.88	
							K(CuL(OH)+H=CuL)=9.39	
							K(CuL+HL)=3.59	
Cu ⁺⁺	gl	R4N.X	25°C	1.00M	U	M	K ₁ =16.17	1969ESb (35699)2908
							B(CuL(NH ₃))=19.32	
Medium: NH ₄ NO ₃								

Cu++ cal KCl 25°C 0.10M U H 1961CPa (35700)2909
DG(K1)=-87.92 kJ mol⁻¹, DH=-75.3, DS=50; DG(K2)=-29.68, DH=-34.1, DS=-15

Cu++ oth KCl 20°C 0.10M U K1=7.60 B2=12.90 1960H0b (35701)2910

Cu++ gl oth/un 20°C 0.0 U T H 1959MBa (35702)2911
DG(K1)=-91.12 kJ mol⁻¹, DH=-79.1, DS=33; DG(K2)=-27.17, DH=-23, DS=4
Data also at 30, 40 C

Cu++ gl oth/un 20°C ->0 U T K1=15.85 1953Mca (35703)2912
K1=15.40(30 C), 14.98(40 C)

Cu++ gl oth/un 35°C 1.0M U H 1952JHa (35704)2913
DH(K1)=-83.6 kJ mol⁻¹

Cu++ gl KCl 30°C 1.0M U T K1=16.11 1952JHa (35705)2914
40 C: K1=15.6

Cu++ gl KCl 20°C 0.10M U K1=16.0 B2=21.3 1950PSa (35706)2915
K(Cu(OH)L+H)=9.03

Cu++ vlt KNO3 20°C 0.10M U B2=20.85 1949LAd (35707)2916

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

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

Cu++ gl KNO3 25°C 0.10M U K1=10.72 1971MMh (35824)2917

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

Cu++ gl KCl 25°C 0.10M C K1=15.6 1997MLa (35844)2918
B(Cu2L)=18.5
B(CuHL)=22.2
B(CuH2L)=26.4
B(CuH2L2)=38.6
B(CuH4L2)=49.6

Cu++ gl KNO3 25°C 0.10M U K1=14.25 1976TIa (35845)2919
K(Cu+H2L)=6.05

Cu++ gl KNO3 25°C 0.10M U M K1=14.25 1975ITa (35846)2920

Cu++ gl oth/un 25°C 0.10M U K1=18.0 1972AUa (35847)2921
K(Cu+HL)=11.8
K(Cu+H2L)=7.7

 Cu++ gl KNO3 25°C 0.10M U K1=17.52 1971MMh (35848)2922
 K(CuL+H)=4.72
 K(CuHL+H)=3.80

Cu++ gl KNO3 25°C 1.0M C K1=12.7 1969RMc (35849)2923

Cu++ gl KCl 25°C 0.10M U K1=18.58 1965DKb (35850)2924
 K(Cu+HL)=8.72

 C4H14N4 L (7798)
 1,2,3,4-Tetraaminobutane;

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

Cu++ gl KCl 25°C 0.10M C B2=20.5 2001ZKa (35898)2925
 B(CuHL)=19.4
 B(CuHL2)=29.0
 B(CuH2L2)=37.0
 B(Ni2L)=19.4

Data for (2R,3S) isomer. For the (2S,2S) isomer B2=19.9, B(CuHL)=19.5
 B(CuH2L)=24.0, B(NiHL2)=28.5, B(NiH2L2)=36.1, B(NiH3L2)=42, B(Cu6L6)=109.2

 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

Cu++ dis NaClO4 25°C 4.0M C 1986SIc (35906)2926
 K(Cu+2L=CuL2(org))=8.6

Method: distribution from 4.0 M NaClO4 into MIBK.

Cu++ dis NaClO4 25°C 1.0M C M K1=2.25 B2= 3.20 1977SMe (35907)2927
 K(CuL2(org)+A(org))=5.63
 K(CuL2(org)+2A(org))=9.36

Method: distribution from 1.0 M NaClO4 into CCl4/HL/tri-octylphosphine
 oxide (A). K(Cu+2HL(org)=CuL2(org)+2H)=-0.61.

Cu++ cal non-aq 25°C 100% U M 1976MDb (35908)2928
 K(CuL2+(CH3)3PO)=3.48

Medium: CCl4. DH=-48.5 kJ mol⁻¹. Also using: e.p.r.
 Data for many other N-, S- and P- adducts also, included

Cu++ cal non-aq 25°C 100% U I M 1972KKd (35909)2929
 K(CuL2+A)=3.22
 K(CuL2A+A)=0.97
 K(CuL2B+B)=2.76
 K(CuL2+C)=2.29

Medium: CCl4. A=dimethylacetamide, B=pyridine, C=ethyl acetate
 Medium: cyclohexane. K(CuL2+A)=3.70, A=triethylamine

Cu++ cal non-aq 25°C 100% U M 1972KKd (35910)2930
K(CuL2+bpy)=6.07

Medium: CHCl3

Cu++ dis NaClO4 25°C 0.10M U I K1=2.54 B2=3.84 1971SIa (35911)2931
K1(I=1)=2.24, K1(I=3)=2.68, B2(I=1)=3.20, B2(I=3)=4.16

Cu++ gl diox/w 30°C 75% U K1=4.3 1953UFe (35912)2932

Cu++ gl oth/un 20°C 0.10M U K1=2.70 1951UIa (35913)2933

C5H2O5 H2L Croconic acid CAS 488-86-8 (1643)
4,5-Dihydroxycyclopent-4-ene-1,2,3-trione;

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

Cu++ EMF non-aq 25°C 100% U 1992CSa (35935)2934

K(Cu(bpy)+L)=8.028

K(Cu(terp)+L)=6.976

K(Cu(terp)+H+L)=9.88

K(Cu(terp)+HL)=1.42

Medium: DMSO, 0.1 M Bu4NClO4. terp=terpyridine. K(CuA+L)=6.39, A=bis(2-pyr-
idylcarbonyl)amide anion.

C5H3N2O4Br H2L 5-Bromoorotic CAS 15018-62-9 (3629)

1,2,3,6-Tetrahydro-2,6-dioxo-5-bromo-4-pyrimidinecarboxylic acid;

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

Cu++ gl R4N.X 25°C 0.10M U K1=5.58 1964TTa (35956)2935

Medium: Me4NBr

C5H3N2O4I H2L 5-Iodoorotic CAS 17687-22-8 (3630)

1,2,3,6-Tetrahydro-2,6-dioxo-5-iodo-4-pyrimidinecarboxylic acid;

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

Cu++ gl R4N.X 25°C 0.10M U K1=6.59 1964TTa (35963)2936

Medium: Me4NBr

C5H3N4Cl L 6-Chloropurine CAS 87-42-3 (3032)

6-Chloropurine;

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

Cu++ gl KNO3 45°C 0.10M U K1=6.8 1971TKc (35982)2937

Cu++ gl diox/w 25°C 50% U K1=6.13 B2=11.79 1959CFb (35983)2938

C5H4NBr L CAS 1120-87-2 (8780)
4-Bromopyridine;

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

Cu++ gl NaNO3 25°C 0.50M C K1=2.03 2002KSb (35996)2939

C5H4NCl L CAS 626-60-8 (322)
3-Chloropyridine; C5H4N.Cl

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

Cu++ gl NaNO3 25°C 0.50M C K1=1.60 2002KSb (36008)2940

Cu++ sp non-aq ? 100% U 1995NAa (36009)2941
K(Cu2A4+2L=2CuA2L)=0.14
K(Cu2A4+4L=2CuA2L2)=27

Medium: ethanoic acid(HA)

Cu++ sp NaCl04 25°C 1.00M C M 1994PMb (36010)2942
K(CuA+L)=1.22

A=Tris(2-aminoethyl)amine (tren)

C5H4N2O4 H2L Orotic acid CAS 65-86-1 (624)
1,2,3,6-Tetrahydro-2,6-dioxo-4-pyrimidinecarboxylic acid;

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

Cu++ gl NaCl 37°C 0.15M C K1=8.67 B2=14.20 2002HTc (36088)2943
B(CuH-1L2)=5.49
B(Cu3H-2L2)=11.60

Cu++ gl NaNO3 25°C 0.10M U K1=8.39 1987MPa (36089)2944
K(Cu+L2)=12.3

L2=orotic acid dimer

Cu++ sp none 25°C 0.0 U I 1986LLa (36090)2945
K(Cu+HL)=4.85

Cu++ gl NaCl 20°C 0.15M U K1=9.36 1979DZe (36091)2946
K(Cu+HL)=4.16

Cu++ sp oth/un 25°C ? U 1979GRa (36092)2947
K(Cu+HL)=4.89

C5H4N2O4 H2L Isoorotic acid CAS 23945-44-0 (3616)
1,2,3,6-Tetrahydro-2,6-dioxo-5-pyrimidinecarboxylic acid;

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

Cu++ gl KCl 25°C 0.10M U 1961TDb (36123)2948
K(Cu+HL)=4.12

C5H4N4 HL Purine CAS 120-73-0 (2149)
Purine;

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

Cu++ gl NaClO4 25°C 0.05M U B2=11.50 1969RWa (36140)2949
K(Cu+HL)=1.9

Cu++ gl diox/w 25°C 50% U K1=6.90 B2=13.34 1959CFb (36141)2950

C5H4N4O HL Hypoxanthine CAS 68-94-0 (1174)
6-Hydroxypurine;

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

Cu++ gl NaNO3 37°C 0.15M U K1=6.00 1990CIa (36159)2951

Cu++ gl KNO3 25°C 0.10M U T H 1983KSa (36160)2952
K(Cu+HL)=3.52

Cu++ gl KNO3 25°C 0.10M M M K1=5.80 1981GDa (36161)2953
K(Cu(nta)+L)=3.30

Cu++ gl KNO3 25°C 0.10M U M K1=7.08 1980GCa (36162)2954
K(Cu(phen)+L)=7.00

Cu++ gl NaClO4 25°C 0.10M U TIH K1=6.22 B2=11.97 1979RPb (36163)2955
Medium: KClO4. Data for 35 and 45 C and for I=0.05 and 0.20 M at 45 C.
DH(K1)=-111 kJ mol⁻¹, DS(K1)=-252 J K⁻¹ mol⁻¹; DH(K2)=-191.5, DS(K2)=-532

Cu++ gl KNO3 45°C 0.10M U K1=7.35 1971TKc (36164)2956

Cu++ gl NaClO4 25°C 0.05M U K1=6.54 1969RWa (36165)2957

Cu++ sp NaClO4 25°C 0.05M U 1969RWa (36166)2958
K(Cu+HL)=1.85

Cu++ gl diox/w 25°C 50% U K1=7.55 1959CFb (36167)2959

Cu++ gl oth/un 20°C 0.01M U K1=6.2 1953ALa (36168)2960

C5H4N4O2 HL Xanthine CAS 69-89-6 (4305)
Xanthine;

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

Cu++ gl KNO3 25°C 0.10M M M 1981GDa (36199)2961

$$K(\text{Cu}(\text{nta})+\text{L})=3.27$$

Cu++ gl KNO3 25°C 0.10M U M 1980GCa (36200)2962
K(Cu(phen)+L)=5.01

Cu++ gl NaClO4 25°C 0.05M U K1=5.07 1969Rwa (36201)2963

C5H4N4S HL 6-Purinethiol CAS 6112-76-1 (115)
6-Mercaptopurine, 6-Thiohypoxanthine;

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

Cu++ oth oth/un RT dil C M 1998ZZa (36216)2964
K(Cu(phen)2+L)=4.35
K(Cu(bpy)2+L)=4.79

Method: fluorescence and spectroelectrochemical.

Medium: phosphate buffer, pH 7.0.

Cu++ gl KNO3 45°C 0.10M U K1=7.0 1971TKc (36217)2965

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

Cu++ gl KNO3 25°C 0.10M U T M K1=3.19 1988NSc (36236)2966
B(CuAL)=9.47

HA is pyridine-2-carboxylic acid. At 40 C, K1=3.08, B(CuAL)=9.37.

Cu++ cal NaNO3 25°C 1.00M U H 1979ARa (36237)2967
DH(CuL)=1.42 kJ mol⁻¹; DS=44.8.

Cu++ gl diox/w 25°C 50% U K1=2.91 1968EGb (36238)2968
Medium: 50% dioxan, 0.1 M NaClO4

Cu++ gl oth/un 25°C ->0 U K1=1.90 1960Lub (36239)2969

C5H4O3 HL Pyromeconic aci CAS 496-63-9 (3600)
3-Hydroxy-4H-pyran-4-one;

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

Cu++ gl NaClO4 25°C 0.10M U T H K1=5.676 B2=10.74 1977SMd (36269)2970
DH=-79.0 kJ mol⁻¹, DS=-60 J K⁻¹ mol⁻¹

C5H4O3 HL 2-Furoic acid CAS 88-14-2 (2492)
Furan-2-carboxylic acid; C4H3O.COOH

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

Cu++ cal NaNO3 25°C 1.0M C 1987ARb (36279)2971
DH(K1)=4.60 kJ mol⁻¹, DS(K1)=33.8 J K⁻¹ mol⁻¹.

Cu++ cal NaNO3 25°C 1.0M C 1982ARb (36280)2972
DH(K1)=4.60 kJ mol⁻¹, DS(K1)=33.8 J K⁻¹ mol⁻¹.

Cu++ gl NaNO3 25°C 0.10M U K1=2.39 1982MPc (36281)2973

Cu++ EMF NaClO4 25°C 1.00M U K1=1.38 1972LPb (36282)2974

Cu++ gl diox/w 25°C 50% U K1=2.79 1968EGb (36283)2975
Medium: 50% dioxan, 0.1 M NaClO4

Cu++ gl oth/un 25°C ->0 U K1=1.32 1960Lub (36284)2976

C5H5N L Pyridine CAS 110-86-1 (31)
Pyridine, Azine;

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

Cu++ gl NaNO3 25°C 0.50M C K1=2.60 2002KSb (36363)2977

Cu++ sp non-aq 25°C 100% C H K1=5.46 B2= 9.87 2000KKb (36364)2978
3.20
2.62

Medium: MeCN, 0.10 M Et4NClO4. DH(K1)=-44.4 kJ mol⁻¹, DS=-44 J K⁻¹ mol⁻¹;
DH(K2)=-38.7, DS=-45; DH(K3)=-39.7, DS=-72; DH(K4)=-30.1, DS=-51.

Cu++ sp non-aq 25°C 100% C K1=6.4 B2=11.90 1998ISa (36365)2979
B3=15.8
B4=18.5

Medium: acetonitrile.

Cu++ gl NaClO4 25°C 0.10M M I K1=2.50 B2=4.36 1997FAa (36366)2980
Also for 0.9 mol parts EtOH in H2O K1=4.68; B2=6.57; For 0.45 mol parts of
acetone in H2O K1=3.42; B2=5.17. See also Data for other org. solvent contents

Cu++ sp non-aq ? 100% U 1995NAa (36367)2981
K(Cu2A4+2L=2CuA2L)=0.68
K(Cu2A4+4L=2CuA2L2)=270

Medium: ethanoic acid(HA)

Cu++ sp NaClO4 25°C 1.00M C M 1994PMb (36368)2982
K(CuA+L)=2.09

A=Tris(2-aminoethyl)amine (tren)

Cu++ sp NaClO4 25°C 0.20M U 1991CCb (36369)2983
K(CuA+L=CuAL)=-0.128

A is rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane

Cu++ gl NaClO4 25°C 0.20M U M K1=2.56 B2= 4.45 1991UBa (36370)2984
K(Cu(ida)L)=12.15
K(CuAL)=9.24

H2A is pyridine-2,6-dicarboxylic acid.

Cu++ gl oth/un 25°C 1.00M C M K1=2.551 B2=4.474 1990NPa (36371)2985
B3=5.687
B4=6.592

Medium: 1.0 M H3SO3Na. Ternary complexes with azide

Cu++ vlt NaClO4 RT 0.50M C K1=2.00 B2= 3.70 1989CDd (36372)2986
B3=6.39

Method: polarography. Temperature not stated.

Cu++ gl KNO3 25°C 0.20M M M K1=2.80 1988SKd (36373)2987
K(Cu(dien)+L)=2.65

K(H+L)=5.24. For 4-benzylpyridine, K1=2.39, K(Cu(dien)+L)=2.11,
K(H+L)=4.97

Cu++ vlt R4N.X 25°C 0.10M U M 1987WRa (36374)2988
K(CuA+L)=3.0
K(CuAL+L)=0.37

A=2,3,9,10-tetramethyl-1,4,8,11-tetraazacyclotetradeca-1,3,8,10-tetraene
Medium=tetrabutylammonium hexafluorophosphate. Method=cyclic voltammetry

Cu++ sp non-aq 20°C 100% U 1986MBc (36375)2989
K(CuA+L)=-0.30

In CHCl3. CuA=cofacial binuclear bis(beta-diketone) copper(II) complex

Cu++ gl R4N.X 25°C 1.0M C M K1=2.450 B2= 4.35 1985CTb (36376)2990
K(CuAL2)=14.89
K(CuA+2L)=5.08
K(CuL2+A)=10.54

Medium: 1.0 M NH4NO3. H2A is salicylic acid.

Cu++ sp non-aq 21°C 100% U M 1983LKa (36377)2991
K(CuA+L)=-1.28

Medium: C2H4Cl2. A=tetraphenylporphin

Cu++ gl NaNO3 25°C 0.10M C K1=2.49 1981BKb (36378)2992

Cu++ gl oth/un 25°C ? U K1=2.5 B2=4.40 1980CDa (36379)2993
K3=1.3

Cu++ gl NaClO4 25°C 0.15M U T M K1=2.53 B2= 4.38 1978ABe (36380)2994
B3=5.66
B(CuH-1L)=-3.90

At 37 C, K1=2.5, B2=4.31, B3=5.5, B(CuH-1L)=-3.9.

Data for ternary complexes with ethanoic acid.

Cu++ cal non-aq 30°C 100% U H 1976AGb (36381)2995

$K(\text{CuA2+L})=0.04$
 $K(\text{CuB2+L})=-0.045$
 $K(\text{CuC2+L})=0.30$
 $K(\text{CuD2+L})=0.20$

In Benzene. A= N-methyl-2-hydroxybenzaldimine. B= N-butyl-; C= N-para-fluoro-phenyl-; D= N-para-methoxyphenyl-. Also N-phenyl-, and other benzaldimines.

Cu++ cal non-aq 25°C 100% U HM 1976MDb (36382)2996

$K(\text{Cu}(\text{hfac})_2+\text{L})=4.5$

Medium: CH₂Cl₂. Metal: Bis(hexafluoroacetylacetonato)copper(II), (Cu(hfac)₂).
DH=-44 kJ mol⁻¹.

Cu++ cal non-aq 30°C 100% U H 1974DGa (36383)2997

$K(\text{CuA2+2L})=1.50$

In benzene. HA=thiobenzoyl-1,1,1-trifluoroacetone; DH=-30 kJ mol⁻¹; DS=-70

Cu++ cal non-aq 30°C 100% U H 1974G0b (36384)2998

$K(\text{CuA2+L})=0.67$
 $K(\text{CuB2+L})=0.98$
 $K(\text{CuC2+L})=2.85$
 $K(\text{CuD2+L})=2.74$

In benzene. HA=pentane-2,4-dione; HB=1-phenylbutane-3,4-dione; HC=1,1,1-trifluoropentane-2,4-dione; HD=1,1,1-trifluoro-4-phenylbutane-2,4-dione. Also DH

Cu++ cal non-aq 30°C 100% U H 1974G0b (36385)2999

$K(\text{CuA2+L})=3.04$
 $K(\text{CuB2+L}) > 5$
 $K(\text{CuB2L+L})=2.89$

In benzene. HA=1,1,1-trifluoro-4-(2-thienyl)butane-2,4-dione; HB=1,1,1,5,5,5-hexafluoropentane-2,4-dione

Cu++ oth non-aq 7°C 100% U TI M 1974HTa (36386)3000

$K(\text{CuA2+L})=-0.22$

Medium: benzene. A=Diethyldithiocarbamate. At -3 C (toluene): K=-0.036;
17 C (CHCl₃): K=-0.52

Cu++ gl KNO₃ 25°C 0.10M U K1=2.58 1974ILa (36387)3001

Cu++ vlt NaNO₃ 20°C 1.00M U K1=2.43 B2=4.40 1973CPa (36388)3002
B3=5.95
B4=6.60

Cu++ oth NaNO₃ 20°C 1.0M C K1=1.88 B2= 4.52 1973RAC (36389)3003
B3=6.00
B4=6.46

Method: recalculation of literature data.

Cu++ sp non-aq ? 100% U I M 1971MAi (36390)3004

$K(\text{CuA2+L})=2.35$

$$K(\text{CuA}_2+2\text{L})=3.44$$

Medium: benzene. HA=dibenzoylmethane. In CHCl_3 , $K(\text{CuA}_2+\text{L})=3.15$,
 $K(\text{CuA}_2+\text{L}_2)=3.52$. In $\text{HCON}(\text{CH}_3)_2$, $K(\text{CuA}_2+\text{L})=1.92$, $K(\text{CuA}_2+2\text{L})=1.85$

Cu++ gl NaClO4 25°C 0.50M U I K1=2.56 B2=4.45 1970FRa (36391)3005
Medium: 0.5 LiClO4. In 54.3% MeOH, 0.5 M LiClO4: K1=2.46, K2=1.92.
0.5 LiClO4, 48.1% dioxan: K1=2.45, K2=1.83

Cu++ gl NaClO4 25°C 1.00M U K1=2.86 B2=4.78 1969MBb (36392)3006

Cu++ gl NaClO4 25°C 1.00M U M 1969MBb (36393)3007
B(CuLA)=4.26

H2A=malonic acid

Cu++ cal oth/un 25°C 0.0 U HM K1=2.50 B2=4.30 1968IEa (36394)3008
B3=5.16
B4=6.04

DH(K1)=-16.8 kJ mol⁻¹, DS=-8.4 J K⁻¹ mol⁻¹; DH(B2)=-37.2, DS=-42; DH(B3)=-67.3
DS=-130; DH(B4)=-92.0, DS=-171. Ternary complexes with EDTA

Cu++ gl KNO3 25°C 0.61M U K1=2.60 B2=4.54 1967SBd (36395)3009
B3=5.8
B4=6.7

Cu++ dis R4N.X 20°C 1.0M U M K1=2.4 B2=4.3 1966FLc (36396)3010
B3=5.68
B4=6.58
B(Cu(NH3)L)=6.6
B(Cu(NH3)L2)=8.1

Medium: NH4NO3. B(Cu(NH3)L3)=9.09; B(Cu(NH3)2L)=9.86, B(Cu(NH3)2L2)=10.83;
B(Cu(NH3)3L)=11.62. Other constants also given

Cu++ gl oth/un 25°C 0.50M U K1=2.408 B2=4.29 1964BJa (36397)3011
K3=1.137
K4=0.605

Medium: C5H5NHNO3

Cu++ gl NaClO4 25°C 0.10M U K1=2.54 1964KSb (36398)3012

Cu++ gl NaClO4 25°C 1.0M U H K1=2.46 B2=4.41 1963ABa (36399)3013
K3=1.27
K4=0.84

By calorimetry: DHi(average)=-12.5 kJ mol⁻¹, DS(K1)=4 J K⁻¹ mol⁻¹, DS(K2)=-4,
DS(K3)=-17, DS(K4)=-25

Cu++ gl NaClO4 20°C 0.15M U K1=2.65 B2=4.86 1962HPa (36400)3014
B3=6.90
B4=8.45

Cu++ sp oth/un ? ? U K1=2.36 B2=4.32 1961ANa (36401)3015

K1=2.39

K3=1.35

In MeOH: K1=2.92; in EtOH: K1=3.37; in acetone: K1=4.42

Cu++ dis non-aq 20°C 100% U I M 1959GRb (36402)3016

K(CuA2+L)=0.37

Medium: CHCl3. HA=acetylacetone. In cyclohexane K=1.72

Cu++ gl oth/un 25°C 1.0M U K1=2.59 B2=4.33 1957LHa (36403)3017

B3=5.93

B4=6.54

B5=7.00

B(Cu2L4(OH)2)=24.71

Cu++ gl oth/un 25°C 0.50M U T K1=2.41 B2=4.29 1950BJa (36404)3018

K3=1.14

K4=0.60

Medium: 0.5 M C5H5N.HNO3

Cu++ gl KNO3 25°C 0.50M U K1=2.52 B2=4.38 1948BVa (36405)3019

K3=1.31

K4=0.85

Cu++ oth oth/un ? ? U 1948MMa (36406)3020

B6=10.2

C5H5NO L 3-Pyridinol CAS 109-00-2 (1475)

3-Hydroxypyridine; C5H4N.OH

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

Cu++ gl KNO3 25°C 0.50M U K1=2.03 B2=3.63 1978LRa (36701)3021

B3=4.83

B4=5.62

B5=6.00

C5H5NO L CAS 695-59-7 (397)

Pyridine N-oxide ; C5H4N(O)

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

Cu++ sp diox/w 25°C 50% U K1=-0.69 1963SBa (36717)3022

Medium: 50% dioxan, 0.5 M NaClO4

C5H5NO2 HL CAS 13161-30-3 (5582)

1-Hydroxypyridin-2(1H)-one, 2-Hydroxypyridine 1-oxide;

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

Cu++ gl KCl 25°C 0.20M C K1=6.84 B2=12.46 1998FKa (36738)3023

$$K(\text{Cu}+\text{HL}=\text{CuL}+\text{H})=1.05$$

 Cu++ gl KCl 25°C 0.10M U K1=7.29 B2=13.06 1993LMc (36739)3024

Cu++ gl oth/un 20°C 0.01M U K1=7.0 B2=13.2 1956ARb (36740)3025

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

Cu++ sp alc/w 25°C 100% U IH K1=4.41 1985BCd (36765)3026
 Medium: EtOH. In DMSO, K1=2.50; in dimethylacetamide, K1=2.56

 Cu++ gl KNO3 37°C 0.15M C M K1=7.66 B2=13.77 1980SHb (36766)3027
 K(CuH-1L2+H)=9.5

 Cu++ gl diox/w 25°C 50% U K1=9.25 B2=16.70 1970GDa (36767)3028
 Medium: 50% dioxan, 0.1 M NaClO4

 Cu++ gl NaClO4 25°C 0.10M U K1=7.85 B2=14.66 1970GDa (36768)3029

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

Cu++ gl diox/w 20°C 60% U I K1=8.86 B2=16.90 1979GBd (36801)3030
 B(CuHL2)=25.85

 C5H5NO2 HL CAS 35940-93-3 (3618)
 3-Furancarboxaldehyde oxime (3-Furfuraldoxime); C4H3O.CH(:N.OH)

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

Cu++ gl diox/w 15°C 75% U I K1=10.39 B2=20.57 1963ASa (36807)3031
 Medium:75% dioxan, 0-0.1 M NaClO4. At 25 C,I=0:K1=10.28,K2=9.88; 35 C:
 9.90,K2=9.45. DH(K1)=-41.2 kJ mol⁻¹,DS=56.8 J K⁻¹ mol⁻¹; DH(K2)=-58.4,DS=-8

C5H5NO2 HL CAS 1121-23-9 (2315)
 3-Hydroxypyridin-4(1H)-one;

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

Cu++ gl KNO3 37°C 0.15M C K1=9.49 B2=17.13 1980SHb (36822)3032
 K(CuH-1L2+H)=10.4
 K(CuL+H)=1.7

 C5H5NO2 HL CAS 634-97-9 (2877)
 Pyrrole-2-carboxylic acid; C4H4N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	cal	NaNO3	25°C	1.00M	U	H			1981ARb (36830)	3033
DH(K1)=5.3 kJ mol ⁻¹ ; DS(K1)=52.0.										
Cu++	gl	none	25°C	0.00	U			K1=2.58 B2=3.90	1972LUc (36831)	3034
Cu++	gl	diox/w	25°C	50%	U			K1=3.37	1968EGb (36832)	3035
Medium: 50% dioxan, 0.1 M NaClO4										

C5H5N2Br L CAS 1072-97-5 (2630)										
5-Bromo-2-aminopyridine; C5H3N(Br)(NH2)										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	25°C	0.50M	C			K1=0.98	2002KSb (36849)	3036
Cu++	sp	alc/w	25°C	100%	U	I		K1=2.54 B2=5.13	1985BCc (36850)	3037
Medium: MeOH										
Cu++	sp	non-aq	25°C	100%	U	IH		K1=2.61 B2=5.28	1985BCc (36851)	3038
Medium: PrOH										

C5H5N3O4 H2L CAS 59048-06-5 (6096)										
N-Methylvioluric acid;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	25°C	0.50M	C			K1=4.40 B2= 7.48	1984HNb (36869)	3039
Cu++	gl	NaNO3	25°C	0.50M	C	M			1980VNa (36870)	3040
K(Cu+HL)=4.40										
K(CuHL+HL)=3.08										
K(Cu+HL+A)=7.97, A=dimethyl-1,3 violurate										
Cu++	gl	NaNO3	25°C	0.50M	C			K1=4.40 B2=7.48	1978VNa (36871)	3041

C5H5N5 L Adenine CAS 73-24-5 (237)										
6-Aminopurine; H2N.C5H3N4										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	25°C	0.10M	M	M			2002SKa (36910)	3042
K(CuA+L)=7.27										
A is picolylamine										
Cu++	gl	NaNO3	25°C	0.10M	C	M		K1=9.14	2000SSd (36911)	3043
K(Cu+HL)=3.01										
K(Cu+HL+OH)=13.40										

$K(\text{CuHL}+\text{OH})=10.40$

$K(\text{Cu}+\text{L}+\text{OH})=15.63$

Also data for ternary complexes.

Cu++ oth oth/un RT dil C M 1998ZZa (36912)3044

$K(\text{Cu}(\text{phen})_2+\text{L})=4.28$

$K(\text{Cu}(\text{bpy})_2+\text{L})=4.70$

Method: fluorescence and spectroelectrochemical.

Medium: phosphate buffer, pH 7.0.

Cu++ gl NaNO3 25°C 0.10M U K1=7.63 1996SGa (36913)3045

Cu++ gl NaClO4 25°C 0.10M M 1995LWa (36914)3046

$K(\text{Cu}+\text{HL})=2.68$

$K(\text{Cu}(\text{atp})+\text{HL})=2.88$

Cu++ gl NaNO3 37°C 0.10M U M K1=8.65 1994MGd (36915)3047

$B(\text{CuAL})=13.17$

* $K(\text{CuAL})=-7.05$

* $K(\text{Cu}(\text{OH})\text{AL})=-8.25$

HA is 6-aminopenicillanic acid.

Cu++ dis NaClO4 25°C 0.10M C M K1=6.73 B2=11.80 1989MMF (36916)3048

$K(\text{Cu}(\text{nta})+\text{L})=4.60$

$B(\text{Cu}(\text{nta})\text{L})=17.31$

Method: paper electrophoresis. Medium pH=8.5.

Cu++ gl KNO3 35°C 0.10M U M K1=2.84 1989SRe (36917)3049

$K(\text{Cu}+\text{L}+\text{HAsp})=13.73$

$K(\text{CuL}+\text{Gly})=8.09$

Cu++ gl NaNO3 37°C 0.15M U 1986TRa (36918)3050

$B(\text{CuHL})=11.7$

$B(\text{Cu}2\text{L}2)=17.9$

$B(\text{Cu}2\text{H}-1\text{L}2)=13.3$

$B(\text{Cu}2\text{H}-2\text{L}4)=10.4$

Different model for the Cu(II)-Adenine system based on spectrophotometry.

Cu++ gl KNO3 35°C 0.10M U T H 1983KSa (36919)3051

$K(\text{Cu}+\text{HL})=2.84$

$K(\text{Cu}+2\text{HL})=3.31$

Cu++ gl KNO3 30°C 0.10M U K1=7.4 1983SKa (36920)3052

Cu++ gl KNO3 25°C 0.10M M M K1=6.77 B2=12.57 1981GDa (36921)3053

$K(\text{Cu}(\text{nta})+\text{L})=3.77$

Cu++ gl KNO3 25°C 0.10M U M K1=6.77 B2=12.57 1980GCa (36922)3054

$K(\text{Cu}(\text{phen})+\text{L})=6.24$

Cu++	gl	NaCl	37°C	0.15M	C					1974Mwa (36923)3055
										K(Cu+HL)=2.68

Cu++	gl	KNO3	45°C	0.10M	U					1971TKc (36924)3056

Cu++	gl	NaClO4	25°C	0.05M	U					1969Rwa (36925)3057
										K(Cu+HL)=2.7

Cu++	kin	oth/un	25°C	0.01M	U					1968KYb (36926)3058

Cu++	gl	oth/un	20°C	0.10M	U					1960ASb (36927)3059

Cu++	gl	diox/w	25°C	50%	U					1959CFb (36928)3060

C5H5N5O		L								CAS 700-02-7 (3033)
Adenine N-Oxide;										

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

Cu++	gl	oth/un	25°C	?	U					1960PEb (36999)3061

C5H5N5S		H3L								CAS 3647-48-1 (4307)
2-Amino-6-mercaptapurine;										

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

Cu++	gl	KNO3	45°C	0.10M	U					1973TKa (37006)3062
										K(Cu+H2L)=3.4

C5H5N5S		H3L								CAS 154-42-7 (4308)
2-Mercapto-6-aminopurine;										

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

Cu++	gl	KNO3	45°C	0.10M	U					1973TKa (37014)3063
										K(Cu+H2L)=3.6

C5H5O2F3		HL								CAS 367-57-7 (163)
1,1,1-Trifluoropentane-2,4-dione; CF3.CO.CH2.CO.CH3										

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

Cu++	dis	NaClO4	25°C	4.0M	C					1986SIc (37030)3064
										K(Cu+2L=CuL2(org))=11.9
Method: distribution from 4.0 M NaClO4 into MIBK.										

Cu++	gl	NaClO4	25°C	0.50M	C					1983HOb (37031)3065
										K(Cu+HL=CuL+H)=-0.334

Cu++	dis	NaClO4	25°C	1.0M	C	M				K1=4.80 B2= 9.14 1977SMe (37032)3066

$$K(\text{CuL}_2(\text{org})+\text{A}(\text{org}))=2.96$$

Method: distribution from 1.0 M NaClO₄ into CCl₄/HL/tri-octylphosphine oxide (A). $K(\text{Cu}+2\text{HL}(\text{org})=\text{CuL}_2(\text{org})+2\text{H})=-1.26$.

 Cu++ cal non-aq 25°C 100% U M 1972KKd (37033)3067
 $K(\text{CuL}_2+\text{bpy})=2.65$

Medium: CHCl₃

 Cu++ dis NaClO₄ 25°C 0.10M U I K1=5.17 B2=9.38 1971SIa (37034)3068
 $K_1(\text{I}=1)=4.80$, $K_1(\text{I}=3)=5.56$, $B_2(\text{I}=1)=9.14$, $B_2(\text{I}=3)=10.04$

 Cu++ sp non-aq 25°C 100% U M 1969KLc (37035)3069
 $K(\text{CuL}_2+\text{A})=1.79$
 $K(\text{CuL}_2+\text{B})=0.79$
 $K(\text{CuL}_2+\text{C})=1.10$
 $K(\text{CuL}_2+\text{D})=1.01$

Medium: benzene. A=tri-n-butylamine, B=tri-n-hexylamine, C=tri-n-octylamine, D=tri-n-laurylamine. Data for other complexes also available

 Cu++ gl diox/w 30°C 75% U B2=17.2 1953UFe (37036)3070

 Cu++ gl diox/w 20°C 50% U K1=6.3 B2=12.2 1945Cwa (37037)3071

 C5H6N2 L CAS 1072-63-5 (8709)
 1-Vinylimidazole;

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

 Cu++ gl KNO₃ 25°C 0.50M U K1=3.60 B2= 6.70 1989LKc (37082)3072
 B3=9.30
 B4=11.35
 B5=11.90

 C5H6N2 L 2-Aminopyridine CAS 504-29-0 (1478)
 2-Aminoazine, 2-Pyridylamine; C5H4N.NH₂

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

 Cu++ gl NaNO₃ 25°C 0.50M C K1=1.80 2002KSb (37102)3073

 Cu++ sp non-aq 25°C 100% C 2001Lga (37103)3074
 $K(\text{Cu}_2\text{A}_4\text{L}_2+2\text{L}=2\text{CuA}_2\text{L}_2)=4.28$
 $K(\text{Cu}_2\text{B}_4\text{L}_2+2\text{L}=2\text{CuB}_2\text{L}_2)=4.18$
 $K(\text{Cu}_2\text{C}_4\text{L}_2+2\text{L}=2\text{CuC}_2\text{L}_2)=4.08$
 $K(\text{Cu}_2\text{D}_4\text{L}_2+2\text{L}=2\text{CuD}_2\text{L}_2)=3.85$

Medium: acetonitrile. HA is hexanoic acid, HB is heptanoic acid, HC is octanoic acid, HD is nonanoic acid. Also K values by calorimetry.

 Cu++ sp alc/w 25°C 100% U I K1=2.63 B2=5.67 1985BCc (37104)3075
 Medium: MeOH

Cu++ sp non-aq 25°C 100% U IH K1=2.60 B2=5.43 1985BCc (37105)3076
Medium: N,N-dimethylacetamide

Cu++ gl KNO3 25°C 0.10M U TIH K1=5.43 B2=9.61 1976BBc (37106)3077

Cu++ gl KNO3 25°C 0.61M U K1=1.71 B2=3.25 1967SBd (37107)3078

C5H6N2 L 3-Aminopyridine CAS 462-08-8 (1477)
3-Aminoazine, 3-Pyridylamine; C5H4N.NH2

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

Cu++ gl NaNO3 20°C 1.00M C K1=2.91 B2=5.16 1978CPa (37144)3079
B3=7.04

Cu++ gl KNO3 25°C 0.50M U K1=2.48 B2=4.47 1978LRa (37145)3080
B3=5.97
B4=7.01
B5=7.57

Cu++ gl NaNO3 20°C 1.00M U K1=2.91 B2=5.18 1973CPa (37146)3081
B3=7.06

Cu++ oth NaNO3 20°C 1.0M C K1=3.12 B2= 4.89 1973RAC (37147)3082
B3=7.05

Method: recalculation of literature data.

Cu++ gl KNO3 25°C 0.61M U K1=2.80 B2=4.84 1967SBd (37148)3083
B3=6.48
B4=7.5

C5H6N2O L CAS 16867-03-1 (2903)
2-Amino-3-hydroxypyridine; C5H3N(OH)(NH2)

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

Cu++ vlt KNO3 30°C 0.10M C M K1=6.50 B2=11.96 1991STb (37181)3084
Method: polarography. Medium pH 9.5.
Ternary complexes with oxalate and succinate.

Cu++ vlt KNO3 30°C 0.10M C K1=6.50 B2=11.96 1991STb (37182)3085
Method: polarography, medium pH 9.5.

Cu++ sp alc/w 25°C 100% U IH K1=6.13 B2=12.12 1985BCd (37183)3086
Medium: EtOH. In DMSO, B2=7.08; in dimethylacetamide, K1=12.18

Cu++ gl KNO3 20°C 0.10M U TIH K1=6.23 B2=10.61 1982KMe (37184)3087
Data for 0.05-0.20 M KNO3. At I=0, K1=6.85, K2=5.08.
Data for 30 and 40 C. DH(B2)=-59.7 kJ mol⁻¹, DS(B2)=-1.5 J K⁻¹ mol⁻¹.

C5H6N2O HL (3035)
2-Aminopyridine 1-oxide; C5H4N(-O)(NH2)

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

Cu++ gl NaClO4 25°C 0.10M U 1963SBb (37196)3088
K(CuL+H)=4.48

Cu++ gl NaClO4 25°C 0.10M U I K1=13.11 B2=24.79 1963SBd (37197)3089
At I=0.2 M K(Cu+HL)=0.85. I=0.5 M K(Cu+HL)=0.81

C5H6N2O5 L CAS 2361-27-5 (2642)
2-Thiophenecarboxylic acid hydrazide; C4H3S.CO.NH.NH2

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

Cu++ sp NaClO4 25°C 0.10M U K1=3.87 B2=7.40 1981BPc (37207)3090
K(Cu+H-1L)=10.66

C5H6N2O2 HL Thymine CAS 65-71-4 (413)
2,4-Dihydroxy-5-methylpyrimidine; C4HN2(CH3)(OH)2

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

Cu++ gl NaNO3 25°C 0.10M M M K1=5.77 2002SKa (37246)3091
K(CuA+L)=6.54

A is picolylamine

Cu++ gl NaNO3 37°C 0.10M U M K1=4.31 1994MGd (37247)3092
B(CuAL)=8.78
*K(CuAL)=-6.52
*K(Cu(OH)AL)=-8.84

HA is 6-aminopenicillanic acid.

Cu++ gl KNO3 35°C 0.10M U M K1=6.61 1989SRc (37248)3093
K(Cu(thiamine)+L)=6.21

Cu++ gl NaNO3 25°C 0.10M U T 1987MPa (37249)3094
B(Cu2L2)=14.59
B(Cu2L4)=25.69
K(Cu+L2)=8.8
K(Cu+L2+H)=16.08

L2=thymine dimer

Cu++ gl KNO3 25°C 0.10M U T HM K1=6.72 1983KSa (37250)3095
Ternary complexes with bpy, phen and 5-sulfosalicylic acid

Cu++ gl KNO3 35°C 0.10M U K1=6.61 B2=12.46 1982TSa (37251)3096

Cu++ gl KNO3 45°C 0.10M U K1=5.80 1974KKa (37252)3097

C5H6N2O2 HL CAS 3326-71-4 (2607)
2-Furanecarboxylic acid hydrazide; C4H3O.CONH.NH2

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

Cu++ gl diox/w RT 50% C I K1=3.338 B2= 5.80 1993BKe (37293)3098
Medium: 50% v/v dioxane/H2O. Data for 10-60% v/v dioxane/H2O and DMF/H2O.
Temperature not stated.

Cu++ gl KNO3 25°C 0.10M U M K1=4.35 B2=8.63 1990NAa (37294)3099
K(Cu(Oxine)+L)=4.56

Cu++ sp NaClO4 25°C 0.10M U K1=4.01 B2=7.60 1981BPc (37295)3100
K(Cu+H-1L)=9.57

C5H6N2O2 HL CAS 645-65-8 (3620)
4(or 5)-Imidazolylethanoic acid; C3H3N2.CH2.COOH

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

Cu++ gl NaClO4 25°C 0.10M C K1=6.86 B2=12.43 1998TSa (37311)3101
B(Cu2H-2L2)=1.90
B(Cu2H-4L2)=-20.11

Cu++ gl KCl 40°C 0.25M U T H K1=6.72 B2=12.12 1965AZa (37312)3102
K1=7.02(0 C),7.34(15 C),7.00(25 C); K2=5.71(0 C),5.81(15 C),5.69(25 C)
At 15 C: DH(K1)=-14.2 kJ mol-1; DH(K2)=-9.6

C5H6N2O2S HL CAS 15112-09-1 (8298)
N-Methyl-2-thiobarbituric acid;

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

Cu++ gl NaClO4 31°C 0.10M U T H K1=7.74 B2=13.66 1984SJa (37321)3103
Also data for 18 and 42 C. DH(K1)=-110 kJ mol-1, DS(K1)=-214 J K-1 mol-1
DH(K2)=-59.5, DS(K2)=-83.1.

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

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

Cu++ gl KNO3 45°C 0.10M U K1=9.0 1973TKa (37331)3104

Cu++ gl NaClO4 25°C 0.05M U B2=13.68 1969RWa (37332)3105

C5H6O4 H2L Citraconic acid CAS 498-23-7 (3021)
Citraconic acid; CH3.C(COOH):CH.COOH

Cu++ gl oth/un 25°C 0.10M U K1=2.8 1960YYa (37403)3117

C5H6O4S3 H2L (7055)
Trithiocarboglycolic acid; H00C.CH2.S.CS.S.CH2.C00H

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

Cu++ gl alc/w 25°C 20% U T H K1=7.41 B2=12.72 1994BSc (37463)3118

C5H6O5 H2L Ketoglutaric CAS 328-50-7 (1146)
2-Ketoglutaric acid; H00C.CH2.CH2.CO.C00H

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

Cu++ gl KCl 25°C 0.10M U K1=5.0 B2=7.90 1975SDa (37469)3119

C5H6O5 H2L CAS 642-93-3 (5476)
3-Methyl-2-oxobutanedioic acid H00C.CO.CH(CH3).C00H

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

Cu++ gl KCl 25°C 0.10M C K1=5.83 1982KMc (37477)3120
B(Cu2L2)=15.5
K(Cu+H-1L)=9.6
K(2Cu+2H-1L=Cu2H-2L2)=22.4

C5H6O7 H3L (8107)
Carboxymethyltartronic acid;

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

Cu++ gl KCl 25°C 0.10M C K1=5.20 1984MMg (37482)3121
K(CuL+H)=3.01

C5H7NOF6 L (5454)
1,1-Bis(trifluoromethyl)-3-aminopropan-1-ol; (CF3)2C(OH).CH2.CH2.NH2

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

Cu++ gl oth/un 25°C 0.10M U B2=10.09 1977Cwa (37497)3122

C5H7NO2 HL Glutarimide CAS 1121-89-7 (4312)
Piperidine-2,6-dione;

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

Cu++ gl alc/w 45°C 50% C K1=7.96 1996MMc (37502)3123
Medium: 50% v/v MeOH/H2O, 0.10 M KNO3.

Cu++ sp alc/w ? 100% U 1971MSc (37503)3124

B4=13.93

Medium: MeOH

C5H7N03 HL 5-Oxoproline CAS 149-87-1 (2110)

2-Pyrrolidone-5-carboxylic acid, Pyroglutamic acid;

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

Cu++ gl NaClO4 25°C 0.10M U K1=1.57 1991YNa (37516)3125
B(CuH-1L)=-4.43

C5H7N04S2 H3L CAS 36061-59-3 (1953)

Bis(carboxymethyl)dithiocarbamic acid; (HOOC.CH2)2.N.CSSH

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

Cu++ sp KNO3 20°C 0.10M U M B2=20.9 1974HGa (37545)3126
B(CuL(bpy))=20.0
B(CuL(phen))=20.9

Cu++ sp oth/un 20°C 0.10M U M B(CuLA)=22.23 1972GHb (37546)3127

H2A=8-hydroxy-quinolone-5-sulfonic acid

Cu++ EMF KNO3 22°C 1.00M U K1=10.87 B2=20.92 1970TPb (37547)3128

Cu++ sp oth/un ? ? U M K1=10.8 B2=20.9 1969KHc (37548)3129
B(CuL(NH3)2)=17.4

Cu++ dis KNO3 20°C 0.10M U B2=21.5 1967HMc (37549)3130

C5H7NS L CAS 541-58-2 (1421)

2,4-Dimethylthiazole; C3HNS(CH3)2

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

Cu++ gl KNO3 25°C 0.50M U K1=0.60 B2=1.13 1982GKa (37565)3131

C5H7N3O2 L (6254)

1-Carbamido-3-methyl-pyrazol-5-one; CH3.C3H2N2(:O).CO.NH2

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

Cu++ gl diox/w 25°C 50% U K1=7.60 B2=13.87 1979PDa (37593)3132

C5H8NO3PS H2L CAS 68662-99-7 (7988)

Amino-2-thienylmethylphosphonic acid;

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

Cu++ gl KNO3 25°C 0.10M C K1=8.11 B2=14.49 2001LCa (37603)3133
B(CuH-1L)=0.06

C5H8NO4P H2L CAS 68662-98-6 (7989)

Amino-2-furanylmethylphosphonic acid;

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

Cu++ gl KNO3 25°C 0.10M C K1=8.33 B2=14.45 2001LCa (37605)3134
B(CuH-1L2)=3.62
B(CuH-2L2)=-7.29

C5H8N2 L CAS 1759-84-0 (173)

1,2-Dimethylimidazole; C3H2N2(CH3)2

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

Cu++ gl KNO3 25°C 0.50M U K1=3.72 B2=6.92 1981LKa (37609)3135
B3=9.55
B4=10.78

Cu++ gl KNO3 25°C 0.50M U K1=3.70 B2=6.80 1980LBa (37610)3136
B3=9.18
B4=10.80
B5=11.72

C5H8N2 L CAS 7098-07-9 (2053)

1-Ethylimidazole; C3H3N2.C2H5

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

Cu++ gl KNO3 25°C 0.50M U K1=4.40 B2=7.99 1979LBa (37635)3137
B3=10.98
B4=13.22
B5=14.20

C5H8N2 L CAS 930-62-1 (3023)

2,4-Dimethylimidazole; C3H2N2(CH3)2

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

Cu++ gl NaNO3 25°C 0.15M U K1=3.8 1957NGa (37641)3138

C5H8N2 L CAS 1072-62-4 (929)

2-Ethylimidazole; C3H3N2.C2H5

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

Cu++ gl NaClO4 30°C 0.20M U K1=5.28 1999PGa (37649)3139

Cu++ gl NaNO3 30°C 0.20M U K1=5.32 1999PPa (37650)3140

Cu++ gl KNO3 25°C 0.10M C M 1989I0d (37651)3141

K(CuA+L)=3.84
K(CuAL+L)=4.06

HA=ethanoic acid. For 2-isopropylimidazole, K(CuA+L)=3.55,
K(CuAL+L)=3.90.

Cu++ gl KNO3 25°C 0.50M U K1=3.60 B2=6.65 1982LKb (37652)3142
B3=8.90
B4=10.30

C5H8N2 L Di-Me-Pyrazole CAS 67-51-6 (369)
3,5-Dimethyl-1,2-diazole; C3H2N2(CH3)2

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

Cu++ gl KNO3 25°C 0.50M U K1=1.91 B2=3.54 1978LNa (37669)3143
B3=4.90
B4=5.98

C5H8N2O L (1429)
5-Amino-3,4-dimethylisoxazole; C3NO(CH3)2(NH2)

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

Cu++ sp KNO3 25°C 0.50M U K1=1.33 B2=1.78 1983Gwa (37681)3144

C5H8N2O2 HL CAS 6635-29-6 (4315)
Cyclopentan-1,2-dione dioxime

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

Cu++ gl NaNO3 20°C 0.20M U K1=8.87 B2=20.15 1970Mva (37691)3145

C5H8N2O3 HL (6597)
2,3-Dehydro-N-glycyl-alanine; NH2.CH2.CO.NH.C(COOH):CH2

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

Cu++ gl KCl 25°C 0.20M C K1=5.63 1991JKa (37694)3146
B(CuH-1L)=3.23
B(CuH-1L2)=6.29
B(CuH-2L)=-6.04
B(Cu2H-3L2)=-0.82

C5H8N2O4 H2L (7335)
N-Pyruvoylglycine oxime; CH3.C(:NOH).CONH.CH2.COOH

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

Cu++ gl alc/w 30°C 40% M M K1=9.50 B2=17.62 1988ARb (37797)3153
Medium: 40% EtOH/H2O, 0.05 M KNO3

Cu++ dis NaClO4 25°C 4.0M C 1986SIc (37798)3154
K(Cu+2L=CuL2(org))=14.8
Method: distribution from 4.0 M NaClO4 into MIBK.

Cu++ dis NaClO4 25°C 0.10M C K1=8.3 1986SNa (37799)3155
Method: rate of distribution of volatile ligand between aqueous phase and inert gas phase. K(H+L)=9.17 assumed.

Cu++ oth NaClO4 25°C 0.10M C I R K1=8.0 B2=14.8 1982SLc (37800)3156
IUPAC evaluation. I=0 corr.: K1=8.25, B2=15.05. I=1 M: K1=8.1, B2=14.7
Kd(into benzene)=0.85(I=0.1), 1.07(I=1.0)

Cu++ gl diox/w 30°C 85% U I K1=10.06 B2=19.27 1981KCa (37801)3157
In 75% v/v dioxan: K1=9.98, B2=18.94; 50%: 9.10, B2=17.85; 40%: 8.78, 17.04;
30%: 8.59, B2=16.44

Cu++ gl mixed 30°C 85% U I K1=9.72 B2=18.86 1981KCa (37802)3158
In 75% v/v isopropanol: K1=9.45, B2=18.23; 50%: 8.97, B2=17.13 in 50%;
40%: 8.79, 16.68; 30%: 8.60, 16.31

Cu++ gl mixed 30°C 85% U I K1=10.24 B2=19.93 1981KCa (37803)3159
In 75% v/v acetone: K1=9.91, B2=18.87; 50%: 9.12, 17.28; 40%: 8.84, 16.64;
30%: 8.46, 15.97

Cu++ gl alc/w 30°C 85% U I K1=9.37 B2=18.22 1981KCa (37804)3160
In 75% v/v EtOH: K1=9.32, B2=17.89; 50%: 8.93, 16.90; 40%: 8.61, 16.90;
30%: 8.39, 16.01

Cu++ gl diox/w 24°C 50% U K1=9.5 1979ACa (37805)3161

Cu++ cal oth/un 25°C 0.05M U K1=7.91 B2=14.18 1979PKc (37806)3162
DH(K1)=-18.9 kJ/mol
DH(B2)=-44.4

Cu++ kin KNO3 25°C 0.10M C 1978MYa (37807)3163
K(Cu(bpy)+L)=8.77
Method: temperature jump.

Cu++ gl diox/w 30°C 75% U K1=10.16 B2=19.46 1977AHb (37808)3164

Cu++ gl NaClO4 25°C 1.00M C K1=8.42 B2=15.47 1977BMf (37809)3165

Cu++ sp diox/w 20°C 100% U M 1977EKa (37810)3166
K(CuL2+piperidine)=0.60
K(CuL2+isoBuNH2)=0.23
K(CuL2+pyridine)=0

Cu++ dis NaClO4 25°C 1.0M C M K1=7.81 B2=14.22 1977SMe (37811)3167
K(CuL2(org)+A(org))=1.28

Method: distribution from 1.0 M NaClO4 into CCl4/HL/tri-octylphosphine
oxide (A). K(Cu+2HL(org)=CuL2(org)+2H)=-3.73

Cu++ sp non-aq 20°C 100% U M 1976KTa (37812)3168
K(CuL2+isoquinoline)=1.82
K(CuL2+pyridine)=1.88
K(CuL2+3-picoline)=1.91
K(CuL2+4-picoline)=2.10

Medium: CH2Cl2

Cu++ sp non-aq 20°C 100% U M 1976KTa (37813)3169
K(CuL2+(2,4-lutidine))=0.91
K(CuL2+(3,5-lutidine))=2.06
K(CuL2+(2-cyanopyridine))=1.75
K(CuL2+(4-cyanopyridine))=1.60

Medium: CH2Cl2

Cu++ sp non-aq 20°C 100% U M 1976KTa (37814)3170
K(CuL2+(2-aminopyridine))=1.06
K(CuL2+(3-aminopyridine))=2.03
K(CuL2+(4-aminopyridine))=2.29

Medium: CH2Cl2

Cu++ gl diox/w 30°C 50% U M K1=9.50 B2=17.40 1975DBd (37815)3171
K(Cu(bpy)+L)=9.47
K(Cu(NTA)+L)=5.28
K(Cu(IDA)+L)=6.18

Cu++ sp non-aq 20°C 100% U M 1975KTa (37816)3172
K(CuL2+N,N-DiMeAcetamide)=0.89
K(CuL2+N,N-diEtAcetamide)=0.91
K(CuL2+N-n-PrAcetamide)=0.88
K(CuL2+N-iso-PrAcetamide)=0.95

Medium: CH2Cl2. K(CuL2+N,N-DiBu-acetamide)=0.86, K(CuL2+N-acetylmorpholine)=
0.95; K(CuL2+N-acetylpiperidine)=0.93;K(CuL2+N,N-dicyclohexylacetamide)=1.16

Cu++ sp non-aq 25°C 100% U M 1972GKb (37817)3173
K(CuL2+A)=0.55
K(CuL2+B)=0.96

Medium: benzene. A=quinoline, B=isoquinoline

Cu++ cal non-aq 25°C 100% U M 1972KKd (37818)3174
K(CuL2+bpy)=1.02

Medium: CHCl3

Cu++ sp non-aq 25°C 100% U H 1972YSa (37819)3175

Medium: pyridine. T=0-60C. ML2(low temp.species)=ML2(high temp. species)
DH=16.7 kJ mol⁻¹ DS=54 J K⁻¹ mol⁻¹

Cu++ sp non-aq 20°C 100% U M 1971GHa (37820)3176
 K(CuL2+A)=1.00
 K(CuL2+B)=0.39
 K(CuL2+py)=0.83
 Medium: benzene. A=4-methyl-pyridine, B=2-methyl-pyridine

Cu++ dis oth/un 20°C 0.10M U I K1=8.41 B2=14.82 1971K0a (37821)3177
 Medium: HL. K1(I=1.0)=8.29, B2(I=1.0)=14.56

Cu++ gl KNO3 25°C 0.02M U TI K1=8.29 B2=14.99 1971RMc (37822)3178
 K1(15 C)=8.50, K1(40 C)=8.07, K2(15 C)=6.95, K2(40 C)=6.48.
 0.02 N(CH3)4Cl, 75%dioxan, 15-40 C: K1(25 C)=12.06, K2(25 C)=10.43

Cu++ dis NaClO4 25°C 0.10M U I K1=7.74 B2=14.28 1971SIa (37823)3179
 K1(I=1)=7.81, K1(I=3)=8.41, B2(I=1)=14.22, B2(I=3)=15.42

Cu++ gl mixed ? 60% U I K1=9.60 B2=17.90 1969FDc (37824)3180
 Medium: 0-100% acetone
 K1(0%)=7.80, K1(100%)=14.4, B2(0%)=14.51, B2(100%)=29.0

Cu++ EMF oth/un 25°C ? U K1=9.80 B2=18.40 1968BDb (37825)3181

Cu++ gl NaClO4 25°C 0.10M U H K1=8.16 B2=14.76 1968GFa (37826)3182
 By calorimetry:DH(K1)=-20.1 kJ mol⁻¹,DS=87.8 J K⁻¹ mol⁻¹;DH(B2)=-42.2,DS=142

Cu++ sp mixed ? 20% U I M 1967FDb (37827)3183
 K(CuL2+Cu(en)2=2CuL(en))=1.03
 Medium: 20% acetone. K=0.82(30%), 0.93(40%), 0.74(50%), 0.44(70%), 0.27(90%)

Cu++ sp mixed ? 100% U I M 1967FDb (37828)3184
 K(CuL2+CuA2)=1.70
 Medium:100% acetone.HA=oxine; K=2.12(20%),1.99(40%),1.90(60%),1.82(80%)
 In CCl4: K=2.02; in 3-Mebutanol:1.97; in benzene:1.15; in CHCl3:0.94

Cu++ gl alc/w 25°C 50% U H K1=3.59 ? B2=6.14 1967MKa (37829)3185
 Medium:50% MeOH. By calorimetry: DH(K1)=-3.8(?) kJ mol⁻¹,DS=54 J K⁻¹ mol⁻¹,
 DH(K2)=-7.9(?),DS=20.9(?)

Cu++ dis oth/un 20°C 0.18M U K1=8.70 B2=15.24 1965IAa (37830)3186
 Medium: Na ethanoate

Cu++ gl diox/w 30°C 75% U K1=12.78 B2=24.02 1959MFa (37831)3187

Cu++ gl diox/w 25°C 50% U K1=9.40 B2=17.43 1958JPa (37832)3188

Cu++ gl diox/w 30°C 50% U K1=9.55 B2=17.68 1954BRc (37833)3189

Cu++ gl oth/un 20°C 0.0 U T H K1=8.31 B2=15.16 1954IHa (37834)3190
 DH(K1)=-20 kJ mol⁻¹, DS=92; DH(K2)=-28, DS=38. 0 C: K1=8.38, K2=7.06;

30 C: K1=8.22, K2=6.73; 40 C: K1=7.96, K2=6.4

Cu++ gl diox/w 30°C 75% U K1=11.85 B2=22.59 1953UFb (37835)3191
Alternative values: K1=12.46, K2=10.74

C5H8O2S HL CAS 19418-11-2 (408)
Tetrahydrothiophene-2-carboxylic acid; C4H7S.CO0H

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

Cu++ gl diox/w 25°C 50% U K1=4.31 1968EGb (38156)3192
Medium: 50% dioxan, 0.1 M NaClO4

C5H8O3 HL Laevulinic acid CAS 123-76-2 (941)
4-Ketopentanoic acid; CH3.CO.CH2.CH2.CO0H

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

Cu++ gl KCl 25°C 0.10M U K1=1.70 B2=2.55 1983LTa (38163)3193

Cu++ vlt NaClO4 30°C 1.50M C K1=1.60 B2= 3.21 1979PZa (38164)3194
Method: polarography. Medium pH 6.6.

Cu++ vlt NaClO4 30°C 1.00M U K1=1.60 B2=3.08 1970GPc (38165)3195

C5H8O3 HL CAS 16874-33-2 (2493)
Tetrahydrofuran-2-carboxylic acid; C4H7O.CO0H

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

Cu++ gl diox/w 25°C 50% U K1=3.47 1982MPc (38175)3196

Cu++ gl diox/w 25°C 50% U M K1=3.72 1968EGb (38176)3197
Medium: 50% dioxan, 0.1 M NaClO4

Cu++ gl diox/w 25°C 50% U M K(Cu(bpy)2+L)=3.52 1968GPd (38177)3198

Medium: 50% dioxan, 0.1 M NaClO4

C5H8O4 H2L CAS 595-46-0 (1144)
Dimethylmalonic acid; HOOC.C(CH3)2.CO0H

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

Cu++ gl NaClO4 30°C 0.10M M I K1=4.82 B2= 8.30 1985ARc (38192)3199
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=6.59, K2=5.60.

Cu++ gl NaClO4 30°C 0.10M U K1=4.82 B2= 8.66 1983SHd (38193)3200

Cu++ vlt NaClO4 30°C 2.00M U K1=5.6 B2=6.7 1975MJa (38194)3201

B3=7.2

Cu++ gl NaClO4 25°C 0.10M U K1=4.57 B2=7.09 19680Va (38195)3202
K(Cu+HL)=0.70

Cu++ gl NaClO4 25°C 0.10M U K1=4.57 B2=7.09 19680Va (38196)3203

Cu++ con oth/un 25°C .001M U K1=4.84 1931IRb (38197)3204

Cu++ ISE oth/un ? 0.10M U B2=6.4 1930RIa (38198)3205

C5H8O4 H2L CAS 601-75-2 (479)
Ethylpropanedioic acid; HOOC.CH(C2H5).COOH

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

Cu++ gl NaClO4 30°C 0.10M C K1=4.95 B2= 7.77 1985SHb (38223)3206

Cu++ gl NaClO4 25°C 0.10M U K1=4.95 B2=7.77 19680Va (38224)3207
K(Cu+HL)=1.74

Cu++ con oth/un 25°C .001M U K1=5.15 1931IRa (38225)3208

Cu++ ISE oth/un ? 0.10M U B2=8 1930RIa (38226)3209

C5H8O4 H2L CAS 498-21-5 (2234)
Methylsuccinic acid; HOOC.CH2.CH(CH3).COOH

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

Cu++ gl NaClO4 25°C 0.50M C K1=2.52 1986LEe (38255)3210
B(CuHL)=6.63

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

Cu++ ISE NaClO4 25°C 0.10M C K1=2.37 1989C0b (38290)3211

Cu++ gl oth/un 25°C 0.10M U K1=2.4 1960YYa (38291)3212

Cu++ gl KCl 25°C 1.0M U I K1=2.40 1955GLd (38292)3213
In 2 M NaClO4 K1=2.84

Cu++ gl oth/un 25°C ->0 U K1=3.16 1951PJb (38293)3214

C5H8O4S H2L CAS 36303-63-6 (988)
3-Thiahexane-1,6-dioic acid; HOOC.CH2.S.CH2.CH2.COOH

Cu++ gl alc/w 25°C 75% U K1=7.3 B2=11.80 1986BTa (38468)3223
Medium: 75% MeOH/H2O, 0.1 M NaClO4

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

Cu++ gl NaNO3 25°C 0.10M C M K1=8.78 B2=15.83 2004SSa (38532)3224
B(CuH-1L)=1.32
B(CuH-2L)=-10.35
B(CuLA)=14.75
B(CuHLA)=19.20
B(CuH-1LA)=7.49. HA is 6-aminopenicillanic acid.

Cu++ gl NaNO3 25°C 0.10M M M K1=8.82 B2=16.15 2002SKa (38533)3225
B(CuAL)=18.04
A is picolylamine

Cu++ gl KCl 25°C 0.10M C M K1=8.84 B2=16.36 2001DFd (38534)3226
B(CuLA)=18.80
B(CuH-1LA)=9.12
HA=1-Amino-N-hydroxy-1H-indole-3-propanamide.
Data also for D-Proline.

Cu++ gl KNO3 25°C 0.10M C K1=8.60 1999BIa (38535)3227

Cu++ gl KNO3 25°C 0.10M U M K1=8.80 B2=16.30 1998SYa (38536)3228
B(CuAL)=12.42
B(CuH-1AL)=6.31
HA is 2,3,4-trihydroxybutanoic acid (threonic acid).

Cu++ gl KNO3 25°C 0.10M U M 1997LZa (38537)3229
B(CuLA)=23.10
B(CuHLA)=28.33

HA=6-(2'-Hydroxybenzyl)-1,4,8,11-tetraazacyclotetradecane-5,7-dione. Data
for 3'-methoxy-, 3',5'-dibromo- and 5'-bromo-2'-hydroxybenzyl- derivatives

Cu++ gl alc/w 30°C 40% C M K1=8.90 1997RRd (38538)3230
K(CuA+L)=7.93

Medium: 40% v/v EtOH/H2O, 0.10 M KNO3.
HA is 2-(phenylhydrazono)butanoic acid

Cu++ gl NaNO3 25°C 0.10M M M K1=8.74 B2=16.08 1997SKc (38539)3231
B(CuAL)=13.91
B(CuH-1AL)=6.04

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.10M M M K1=9.66 B2=16.55 1995SHc (38540)3232

Cu++ gl KNO3 30°C 0.10M C T HM K1=8.87 B2=16.45 1983RKa (38553)3245
B(CuAL)=7.87

HA is thiazolidine-4-carboxylic acid. DH(K1)=-22.0 kJ mol⁻¹, DS(K1)=97
J K-1 mol⁻¹; DH(K2)=-31.2, DS(K2)=42; DH(CuAL)=-24.8, DS(CuAL)=69.

Cu++ sp NaCl 20°C 0.15M U M 1983VDa (38554)3246
K(CuA+L)=6.98

H2A=orotic acid (C5H4N2O4), 2,4-(1H,3H)-pyrimidinedione-6-carboxylic acid

Cu++ gl KNO3 25°C 0.10M M M K1=9.00 B2=16.69 1982Lba (38555)3247
Data for ternary complexes with polymer-grafted L-proline ligands.

Cu++ gl NaNO3 25°C .005M U K1=8.99 B2=16.29 1980JMa (38556)3248
B(CuH-1L)=1.60

Cu++ gl NaNO3 25°C 0.50M U K1=8.99 B2=16.29 1980MJa (38557)3249
B(CuH-1L)=1.60

Cu++ gl KNO3 25°C 0.10M U M K1=8.82 B2=16.32 1977BPa (38558)3250
B(CuL(His))=18.11

Cu++ gl KNO3 25°C 0.10M M K1=8.86 B2=16.45 1975FSc (38559)3251

Cu++ oth NaNO3 25°C 0.50M U M K1=8.76 B2=16.31 1973KPb (38560)3252
B(CuLA)=14.20

Method: polarimetry. H3A=citric acid

Cu++ cal KNO3 25°C 0.10M C H 1971BPi (38561)3253
DH(B1)=-59.5 kJ mol⁻¹, for rac-His: DH=-59.8

Cu++ gl KCl 20°C 0.10M U K1=8.83 1970GVa (38562)3254

Cu++ EMF oth/un ? ? U K1=7.81 B2=14.51 1970KKa (38563)3255

Cu++ gl KNO3 37°C 0.15M U K1=8.69 B2=16.03 1969CPc (38564)3256
K(Cu+HL)=0.98
K(CuL+HL)=1.10

Cu++ oth NaClO4 ? 0.50M U M K1=8.72 B2=16.35 1968PPa (38565)3257
B(CuL(Val))=16.86
B(CuL(D-Val))=17.00

Method: polarimetry

Cu++ gl KCl 20°C 0.10M U K1=8.92 B2=16.58 1966GIb (38566)3258

Cu++ vlt oth/un 25°C 0.06M U B2=16.63 1954Lda (38567)3259
Medium:0.06 KH2PO4

Cu++ gl oth/un 20°C 0.03M U B2=16.8 1950ALa (38568)3260

C5H9NO2S HL CAS 60175-95-3 (3632)
L-1,4-Thiazine-3-carboxylic acid;

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

Cu++ gl KNO3 20°C 0.10M U K1=6.66 B2=12.54 1968HLA (38660)3261

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

Cu++ gl NaNO3 25°C 0.10M C M K1=7.64 B2=13.47 2004SSa (38687)3262
B(CuH-1L)=0.04
B(CuH-2L)=-10.11
B(CuLA)=13.40
B(CuHLA)=18.01

B(CuH-1LA)=5.71. HA is 6-aminopenicillanic acid.

Cu++ gl NaNO3 25°C 0.10M M M K1=8.03 B2=14.56 2002SKa (38688)3263
B(CuAL)=17.54

A is picolylamine

Cu++ gl alc/w 30°C 40% C M K1=8.49 1997RRd (38689)3264
K(CuA+L)=7.45

Medium: 40% v/v EtOH/H2O, 0.10 M KNO3.
HA is 2-(phenylhydrazono)butanoic acid

Cu++ gl NaNO3 25°C 0.10M M M K1=8.35 B2=15.88 1997SKc (38690)3265
B(CuAL)=15.55
B(CuH-1AL)=7.75

HA is glycyl-DL-leucine.

Cu++ gl alc/w 30°C 40% M K1=8.68 B2=15.68 1993RRd (38691)3266
Medium: 40% v/v EtOH/H2O, 0.10 M KNO3.

Cu++ gl alc/w 30°C 50% U T M K1=9.11 1987RSb (38692)3267
K(CuL+A)=9.89
K(CuL+C)=8.62

Medium: 50% EtOH/H2O, 0.1 M KNO3. HA=N-methylanthranilic acid, HC=N-phenyl-
anthranilic acid

Cu++ gl KNO3 30°C 0.10M U HM K1=8.50 1986DRa (38693)3268
K(CuA+L)=7.74

HA=picolinic acid N-oxide. DH(K1)=-18.4 kJ mol⁻¹, DS=105.7 J K⁻¹ mol⁻¹
DH(CuA+L)=-30.6, DS=52.3

Cu++ gl KNO3 30°C 0.10M U H K1=8.50 1986DRb (38694)3269
Data for 30-50 C. DH(K1)=-19.6 kJ mol⁻¹, D(K1)=-52.4 J K⁻¹ mol⁻¹.

Cu++ gl KNO3 30°C 0.10M C T HM K1=8.46 B2=15.63 1983RKa (38695)3270
B(CuAL)=7.48

HA is thiazolidine-4-carboxylic acid. DH(K1)=-27.7 kJ mol⁻¹, DS(K1)=70
J K-1 mol⁻¹; DH(K2)=-34.4, DS(K2)=24; DH(CuAL)=-23.3, DS(CuAL)=66.

Cu++ EMF oth/un ? ? U K1=6.60 B2=12.00 1970KKa (38696)3271

Cu++ gl oth/un 25°C 0.15M U K1=8.33 B2=15.29 1958LDa (38697)3272

Cu++ vlt oth/un 25°C 0.15M U B2=15.4 1958LDa (38698)3273

C5H9NO3S H2L Thiopronin CAS 1953-02-2 (2162)

N-2-Mercaptopropanoyl-glycine; CH3.CH(SH).CO.NH.CH2.COOH

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

Cu++ gl KNO3 20°C 0.10M U K1=7.6 1977SHa (38771)3274
K(CuH-1L+H)=6.2

Cu++ EMF KNO3 20°C 1.0M U K1=7.6 1976SHb (38772)3275
B(CuH-1L)=1.4

C5H9NO3S H2L CAS 6513-26-4 (2163)

N-3-Mercaptopropanoyl-glycine; HS.CH2.CH2.CO.NH.CH2.COOH

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

Cu++ gl KNO3 20°C 0.10M U K1=6.9 1977SHa (38790)3276
K(CuH-1L+H)=7.0

Cu++ gl KNO3 20°C 0.10M U K1=6.9 1976SHb (38791)3277
B(CuH-1L)=-0.1

C5H9NO3S2 H3L (2159)

2,3-Dimercaptopropanoyl-glycine; HS.CH2.CH(SH).CO.NH.CH2.COOH

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

Cu++ gl KNO3 20°C 0.10M U K1=7.0 1977SHa (38821)3278
K(CuH-1L+H)=5.3

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

Cu++ gl KNO3 25°C 0.10M M K1=8.60 B2=15.19 2003DFa (38902)3279
B(CuHL)=13.27

Cu++ vlt oth/un RT 0.10M C 2003DZa (38903)3280

K(Cu(Et-imidazole)+L)=4.30

40 C: K1=8.30, 50 C: K1=8.10. DH(K1)=-43.9 kJ mol⁻¹, DS=18.4 J K⁻¹ mol⁻¹

Cu++ gl NaClO4 37°C 0.15M U K1=8.52 B2=15.61 1990NTb (38915)3292

Cu++ gl NaClO4 25°C 1.00M C K1=8.20 B2=14.93 1989BFb (38916)3293
B(CuHL)=12.40
B(CuH2L)=14.65
B(CuHL2)=19.60
B(CuH2L2)=23.90

Cu++ gl KNO3 35°C 0.20M C M K1=7.66 B2=13.88 1987PRa (38917)3294

Cu++ ISE KNO3 25°C 0.10M U M K1=7.87 1986DVa (38918)3295
K(CuL+salicylate)=9.58

Cu++ gl NaCl 37°C 0.15M U K1=8.165 B2=14.599 1985CFb (38919)3296
B(CuHL)=12.297
B(CuHL2)=19.27

Cu++ gl NaClO4 25°C 0.10M U M 1985NSd (38920)3297
K(CuL+uracil)=5.39
K(CuL+thymine)=6.07

Cu++ gl KNO3 25°C 0.10M C M 1985Y0a (38921)3298
B(Cu(bpy)L)=16.455
B(CuH(bpy)L)=20.812

Cu++ gl NaClO4 37°C 0.15M C M K1=8.115 B2=14.504 1984BPd (38922)3299
B(CuHL)=12.183
B(CuHL2)=18.682
B(CuH-1L)=1.079
B(CuL(His))=16.830

Cu++ gl KNO3 25°C 0.10M C M K1=8.30 B2=15.03 1984DAb (38923)3300
B(CuHL)=12.52
B(CuHL2)=19.6
B(Cu2L)=10.41
B(Cu2L2)=18.6

B(CuLA)=17.40; B(CuHLA)=22.9. H2A=Noradrenaline

Cu++ gl KNO3 25°C 0.10M M K1=6.22 B2=11.32 1981GVa (38924)3301

Cu++ gl NaClO4 30°C 0.10M C M K1=7.85 B2=14.15 1980ASb (38925)3302
ternary complex with glycyl-sarcosine

Cu++ gl KNO3 25°C 0.10M C K1=8.62 B2=15.22 1980CKb (38926)3303
B(CuHL)=12.62

Cu++ gl KNO3 30°C 1.00M U M K1=8.20 B2=15.10 1980SGd (38927)3304

B(CuL(malonate))=12.15

B(CuL(oxalate))=12.80

Cu++ vlt KNO3 30°C 1.00M U M K1=8.2 B2=15.1 1980SSe (38928)3305
B(CuL(oxalate))=12.8

Cu++ sp NaNO3 25°C 1.00M U 1979BSa (38929)3306
K(Cu+HL)=3.75

Cu++ gl KNO3 25°C 0.10M U K1=8.30 B2=14.80 1978SYa (38930)3307
B(CuHL)=12.50

Cu++ gl KNO3 25°C 0.10M U K1=8.545 B2=15.22 1977BPa (38931)3308
B(CuHL)=12.73
B(CuH2L2)=25.18
B(CuHL2)=20.57

Cu++ gl KNO3 25°C 0.10M U M 1977BPa (38932)3309
B(CuL(His))=17.86
B(CuHL(His))=22.70
B(CuH2L(His))=26.68

Cu++ gl NaCl 25°C 0.12M U K1=8.37 B2=14.53 1977BSb (38933)3310

Cu++ gl KCl 25°C 0.20M C M 1977NGa (38934)3311
B(CuH-1LA)=5.07
B(CuH-1LB)=5.14
B(CuH-1LC)=4.67
K(CuH-1L2+A=CuH-1LA+L)=0.61

K(CuH-1L2+B=CuH-1LB+L)=0.51, K(CuH-1L2+C=CuH-1LC+L)=0.54

HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++ gl KNO3 25°C 0.10M U K1=8.20 B2=14.29 1976GPd (38935)3312

Cu++ gl KCl 25°C 0.20M C 1976NGd (38936)3313
K(CuH-1A2+L=CuH-1AL+A)=5.07
K(CuH-1C2+L=CuH-1CL+C)=5.14
K(CuH-1D2+L=CuH-1DL+D)=4.67

HA is glycylglycine; HB is glycyl-DL-alpha-alanine;

HC is DL-alanyl-DL-alanine.

Cu++ gl KNO3 25°C 0.10M U K1=8.39 B2=14.93 1975RIb (38937)3314
K(CuL+H)=4.10
B(CuHL)=12.49

Cu++ gl KCl 25°C 0.20M U HM K1=8.27 B2=14.74 1974NGa (38938)3315
K(CuL+H)=4.12
B(CuL(Gly))=15.10
B(CuL(Asp))=15.63

DH(K1)=-20.9 kJ mol⁻¹, DH(K2)=-28, DH(CuL+H)=-6.7, DS(K1)=21 J K⁻¹ mol⁻¹,

DS(K2)=7, DS(CuL+H)=13.

Cu++ gl KCl 25°C 0.20M C HM K1=8.27 B2=14.74 1973NGa (38939)3316
K(CuL+H)=4.12
B(Cu(gly)L)=15.10

By calorimetry: DH(K1)=-21 kJ mol⁻¹, DS(K1)=88 J K⁻¹ mol⁻¹; DH(K2)=-28,
DS(K2)=29; DH(CuL+H)=-6.7, DS(CuL+H)=54.

Cu++ cal KNO3 25°C 0.10M C H 1971BPi (38940)3317
DH(B1)=-47.3 kJ mol⁻¹, For D-His: DH=-47.7, for rac-His: DH=-47.9

Cu++ gl NaClO4 25°C 0.10M U K1=7.87 B2=14.16 1965Nca (38941)3318

Cu++ oth KNO3 20°C 0.10M U K1=10.1 B2=16.40 1964JOa (38942)3319
Method: paper electrophoresis

Cu++ gl oth/un 30°C 0.10M U K1=7.74 1959Nca (38943)3320

Cu++ gl oth/un 25°C 0.02M U K1=7.85 B2=14.40 1954REa (38944)3321
By polarography, I=0.1 M, B2=14.8. By spectrophotometry K2=4.24

Cu++ vlt oth/un 25°C ? U B2=15.14 1952Lda (38945)3322

C5H9NO4 H2L CAS 1948-48-7 (3038)
3-Carboxymethylaminopropanoic acid; HOOC.CH2.NH.CH2.CH2.COOH

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

Cu++ gl KCl 30°C 0.10M U K1=10.45 B2=14.9 1952Cmb (39152)3323

C5H9NO4 H2L CAS 6384-92-5 (2708)
3-Methyl-aspartic acid; H2N.CH(CH(CH3)COOH).COOH

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

Cu++ gl NaClO4 25°C 0.50M C K1=8.48 B2=15.26 1987LEc (39158)3324
B(CuHL)=12.24

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

Cu++ gl NaClO4 25°C 0.50M U K1=10.92 B2=17.46 1992GLa (39183)3325
B(CuH-1L)=2.43

Cu++ gl KNO3 25°C 0.10M C M K1=11.04 1990DAb (39184)3326
K(CuL+A)=5.76
B(CuLA)=16.80

H2A: salicylaldoxime

Cu++ gl KNO3 25°C 0.10M C M K1=11.04 1990DAc (39185)3327
K(CuL+A)=5.82
B(CuAL)=16.86

HL: benzohydroxamic acid

Cu++ gl KNO3 25°C 0.10M U K1=11.04 1983FSa (39186)3328

Cu++ gl KNO3 25°C 0.10M U K1=11.9 1977TIIa (39187)3329

Cu++ gl KNO3 25°C 0.10M U T M 1973IVa (39188)3330
K(CuL+Pro)=6.68

K(15 C)=6.89, K(37 C)=6.50, K(55 C)=6.11

Cu++ gl KNO3 25°C 0.10M U T M 1972IVa (39189)3331

K(CuL+A)=6.11
K(15 C)=6.19, K(37 C)=5.87, K(55 C)=5.56. HA=cycloserine

Cu++ gl KNO3 25°C 0.05M U M 1969LAa (39190)3332

K(CuL+OH)=6.81
K(CuL+Val)=6.19
K(CuL+A)=4.33
K(CuL+B)=3.19

A=glycine butyl ester, B=valine butyl ester

Cu++ vlt NaClO4 25°C 0.10M U K1=11.20 B2=18.2 1969VPa (39191)3333

Cu++ cal KNO3 20°C 0.10M U H 1965ANa (39192)3334
DH(K1)=-16.1 kJ mol⁻¹, DS=157.6 J K⁻¹ mol⁻¹, DH(B2)=-50.6, DS=170.5

Cu++ gl KCl 20°C 0.10M U K1=11.09 B2=17.92 1955SAa (39193)3335
K(CuL(OH)2+H=CuLOH)=8.89

C5H9NO4S H2L (1736)
3-(Carboxymethyl)thio-L-alanine; HOOC.CH2.S.CH2.CH(NH2)COOH

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

Cu++ gl NaCl 37°C 0.15M C K1=8.109 B2=14.266 1989BVa (39300)3336
B(CuHL)=11.020
B(CuH-1L)=0.297

Cu++ gl KNO3 25°C 0.10M C K1=8.15 1974NBb (39301)3337
K(Cu+HL)=5.16

C5H9NO5 H2L CAS 31454-80-7 (4320)
2-(Hydroxymethyl)iminodiethanoic acid; HOOC.CH2.NH.CH(CH2.OH)COOH

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

Cu++ gl KNO3 25°C 0.10M U M K1=10.93 1973SAe (39314)3338
 K(CuL+Leu)=5.43
 K(CuL+D-Leu)=5.41
 K(CuL+Thr)=5.27
 K(CuL+D-Thr)=5.26

K(CuL+Val)=5.46; K(CuL+D-Val)=5.39

C5H9NO5 H2L (5289)
 4-Hydroxy-2-aminopentane-1,5-dioic acid; HOOC.CH(NH2).CH2.CH(OH).COOH

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

Cu++ gl KNO3 25°C 0.10M U K1=8.40 B2=14.97 1986Nka (39317)3339
 B(CuHL)=12.10

Data for threo-diastereomer; for erithro-diastereomer K1=8.30; B2=14.40,
 B(CuHL)=12.12

C5H9NS2 HL CAS 25769-03-3 (3623)
 Pyrrolidine-N-carboxydithioic acid; C4H8N-CSSH

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

Cu++ sp alc/w 25°C 75% U B2=10.92 1970PNa (39321)3340
 Medium: 75% MeOH, 0.3 M NaClO4

Cu++ sp alc/w 20°C 89% U I K1=14.8 B2=28.40 1957JAa (39322)3341
 Medium: 89% EtOH, 0.01 M NaOH
 K1=10.9(0%), 12.6(51.7%), 13.9(75%); K2=9.9(0%), 12.1(51.7%), 12.9(75%)

Cu++ sp alc/w 25°C 75% U K1=13.9 B2=26.80 1956JAa (39323)3342
 Medium: 75% EtOH, 0.01 M NaOH

Cu++ sp alc/w 25°C 75% U K1=13.9 B2=26.8 1956JAb (39324)3343
 Medium: 75% EtOH

C5H9N3 L Isohistamine CAS 19225-96-8 (4294)
 2-(2'-Aminoethyl)imidazole;

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

Cu++ gl KNO3 25°C 0.10M C H K1=9.85 B2=17.01 1970EHa (39339)3344
 By calorimetry DH(K1)=-48.1 kJ mol⁻¹, DH(K2)=-42.0

Cu++ gl oth/un 25°C 0.10M U K1=9.85 B2=16.98 1969EHc (39340)3345

C5H9N3 L Betazole CAS 51-45-6 (3601)
 3-(2'-Aminoethyl)pyrazole;

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

Cu++ gl oth/un 25°C .02M U K1=7.5 1960HJa (39345)3346

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

Cu++ gl NaCl04 37°C 0.15M U M 1999NNa (39403)3347

B(CuHAL)=21.48
B(CuAL)=16.26
K(CuA+L)=8.25
K(CuL+A)=7.02

K(CuHL+A)=7.97. HA is nicotinic acid.

Cu++ gl NaCl 25°C 0.10M C K1=9.48 B2=15.98 1998TGa (39404)3348

B(CuHL)=12.85
B(CuHL2)=21.48
B(CuH-1L2)=5.19
B(CuH-2L2)=7.02

Cu++ gl NaCl 37°C 0.15M C M K1=9.104 B2=15.214 1997MBa (39405)3349

B(CuHL)=12.42
B(CuHL2)=20.76
B(CuH-1L2)=4.02
B(Cu2H-2L2)=6.71

B(CuH-2L2)=-6.68, B(CuLA)=12.14, B(CuHLA)=16.25. H2A=anthranilic acid

Cu++ gl NaCl04 37°C 0.15M U M 1997NAb (39406)3350

B(CuAL)=17.17
K(CuA+L)=8.57
K(CuL+A)=7.93

H2A is cysteic acid.

Cu++ gl KCl 25°C 0.10M C H R K1=9.56 B2=16.06 1997SJa (39407)3351

B(CuHL)=12.88
B(CuHL2)=21.82

IUPAC evaluation. DH(K1)=-51.0 kJ mol⁻¹, DH(K2)=-41.3, DH(CuHL)=-74.8,
DH(CuHL2)=-125

Cu++ gl NaNO3 25°C 0.10M M M K1=9.55 B2=16.10 1997SKc (39408)3352

B(CuAL)=15.25
B(CuH-1AL)=6.25
B(CuHL)=12.70

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.10M M M K1=10.40 B2=18.12 1995SHc (39409)3353

K(Cu(ada)+L)=5.06
B(CuHL2)=23.84

ada: N-(acetamido)-iminodiethanoic acid. K(H+L)=9.84, K(2H+L)=16.07.

Cu++ gl NaClO4 37°C 0.15M U M 1994NAd (39410)3354
B(CuAL)=18.70
K(CuL+A)=9.46
K(CuA+L)=9.24

H2A is aspartic acid.

Cu++ gl NaClO4 37°C 0.15M U M 1994NAd (39411)3355
B(CuAL)=18.68
K(CuL+A)=9.44
K(CuA+L)=8.20

H2A is iminodiethanoic acid.

Cu++ gl KNO3 25°C 0.10M C M K1=9.66 B2=16.10 1993KAb (39412)3356
B(CuHL2)=21.82
A=famotidine. B(CuLA)=17.06, B(CuH-1LA)=11.36, B(CuH-2LA)=4.20

Cu++ gl NaClO4 37°C 0.15M U M 1993NKb (39413)3357
B(Cu(trp)HL)=22.23
B(Cu(trp)L)=17.25
K(CuHL+trp)=8.77
K(Cu(trp)+L)=9.02
K(CuL+trp)=8.01; B(Cu(glu)HL)=21.95, B(Cu(glu)L)=17.29, K(CuHL+glu)=8.49,
K(Cu(glu)+L)=8.77, K(CuL+glu)=8.05.

Cu++ gl NaClO4 37°C 0.15M U M 1993NKb (39414)3358
B(Cu(met)HL)=21.40
B(Cu(met)L)=16.72
K(CuHL+met)=7.94
K(Cu(met)+L)=8.71
K(CuL+met)=7.48.

Cu++ gl NaClO4 37°C 0.15M U M 1993NKb (39415)3359
B(Cu(met)HL)=22.25
B(Cu(met)L)=17.41
K(CuHL+met)=7.87
K(Cu(met)+L)=9.40
K(CuL+met)=7.14.

Cu++ gl KNO3 35°C 0.20M C M K1=9.02 1992YKa (39416)3360
B(Cu(edda)L)=19.67
K(Cu(edda)+L)=5.17

Cu++ gl KNO3 25°C 0.10M C H 1990BPpa (39417)3361
B(CuL(Ala))=17.05
B(CuL(Phe))=17.10
DH(CuL(Ala))=-77.0, DH(CuL(Phe))=-79.0 kJ mol⁻¹.

Cu++ gl NaClO4 37°C 0.15M U M K1=9.24 B2=16.16 1988NSa (39418)3362
B(CuHL(Asn))=21.36
B(CuL(Asn))=16.89

Cu++ gl KNO3 25°C 0.20M U M K1=9.59 B2=16.11 1981M0d (39429)3373
K(CuA+L)=7.12

A is bis(2-imidazolyl)methane

Cu++ gl KNO3 25°C 0.10M U I K1=9.57 B2=16.14 1980DAb (39430)3374
B(Cu2H-2L2)=7.40
B(CuHL)=12.88
B(CuHL2)=21.83
B(CuH-1L2)=5.40

Also data for 0-77% v/v 1-propanol

Cu++ gl KNO3 25°C 0.10M C M K1=9.56 B2=16.11 1980GMb (39431)3375
B(CuHL)=12.85
B(CuHL2)=21.82
B(CuH-1L2)=5.38
B(Cu2H-2L2)=7.44

Ternary complexes with oxalic, succinic, malonic, maleic & itaconic acids.

Cu++ gl NaClO4 37°C 0.15M U M 1980NSa (39432)3376
B(CuAL)=15.04
B(CuHAL)=19.11
B(CuH-1LA)=7.49
K(CuA+L)=9.34

HA= Glycylglycine. Data also for ternary complexes with other dipeptides

Cu++ gl NaClO4 37°C 0.15M U K1=9.24 B2=16.16 1980NSb (39433)3377
B(CuHL)=13.46
B(CuHL2)=21.82
B(CuL(His))=17.78
B(CuH2L(His))=27.88

Cu++ gl NaClO4 37°C 0.15M U M 1980NSc (39434)3378
B(CuL(Gly))=17.27
B(CuHL(Gly))=21.45

Cu++ gl KNO3 25°C 0.20M C HM K1=9.59 B2=16.11 1979MBb (39435)3379
K(Cu(bpy)+L)=7.15
DH(K1)=-51.5 kJ mol⁻¹, DH(K2)=-41, DH(Cu(bpy)+L)=-37

Cu++ gl KCl 25°C 0.20M U M K1=9.58 B2=16.06 1978SKa (39436)3380
B(CuHL2)=21.79
B(Cu2H-2L2)=7.0
B(CuH-1L)=1.2
B(CuL(Gly))=17.00, B(CuL(His))=18.21, B(CuL(en))=18.66, B(CuL(bpy))=15.40

Cu++ gl KNO3 25°C 0.10M C M K1=9.57 B2=16.14 1976D0b (39437)3381
B(CuHL)=12.88
B(CuHL2)=21.83
B(Cu2H-2L2)=7.40

B(CuH-1L2)=5.40

B(CuL(citrate))=14.95

Cu++ gl KCl 25°C 0.20M C H T K1=9.58 B2=16.06 1976GSd (39438)3382

B(CuHL2)=21.79

B(Cu2L2(OH)2)=7.0

By calorimetry: DH(K1)=-54.2 kJ mol⁻¹, DH(B2)=-95.4, DH(CuHL2)=-129

Cu++ gl KCl 25°C 0.20M C H K1=9.58 B2=16.06 1976SGa (39439)3383

B(CuHL2)=21.79

B(CuH-1L)=1.2

B(Cu2H-2L2)=7.00

By calorimetry: DH(K1)=-54.3 kJ mol⁻¹, DS(K1)=1 J K⁻¹ mol⁻¹;

DH(B2)=-95.4, DS(B2)=-13; DH(CuHL2)=-129.0; DS(CuHL2)=-16.

Cu++ gl KCl 25°C 0.20M C HM 1976SGa (39440)3384

B(Cu(gly)L)=17.00

K(CuL+gly)=7.42

K(Cu(gly)+L)=8.93

By calorimetry: DH(Cu(gly)L)=-80.8 kJ mol⁻¹, DS(Cu(gly)L)=54 J K⁻¹ mol⁻¹;

DH(CuL+gly)=-26.5, DH(Cu(gly)+L)=-55.2.

Cu++ gl KCl 25°C 0.20M C HM 1976SGa (39441)3385

B(Cu(en)L)=18.66

K(CuL+en)=9.08

K(Cu(en)+L)=8.09

By calorimetry: DH(Cu(en)L)=-104.6 kJ mol⁻¹, DS(Cu(en)L)=6 J K⁻¹ mol⁻¹;

DH(CuL+en)=-50.3, DH(Cu(en)+L)=-51.2.

Cu++ gl KCl 25°C 0.20M C HM 1976SGa (39442)3386

B(Cu(pn)L)=17.00

K(CuL+pn)=7.42

K(Cu(pn)+L)=7.35

pn is 1,3-diaminopropane.

Cu++ gl KCl 25°C 0.20M C HM 1976SGa (39443)3387

B(CuAL)=16.90

K(CuL+A)=7.32

K(CuA+L)=6.96

By calorimetry: DH(CuAL)=-91.6 kJ mol⁻¹, DS(CuAL)=16 J K⁻¹ mol⁻¹;

DH(CuL+A)=-37.3, DH(CuA+L)=-45.0. A is N,N'-dimethyl-1,2-diaminoethane.

Cu++ gl KCl 25°C 0.20M U M K1=9.60 B2=16.09 1973GSb (39444)3388

B(CuL(Gly))=17.03

B(CuL(Ala))=16.99

B(CuLA)=16.97

B(CuLB)=16.94

HA=norvaline, HB=a-aminobutanoic acid

Cu++ gl KNO3 37°C 0.15M U M K1=9.28 B2=15.58 1972SLa (39445)3389

B(CuL(Ser))=16.27

Cu++ gl KNO3 25°C 0.20M U T K1=9.53 B2=15.74 1971RMD (39446)3390
K1(15 C)=9.80, K1(40 C)=9.13, K2(15 C)=6.46, K2(40 C)=5.82

Cu++ gl KNO3 25°C 0.10M C H T K1=9.56 B2=16.13 1970EHa (39447)3391
By calorimetry DH(K1)=-47.6 kJ mol⁻¹, DH(K2)=-40.1

Cu++ gl KNO3 25°C 0.16M U K1=9.56 B2=15.93 1970MBb (39448)3392

Cu++ gl oth/un 25°C 0.10M U K1=9.56 B2=16.13 1969EHc (39449)3393

Cu++ gl oth/un 25°C 0.10M U M K1=9.67 B2=16.41 1969HGb (39450)3394
B(CuLA)=23.15

H2A=catechol

Cu++ gl NaClO4 25°C 0.30M C H T K1=9.56 B2=16.20 1967HWa (39451)3395
By calorimetry DH(K1)=-43.0 kJ mol⁻¹, DH(K2)=-42.8

Cu++ gl KNO3 37°C 0.15M U M K1=9.278 B2=15.577 1967PSc (39452)3396
K(Cu(en)+L)=7.86
K(Cu(Ser)+L)=8.71
K(CuA+L)=8.41

H2A=salicylic acid

Cu++ gl oth/un 20°C 0.0 U K1=9.76 B2=16.47 1966PSc (39453)3397
K(Cu2(OH)2L2+2H)=11.99

Cu++ sp oth/un 22°C 1.50M U K1=9.83 B2=26.43 1966ZAa (39454)3398
Medium: K2S04

Cu++ ISE oth/un 36°C 1.50M U K1=9.45 B2=25.41 1966ZAa (39455)3399
K(CuLOH+H)=7.1

Medium: K2S04

Cu++ gl KNO3 25°C 0.10M U K1=9.48 B2=15.90 1964DCb (39456)3400
K(CuLOH+H)=7.0
K(2CuLOH=(CuLOH)2)=2.2

Cu++ gl KNO3 25°C 0.20M U K1=9.43 1963CCb (39457)3401

Cu++ gl oth/un 25°C .015M U T H K1=9.55 B2=16.04 1962HJa (39458)3402
At 0 C: K1=10.10, B2=17.00. At 25 C, DH(K1)=33.4 kJ mol⁻¹, DS=66.9 J K⁻¹ mol⁻¹;
DH(B2)=-58.5, DS=105

Cu++ gl oth/un 20°C 0.0 U T H K1=9.82 B2=16.51 1960NFa (39459)3403
10 C: K1=10.25, K2=7.02; 30 C: 9.50, 6.45; 40 C: 9.12, 6.20
DH(K1)=-64.9 kJ mol⁻¹, DS=-4.2; DH(K2)=-48.5, DS=-37.7

Cu++ gl KCl 25°C .135M U T K1=9.55 B2=16.03 1955MAb (39460)3404

0 C: K1=10.1, K2=6.9

Cu++ gl oth/un 20°C .015M U B2=16.2 1952ALa (39461)3405

Cu++ gl KNO3 30°C 1.0M U K1=9.60 B2=16.09 1952HAa (39462)3406

C5H9N3 L (3602)
4(5)-Aminomethyl-2-methylimidazole;

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

Cu++ gl oth/un 25°C .015M U T H K1=8.56 B2=15.60 1962HJa (39550)3407
At 0 C: K1=9.09,B2=16.57. At 25 C:DH(K1)=-33.4 kJ mol-1,DS=54.3 J K-1 mol-1;
DH(B2)=-62.7,DS=96.1

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

Cu++ sp KNO3 30°C 0.10M U K1=8.1 1967GNb (39555)3408

Cu++ cal KNO3 30°C 0.10M U H 1967GNc (39556)3409
DH(K1)=-10.9 kJ mol-1, DS=117 J K-1 mol-1

C5H9N3O5 H2L CAS 85594-21-4 (9125)
2-(Acetylamino)-N,N'-dihydroxypropanediamide;

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

Cu++ vlt KNO3 25°C 0.10M C K1eff=12.47 2004YYa (39578)3410
Method: square wave voltammetry. Medium pH 7.0.

C5H9N3O5 H2L CAS 4438-86-2 (3622)
Semicarbazone-1,1-diethanoic acid; H2N.CO.NH.N(CH2.COOH)2

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

Cu++ sp KNO3 30°C 0.10M U K1=8.4 1967GNb (39585)3411

Cu++ cal KNO3 30°C 0.10M U H 1967GNc (39586)3412
DH(K1)=-2.1 kJ mol-1, DS=154 J K-1 mol-1

C5H9O2Br HL CAS 95338-79-7 (1435)
2-Bromo-2-methylbutanoic acid; CH3.CH2.C(CH3)Br.COOH

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

Cu++ sp NaClO4 20°C 2.00M U M K1=1.43 B2=2.55 1983JOa (39612)3413

K(Cu(bpy)+L)=1.55

C5H9O2Br HL Br-isovaleric CAS 565-74-2 (1310)
2-Bromo-3-methylbutanoic acid; (CH3)2CH.CH(Br)COOH

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

Cu++ ISE NaCl04 25°C 1.00M U K1=1.50 1987FYa (39615)3414

Cu++ gl NaCl04 20°C 2.00M U K1=1.5 B2=2.6 1981J0a (39616)3415

Spectrophotometry also used.
Ligand: Alpha-bromoisovaleric acid.

C5H10N07P H4L CAS 185745-21-5 (8090)
3-Amino-3-phosphonoglutaric acid;

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

Cu++ gl KCl 25°C 0.20M C K1=11.53 1996KJa (39622)3416

B(CuH-1L)=1.83
B(CuH2L)=24.96
B(CuH2L2)=43.20
B(Cu2HL2)=34.73

Alternative model: K1=11.42, B(CuHL)=20.03, B(CuH2L)=24.87, B(CuH-1L)=1.70

C5H10N07P H4L PMIDA CAS 5994-61-6 (2433)
N-(Phosphonomethyl)iminodiethanoic acid; H2O3P.CH2.N(CH2.COOH)2

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

Cu++ gl KNO3 25°C 0.10M C K1=15.3 2000SDa (39638)3417

K(CuL+H)=4.72
K(CuHL+H)=2.2
K(CuL+OH)=3.9

Cu++ gl KCl 25°C 0.20M C K1=13.83 1997BKb (39639)3418

B(CuHL)=18.52
B(CuH-1L)=3.98

Cu++ gl NaCl 25°C 0.10M U K1=14.08 1993DLA (39640)3419

B(CuHL)=18.77

Cu++ gl KCl 25°C 0.15M U TIH K1=15.00 1991KMc (39641)3420

K(Cu+HL)=8.87

At 60 C K1=14.03; K(Cu+HL)=8.03

C5H10N2O L Prolinamide CAS 7531-52-4 (5978)
Prolinamide;

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

A is picolylamine

Cu++	gl	KNO3	25°C	0.10M	C		K1=7.76		1999BIa (39766)3429
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Cu++	gl	KNO3	25°C	0.10M	C	H	K1=7.71	B2=14.12	1998ACb (39767)3430
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By calorimetry|: DH(K1)=-19.8 kJ mol⁻¹, DS=79 J K⁻¹ mol⁻¹; DH(B2)=-42.3
DS=124

Cu++	gl	KNO3	25°C	0.10M	C		K1=7.765	B2=14.27	1998ZYa (39768)3431
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Cu++	gl	NaCl	37°C	0.15M	C	TIH R	K1=7.47	B2=13.59	1995BEa (39769)3432
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IUPAC evaluation. 25 C, I=0.1 M KNO3(Tentative) K1=7.75, B2=14.25
DH(K1)=-24 kJ mol⁻¹, DH(B2)=-49

Cu++	gl	NaClO4	37°C	0.15M	U		K1=7.59	B2=13.68	1994NAc (39770)3433
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Cu++	gl	NaClO4	37°C	0.15M	U	M			1994NAc (39771)3434
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B(Cu(glu)L)=14.34
K(Cu(glu)+L)=5.82
K(CuL+glu)=6.75

Cu++	gl	NaClO4	25°C	0.20M	C		K1=7.78		1993BAb (39772)3435
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Cu++	gl	NaCl	37°C	0.15M	U	T	K1=7.474	B2=13.600	1985CFb (39773)3436
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B(CuH-1L)=-0.07

Cu++	gl	KCl	25°C	0.10M	C	M T	K1=7.475	B2=13.59	1982KBd (39774)3437
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B(CuL(histamine))=15.97
B(CuHL(histamine))=20.11

Cu++	ISE	diox/w	25°C	20%	U		K1=8.02	B2=14.80	1980YTa (39775)3438
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Cu++	sp	KNO3	25°C	0.10M	U	M			1979YSa (39776)3439
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B(Cu(His)L)=17.06

Cu++	gl	KCl	25°C	0.20M	C	M			1977NGa (39777)3440
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B(CuH-1LA)=4.65
B(CuH-1LB)=4.69
B(CuH-1LC)=4.32
K(CuH-1L2+A=CuH-1LA+L)=0.19
K(CuH-1L2+B=CuH-1LB+L)=0.06, K(CuH-1L2+C=CuH-1LC+L)=0.12
HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++	gl	KCl	25°C	0.20M	C				1976NGd (39778)3441
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K(CuH-1A2+L=CuH-1AL+A)=4.65
K(CuH-1C2+L=CuH-1CL+C)=4.69
K(CuH-1D2+L=CuH-1DL+D)=4.32
HA is glycylglycine; HC is glycyl-DL-alpha-alanine;
HD is DL-alanyl-DL-alanine.

Cu++ gl KCl 25°C 0.20M U H T K1=7.62 B2=14.00 1975GNa (39779)3442
 B(CuL(Gly))=14.70
 B(CuL(Ser))=14.53

 Cu++ gl NaCl 25°C 0.15M U M K1=7.77 B2=14.61 1973KSb (39780)3443
 B(CuL(His))=17.62
 B(CuHL(His))=21.65

 Cu++ gl NaCl04 25°C 0.10M U K1=7.38 B2=13.52 1973TSb (39781)3444

 Cu++ gl NaCl04 25°C 3.00M U K1=9.05 B2=16.54 1973WIa (39782)3445

 Cu++ gl KNO3 25°C 0.10M U T K1=7.74 B2=14.20 1965RWa (39783)3446

C5H10N2O3 HL Ala-Gly CAS 687-69-4 (55)
 Alanyl-glycine; H2N.CH(CH3).CO.NH.CH2.COOH

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

 Cu++ gl KCl 25°C 0.10M U M K1=5.71 1988YMa (39870)3447
 K(CuH-1L+H)=4.65
 B(CuL(ATP))=8.67

 Cu++ nmr KCl 20°C 0.20M U K1=5.28 1983KRa (39871)3448
 B(CuH-1L)=1.22
 B(CuH-2L)=-8.41
 B(CuH-1L2)=3.83
 B(CuH-3L2)=-5.18

 Cu++ gl KCl 20°C 0.20M U 1981KRa (39872)3449
 K(Cu+HL=CuL+H)=-3.24
 K(Cu+HL=CuH-1L+2H)=-7.03
 K(Cu+HL=CuH-2L+3H)=-16.73
 K(Cu+2HL=CuL2+2H)=-6.15
 K(Cu+2HL=CuH-1L2+3H)=-12.74; K(Cu+2HL=CuH-2L2+4H)=-23.96

 Cu++ gl NaCl04 37°C 0.15M U K1=5.58 1980NSc (39873)3450
 B(CuH-1L2)=4.68

 Cu++ cal KCl 25°C 0.20M C H K1=5.25 1977GNa (39874)3451
 B(CuH-1L)=1.35
 B(CuH-2L)=-8.16
 B(CuH-1L2)=3.95
 B(Cu2H-3L2)=-4.66

Also DH and DS values

 Cu++ gl KCl 25°C 0.20M C H K1=5.25 1976GNb (39875)3452
 B(CuH-1L)=1.35
 B(CuH-2L)=-8.16
 B(CuH-1L2)=3.95

Cu++ gl NaClO4 30°C 0.20M U M K1=5.84 1990CBa (39976)3469
 K(CuL=CuH-1L+H)=-4.41
 B(CuLA)=18.26
 K(CuLA=CuH-1LA+H)=-8.17
 K(Cu+L+HB)=17.79
 H2A=catechol. K(CuL(HB)=CuH-1L(HB)+H)=-8.57; H3B=pyrogallol. B(CuLC)=18.43,
 K(CuLC=CuH-1LC+H)=-8.88; H4C=tiron. B(CuLD)=16.4; H2D=2,3-dihydroxynaphthale

 Cu++ gl NaClO4 30°C 0.20M U K1=6.48 1990CBb (39977)3470
 K(CuH-1L+H)=3.92

 Cu++ gl NaClO4 25°C 0.20M U M K1=5.84 1990Mca (39978)3471
 K(CuH-1L+H)=4.41
 B(CuL(His))=16.14
 B(CuHL(His))=21.06
 B(CuH-1L(His)+H)=8.57

 Cu++ cal KNO3 25°C 0.50M C H K1=5.65 1985AJb (39979)3472
 B(CuH-1L)=15.09
 B(CuH-1L2)=18.25
 K(Cu+L=CuH-1(OH)L+2H)=19.60
 DH(K1)=-21.0 kJ mol⁻¹, DH(CuH-1L)=5.6, DH(CuH-1L2)=-22.0,
 DH(CuH-1(OH)L)=43.9.

 Cu++ gl NaClO4 37°C 0.15M U K1=5.85 1980NSc (39980)3473
 B(CuH-1L2)=5.50

 Cu++ cal KCl 25°C 0.20M C H K1=5.76 1977GNa (39981)3474
 B(CuH-1L)=1.55
 B(CuH-2L)=-7.94
 B(CuH-1L2)=4.63
 B(Cu2H-3L2)=-4.18

Also DH and DS values

 Cu++ gl KCl 25°C 0.20M C H K1=5.76 1976GNb (39982)3475
 B(CuH-1L)=1.55
 B(CuH-2L)=-7.94
 B(CuH-1L2)=4.63
 B(Cu2H-3L2)=-4.18

Calorimetry: DH(K1)=-27.0 kJ mol⁻¹, DS=20J K⁻¹ mol⁻¹; DH(CuH-1L)=-3.2, DS=40
 DH(CuH-2L)=47.6, DS=8; DH(CuH-1L2)=-24.1, DS=-8; DH(Cu2H-3L2)=36.8, DS=43.

 Cu++ gl KNO3 25°C 0.10M C K1=5.741 B2=11.16 1975BPa (39983)3476
 B(CuH-1L)=1.686
 B(CuH-2L)=-7.723
 B(CuH-1L2)=4.910
 B(Cu2H-3L2)=-3.76

 Cu++ gl NaClO4 25°C 0.10M U K1=5.79 1975SIIa (39984)3477
 K(Cu(bpy)+L)=5.61

Cu++ gl KNO3 25°C 0.10M U K1=5.80 1972BBc (39985)3478
K(CuH-1L+H)=4.14

Cu++ gl NaCl 25°C 0.12M U K1=5.61 1967SBf (39986)3479
K(CuH-1L+H)=4.81
K(CuH-1L+L)=3.84
K(Cu(H-1L)2+H)=9.81
K(CuH-1LOH+H)=10.42

Cu++ gl KCl 25°C 0.16M U K1=5.67 1965BPc (39987)3480
K(CuH-1L+H)=4.03

Cu++ gl NaCl 25°C 0.10M U K1=5.81 1959BRb (39988)3481
K(CuH-1L+L)=9.0
K(CuH-1L+H)=4.35
K(Cu(H-1L)2+H)=9.28

C5H10N2O3 HL Gly-Sar CAS 29816-01-1 (2331)
Glycyl-sarcosine; H2N.CH2.CO.N(CH3).CH2.COOH

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

Cu++ gl NaClO4 30°C 0.10M U T H K1=6.41 1986AJb (40019)3482
B(CuH-1L2)=6.34
DH(K1)=-29.3 kJ mol⁻¹, DS=25.8 J K⁻¹ mol⁻¹, DH(CuH-1L2)=25.3, DS=14.8

Cu++ gl NaClO4 30°C 0.10M C K1=6.41 B2=11.54 1980ASb (40020)3483

Cu++ gl NaClO4 25°C 0.10M U K1=6.34 B2=11.48 1975SIa (40021)3484
K(Cu(bpy)+L)=6.21

Cu++ gl KNO3 25°C 0.05M U K1=6.28 B2=11.16 1973NAa (40022)3485

Cu++ gl KNO3 25°C 0.10M U K1=6.42 B2=11.44 1972BBc (40023)3486

Cu++ gl KCl 25°C 0.16M U K1=6.13 B2=10.75 1960KFb (40024)3487

Cu++ gl oth/un 25°C 0.02M U K1=6.50 B2=11.74 1956DRb (40025)3488

C5H10N2O3 L CAS 5619-16-9 (4324)
Glycylglycine methyl ester; H2N.CH2.CO.NH.CH2.CO2CH3

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

Cu++ gl KNO3 25°C 0.05M U K1=4.11 1973NAa (40030)3489
K(CuH-1L+L)=3.30
K(CuH-1L+H)=5.23
K(CuH-2L2+H)=6.57

C5H10N2O3 HL Sar-Gly (2332)
 Sarcosyl-glycine; CH3.NH.CH2.CO.NH.CH2.COOH

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

 Cu++ gl NaClO4 25°C 0.10M U K1=5.32 1975SIa (40035)3490
 K(Cu(bpy)+L)=4.32

 Cu++ gl KCl 25°C 0.16M U K1=4.39 1960KFb (40036)3491
 K(CuH-1L+H)=3.45
 K(CuH-1L+L)=3.42
 K(CuH-1LOH+H)=9.19
 K(CuH-1L(OH)2+H)=11.9
 K(CuH-1LOH+CuH-1L=(CuH-1L)2OH)=1.48

 Cu++ gl oth/un 25°C 0.02M U K1=5.30 1956DRb (40037)3492

 C5H10N2O3 HL B-Ala-Gly CAS 2672-88-0 (4323)
 beta-Alanylglycine; H2N.CH2.CH2.CO.NH.CH2.COOH

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

 Cu++ gl KCl 25°C 0.20M U K1=5.82 1993SFa (40046)3493
 B(CuHL)=10.83
 B(CuH-1L)=1.26
 B(CuH-2L)=-8.58
 B(CuH-1L2)=3.86

 Cu++ gl NaClO4 25°C 0.10M M M K1=6.15 1981SPd (40047)3494
 K(Cu+H2L=CuL+2H)=-6.71
 K(Cu+H2L=CuH-1L+3H)=-11.46
 K(CuH-1L+H)=4.75
 K(Cu(bpy)+L)=5.0; K(CuH-1L(bpy)+H)=7

 Cu++ gl KNO3 25°C 0.10M U K1=5.45 1971YMa (40048)3495
 K(CuH-1L+H)=4.09

 Cu++ gl KNO3 25°C 0.10M U K1=5.61 1969YHa (40049)3496
 K(CuH-1L+H)=4.29

 C5H10N2O4 H2L (6346)
 2,4-Diaminopentanedioic acid; HOOC.CH(NH2).CH2.CH(NH2).COOH

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

 Cu++ gl KNO3 25°C 0.10M U K1=11.80 B2=17.18 1984NKb (40068)3497
 B(CuHL)=17.02

Erithro(meso) isomer. For threo-form: K1=11.48, B2=16.74, B(CuHL)=16.5

 C5H10N2O4 HL CAS 1955-67-5 (6736)

2-Aminopentanoic-5-hydroxamic acid; HOOC.CH(NH₂).CH₂.CH₂.CO.NOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu ⁺⁺	gl	KCl	25°C	0.10M	C			B ₂ =16.21 B(CuHL)=17.24 B(CuH ₂ L ₂)=33.18 B(Cu ₂ L ₂)=27.51 B(Cu ₅ H-4L ₄)=39.76	2004TDa (40073)	3498
B(CuHL ₂)= 25.23. DH(CuHL)=-50.1 kJ mol ⁻¹ , DS(CuHL)=162 J K ⁻¹ mol ⁻¹ DH(CuH ₂ L ₂)=-97.1, DS=309, DH(Cu ₂ L ₂)=-73, DS=280, DH(Cu ₅ H-4L ₄)=-90, DS=458										

Cu ⁺⁺	gl	KCl	25°C	0.20M	C			B(CuHL)=18.82 B(Cu ₂ H ₂ L)=33.24 B(Cu ₂ HL)=26.05 B(Cu ₂ L)=17.00	1993FBa (40074)	3499
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B(Cu₂H-1L)=6.98

C₅H₁₀N₂O₄ HL Gly-Ser CAS 7361-43-5 (281)
Glycyl-serine; H₂N.CH₂.CO.NH.CH(CH₂.OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu ⁺⁺	nmr	none	18°C	0.0	U			K ₁ =5.74 B(CuHL)=9.3 B(CuH-1L)=1.81 B(CuH-3L)=-20.41	2001SAa (40093)	3500

Cu ⁺⁺	gl	KCl	25°C	1.00M	C			K(CuH-1L ₂ =CuH-1LOH+L+H)=-12.31	1989FKa (40094)	3501
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Cu ⁺⁺	gl	NaCl ₀₄	25°C	0.10M	C	M		K ₁ =5.66 B(CuH-1L(Gly))=1.65 B(CuH-1L(b-Ala))=4.94 B(CuH-1L(Val))=4.89 B(CuH-1L(Thr))=4.73	1983SHa (40095)	3502
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Data also for Cu complexes with Ser, Tyr and Glu.

Cu ⁺⁺	gl	KCl	25°C	0.20M	C	HM		K ₁ =5.66 B(CuH-1L)=1.68 B(CuH-2L)=-7.67 B(CuH-1L ₂)=4.64 B(Cu ₂ H-3L ₂)=-3.80	1982GFa (40096)	3503
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DH(K₁)=-29 kJ mol⁻¹, DS=7. + ternary complexes with many D and L amino acids

Cu ⁺⁺	gl	NaCl ₀₄	25°C	0.10M	U	M		K ₁ =5.66 K(Cu(bpy)+L)=5.56	1977SNa (40097)	3504
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C₅H₁₀N₂O₄ HL (7020)

N-Carboxymethylaminoaceto-N'-methylhydroxamic acid;

```
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      sp  NaClO4 20°C 0.10M U          K1=13.08      1978Kpd (40106)3505
*****
C5H10N2O4          HL      Ser-Gly          CAS 687-63-8 (2386)
Seryl-glycine; H2N.CH(CH2.OH).CO.NH.CH2.COOH
-----
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      nmr none 18°C 0.0 U          K1=5.55      2001SAa (40110)3506
B(CuHL)=9.0
B(CuH-1L)=1.58
B(CuH-3L)=-13.7
-----
```

```
-----
Cu++      gl  KCl 25°C 1.00M C          1989FKa (40111)3507
K(CuH-1L2=CuH-1LOH+L+H)=-11.97
K(CuH-1L2=CuH-2L2+H)=-10.40
-----
```

```
-----
Cu++      gl  KCl 25°C 0.20M C          K1=4.84      1986FTa (40112)3508
B(CuH-1L)=1.32
B(CuH-2L)=-7.82
B(CuH-1L2)=4.15
B(Cu2H-2L2)=-4.1
K(Cu+HL=CuL+H)=2.52, *K(CuL)=-3.52, K(CuH-1L+L)=2.83,
K(CuH-1L+OH)=4.61.
-----
```

```
-----
Cu++      gl  KCl 25°C 0.20M C      M          1986FTa (40113)3509
B(CuH-1(ala)L)=5.45
B(CuH-1(b-ala)L)=5.87
B(Cu(bpy)L)=12.11
B(CuH-1(bpy)L)=5.39
B(CuAL)=13.20, B(CuH-1AL)=5.91, K(CuH-1L+A)=4.59; H2A is aspartic acid.
K(CuH-1L+ala)=4.13, K(CuH-1L+b-ala)=3.55, K(CuH-1L+bpy)=4.07.
-----
```

```
-----
Cu++      gl  NaClO4 25°C 0.10M U      M          K1=4.96      1977SNa (40114)3510
K(Cu(bpy)+L)=4.32
*****
C5H10N4O5          HL          (2817)
Biacetylmonoxime-thiosemicarbazone; CH3.C(:N.NH.CS.NH2).C(:N.OH).CH3
-----
```

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  alc/w 30°C 50% U T H      K1=9.48      1992HRa (40127)3511
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4. Data for 40 and 50 C.
DH(K1)=-21.6 kJ mol-1, DS(K1)=-109 J K-1 mol-1.
*****
C5H10N4O3          L          CAS 54376-69-1 (8335)
N,N'-Carbonylbis(2-aminoacetamide);
-----
```

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

Cu++ gl NaClO4 25°C 0.10M U TIH K1=10.25 B2=16.75 1980SAc (40133)3512
Data for 0.075-0.15 M. At I=0, K1=10.70, K2=7.00. Also data for 30 C.
DH and DS values.

C5H10N6S2 L (6344)
1,2-Dioxopropane-1,2-bis(thiosemicarbazone)

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

Cu++ sp alc/w 25°C 50% U K1=12.41 B2=24.39 1987MDc (40140)3513
B3=28.62

Medium: 50% EtOH/H2O, 0.1 M KClO4. Data also for other ligand analogues

C5H10O5S2 HL CAS 110-50-9 (591)
(Butoxy)dithiomethanoic acid; CH3.CH2.CH2.CH2O.CSSH

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

Cu++ dis oth/un 25°C 0.25M U B2=16.6 1982SAa (40150)3514

Cu++ sp oth/un ? ? U K1=6.58 B2=7.92 1973KDd (40151)3515

C5H10O2 HL CAS 600-07-7 (1317)
2-Methyl-butanoic acid; CH3.CH2.CH(CH3)COOH

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

Cu++ gl NaClO4 20°C 2.00M U K1=2.1 B2=3.8 1981J0a (40170)3516
B3=5.26

Spectrophotometry also used.

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

Cu++ gl NaNO3 25°C 0.10M C I M K1=1.70 1988LTc (40177)3517
K(Cu(phen)+L)=1.78

Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures

Cu++ sp NaClO4 20°C 2.00M U M K1=1.97 B2=3.59 1983J0a (40178)3518
K(Cu(bpy)+L)=2.13

Cu++ gl NaClO4 20°C 2.00M U K1=2.00 B2=3.70 1981J0a (40179)3519
B3=5.25

Spectrophotometry also used.

Cu++ sol oth/un 25°C ->0 U K1=2.08 1951LWa (40180)3520

 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

Cu++ dis non-aq 25°C 100% C I 2000NYa (40193)3521
 K(Cu+2HA(o)=CuL2(o)+2H)=-8.04
 Method: distribution from 0.10 M NaClO4 into pentan-1-ol. Also data for
 hexan-1-ol, heptan-1-ol and octan-1-ol. K(2Cu+4HA(o)=Cu2L4(o)+4H)=-13.80

 Cu++ gl diox/w 25°C 50% C M K1=3.44 1985STb (40194)3522
 K(Cu(phen)+L)=3.61

 Cu++ gl NaClO4 25°C 3.0M U K1=1.92 B2=<3.0 1964PCa (40195)3523

Cu++ sol oth/un 25°C ->0 U K1=2.12 1951LWa (40196)3524

 C5H10O2 HL Pivalic acid CAS 75-98-9 (3026)
 Trimethylethanoic acid, 2,2-Dimethylpropanoic acid; (CH3)3C.COOH

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

Cu++ sp NaClO4 20°C 2.00M U M K1=1.92 B2=3.39 1983J0a (40211)3525
 K(Cu(bpy)+L)=2.09

 Cu++ gl NaClO4 25°C 3.0M U K1=1.87 B2=3.7 1964PCa (40212)3526

Cu++ sol oth/un 25°C ->0 U K1=2.19 1951LWa (40213)3527

 C5H10O2S HL CAS 4455-13-4 (4321)
 (1-Methylethylthio)ethanoic acid; (CH3)2.CH.S.CH2.COOH

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

Cu++ gl diox/w 25°C 50% U M K1=3.93 1972SGa (40225)3528
 K(CuA+bpy)=3.94

Medium: 50% dioxan, 0.1 M NaClO4

 Cu++ gl diox/w 30°C 50% U K1=3.6 B2=6.40 19710Ta (40226)3529
 Medium: 50% v/v dioxan, 1.0 M KNO3

 Cu++ gl NaClO4 25°C 1.00M U K1=2.49 B2=4.77 1971SAb (40227)3530
 B3=5.11

 C5H10O2S HL CAS 20600-60-6 (4322)
 (Propylthio)ethanoic acid; CH3.CH2.CH2.S.CH2.COOH

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

Cu++ gl diox/w 25°C 50% U M K1=3.87 1972SGa (40232)3531
K(CuA+bpy)=3.92

Medium: 50% dioxan/H2O, 0.1 M NaClO4

Cu++ gl diox/w 30°C 50% U K1=3.5 B2=6.40 19710Ta (40233)3532
Medium: 50% (v/v) dioxan/H2O, 1 M KNO3

C5H10O2S HL CAS 7244-82-8 (3042)
3-Ethylthiopropionic acid; CH3.CH2.S.CH2.CH2.COOH

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

Cu++ gl diox/w 30°C 50% U K1=4.2 1956IFa (40237)3533

C5H10O3 HL (4296)
Isopropoxyethanoic acid; (CH3)2.CH.O.CH2.COOH

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

Cu++ gl NaClO4 25°C 1.00M U K1=1.78 B2=2.89 1971SAb (40291)3534

C5H10O5 L D-Arabinose CAS 10323-20-3 (3606)
D-Arabinose;

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

Cu++ ISE KNO3 25°C 0.70M U K1=0.18 1986HAe (40330)3535

C5H10O5 L CAS 1114-34-7 (6113)
D-Lyxose

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

Cu++ ISE KNO3 25°C 0.70M U K1=-0.29 1986HAe (40337)3536

C5H10O5 L D-Ribose CAS 50-69-1 (512)
D-Ribose;

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

Cu++ ISE KNO3 25°C 0.70M U K1=0.22 1986HAe (40341)3537

C5H10O5 L D-Xylose CAS 58-86-6 (3607)
D-Xylose;

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

Cu++ ISE KNO3 25°C 0.70M U K1=-0.29 1986HAe (40358)3538

C5H10O6 HL D-Ribonic acid CAS 18315-89-4 (6941)
 2R,3S,4R,5-Tetrahydroxo-pentanoic acid; D-Ribonic acid;

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

 Cu++ gl NaClO4 25°C 0.10M C K1=2.60 B2= 5.00 1998GGa (40375)3539
 B(CuH-1L2)=-1.03
 B(CuH-2L2)=-8.78
 B(Cu2H-3L2)=-7.96
 B(Cu2H-4L2)=-16.17
 B(CuH-3L)=-20.74

Cu++ gl NaNO3 20°C 0.10M C K1=3.52 B2= 6.10 1992ESa (40376)3540
 K(CuL=CuH-2L+2H)=-11.85
 B(Cu2H-3L2)=-7.26
 *K(CuH-2L)=-10.30
 *K(CuL2)=-6.09

C5H11N L CAS 1003-03-8 (304)
 Cyclopentylamine;

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

 Cu++ gl NaClO4 37°C 0.15M C K1=8.006 1974Mwb (40388)3541
 B(Cu2H-2L2)=12.013

C5H11N L Piperidine CAS 110-89-4 (105)
 Perhydropyridine; cyclo(-CH2.CH2.CH2.NH.CH2.CH2-) C5H11N

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

 Cu++ sp NaClO4 25°C 0.20M U K(CuA+L=CuAL)=3.10 1991CCb (40409)3542

A is rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane

 Cu++ sp mixed ? 50% U I M K(CuCl2+L)=2.26 1973AMc (40410)3543
 K(CuCl2+2L)=5.51

Medium: 50% isopentanol/50% benzene. 25%/75%, 2.24, 5.51.
 100%/0%: K(CuCl2+L)=2.22, K(CuCl2+2L)=5.57. Data also in other media

 Cu++ sp non-aq ? 100% U M K(CuA2+L)=4.04 1971MAh (40411)3544
 K(CuA2+2L)=3.60

Medium: benzene. HA=dibenzoylmethane. In CHCl3, Values are 3.51, 3.60.
 In DMF, 2.60, 3.30. In 92% benzene, 8% DMF, 2.00, 3.70

 Cu++ oth non-aq 20°C 100% U M K(CuA2+L=CuA2L)=0.52 1959GRb (40412)3545

Medium: CHCl3. HA=acetylacetone. In cyclohexane K=2.81

C5H11NO2 HL N,N-DiMeAlanine CAS 19036-43-2 (6128)
2-(N,N-Dimethylamino)propanoic acid; (CH3)2N.CH(CH3).COOH

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

Cu++ gl KCl 25°C 0.10M U K1=7.11 B2=13.32 1977KDa (40470)3546

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

Cu++ gl NaNO3 25°C 0.10M C M K1=7.97 B2=14.82 2004SSa (40549)3547
B(CuH-1L)=1.68
B(CuH-2L)=-10.10
B(CuLA)=13.48
B(CuHLA)=17.80
B(CuH-1LA)=6.22. HA is 6-aminopenicillanic acid.

Cu++ gl alc/w 25°C 40% C K1=9.25 B2=16.65 2003DKa (40550)3548
B(CuHL)=7.31
Medium: 40% v/v EtOH/H2O, 0.10 M NaCl.

Cu++ gl NaNO3 25°C 0.10M M M K1=8.16 B2=14.97 2002SKa (40551)3549
B(CuAL)=17.48
A is picolylamine

Cu++ gl oth/un 25°C 0.10M M M K1=8.09 B2=14.90 2000MOa (40552)3550
B(CuHLA)=27.05
B(CuLA)=18.92
Medium: NaOH. A: 2,2'-Dipicolylamine.

Cu++ gl diox/w 25°C 50% M M K1=8.30 B2=16.59 1999HEa (40553)3551
K(CuA+L)=3.28
Medium: 50% v/v dioxane/H2O, 0.1 M NaNO3. H2A: tetracycline.

Cu++ gl KNO3 25°C 0.10M U M K1=8.15 B2=14.97 1998SYa (40554)3552
B(CuAL)=11.63
B(CuH-1AL)=5.43
HA is 2,3,4-trihydroxybutanoic acid (threonic acid).

Cu++ gl KNO3 25°C 0.10M U HM 1997LZa (40555)3553
B(CuLA)=22.70
B(CuHLA)=28.22

HA=6-(2'-Hydroxybenzyl)-1,4,8,11-tetraazacyclotetradecane-5,7-dione. Data for 3'-methoxy-, 3',5'-dibromo- and 5'-bromo-2'-hydroxybenzyl- derivatives

Cu++ gl NaNO3 25°C 0.10M M M K1=8.02 B2=14.98 1997SKc (40556)3554
B(CuAL)=13.08

B(CuH-1AL)=5.42

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.20M U T HM K1=7.50 1996JLd (40557)3555
K(Cu(bpy)+L)=6.95

Data for 25-45 C. DH(K1)=-36.8 kJ mol⁻¹, DS(K1)=144 J K⁻¹ mol⁻¹;
DH(Cu(bpy)L)=-5.4, DS(Cu(bpy)L)=117.

Cu++ gl KNO3 25°C 0.10M M M K1=8.25 B2=15.27 1995SHc (40558)3556
K(Cu(ada)+L)=6.05

ada: N-(acetamido)-iminodiethanoic acid. K(H+L)=9.41.

Cu++ gl KNO3 30°C 0.10M U K1=8.11 1994RSa (40559)3557

Cu++ gl NaClO4 25°C 0.20M C K1=8.20 1993BAb (40560)3558

Cu++ gl NaClO4 25°C 0.20M U T M K1=8.91 B2=16.23 1993PPa (40561)3559
K(CuA+L)=7.71

A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Cu++ gl KCl 25°C 0.10M C TIH T K1=7.98 B2=14.76 1993SKa (40562)3560
IUPAC evaluation. DH(K1)=-22.8 kJ mol⁻¹, DH(B2)=-47 (T)

Cu++ vlt NaNO3 25°C 1.0M C M K1=8.15 B2=15.45 1992KMa (40563)3561
B(CuL(tartrate))=11.13

Method: polarography. Medium: pH 8.0.

Cu++ vlt NaNO3 25°C 1.0M C K1eff=8.15 1992KMa (40564)3562
B2eff=14.80

Method: differential pulse polarography. Medium: pH 8.0

Cu++ vlt NaClO4 25°C 1.0M C M B(Cu(gly)L)=15.66 1992SRa (40565)3563
B(Cu(leu)L)=15.86

Method: polarography.

Cu++ vlt NaClO4 25°C 1.0M C B2=15.25 1991MSd (40566)3564
K(Cu+HL)=1.48
K(Cu+2HL)=2.37

Method: polarography.

Cu++ vlt NaClO4 25°C 1.0M C M B(Cu(gly)L)=15.66 1991SRb (40567)3565
B(Cu(leu)L)=15.86

Method: polarography.

Cu++ gl KNO3 25°C 0.10M C H B(CuL(L-His))=17.93 1990BPa (40568)3566
B(CuHL(L-His))=21.51

B(CuL(D-His))=17.80

B(CuHL(D-His))=21.1

DH(CuL(L-His))=-65.9, DH(CuL(D-His))=-64.0 kJ mol⁻¹.

Cu++ ISE KNO3 25°C 0.16M C TIH K1=8.181 1990CSd (40569)3567

Method: Cu ion selective electrode. DH(K1)=-16.7 kJ mol⁻¹, DS(K1)=101.

J K-1 mol⁻¹. Data for 35 and 45 C and for 30% and 50% v/v EtOH/H2O.

Cu++ gl KNO3 37°C 0.15M C M K1=7.93 B2=14.68 1990KKc (40570)3568

B(CuL(imidazole))=11.75

B(CuL(imidazole)2)=14.59

B(CuL(imidazole)3)=16.31

Cu++ gl KNO3 37°C 0.15M U M K1=7.93 B2=14.62 1990KKc (40571)3569

B(CuAL)=11.75

B(CuA2L)=14.59

B(CuA3L)=16.31

A: imidazole

Cu++ gl diox/w 25°C 80% C I K1=10.45 B2=19.44 1989LTa (40572)3570

Medium: 80% dioxan/H2O, 0.1 M NaNO3. In 70%, K1=10.07, K2=8.72;

50%, K1=9.49, K2=8.12; 30%, K1=8.88, K2=7.52; 100% H2O, K1=8.15, K2=6.84

Cu++ gl NaNO3 25°C 0.10M U K1=7.98 B2=14.96 1989MPa (40573)3571

Cu++ gl NaClO4 25°C 0.10M C M K1=8.15 B2=14.97 1988CLa (40574)3572

B(CuL(acetylglycinate))=10.53

Cu++ cal NaClO4 25°C 0.10M C H 1988LGa (40575)3573

DH(K1)=-26.0 kJ mol⁻¹, DH(K2)=-27.3 kJ mol⁻¹. For HA=N-acetylglycine,

DH(B(CuAL))=-23.7 kJ mol⁻¹, DS(B(CuAL))=122 J K-1 mol⁻¹.

Cu++ gl KNO3 25°C 0.10M C M T K1=8.11 B2=14.96 1988ZZa (40576)3574

ternary complexes: B(CuHL(DOPA))=24.71; B(CuL(DOPA))=18.26;

B(CuL(Dopamine))=18.23

Cu++ gl KNO3 35°C 0.20M C M T K1=8.08 B2=14.88 1987PMa (40577)3575

Cu++ gl NaClO4 25°C 0.10M U M 1986CLb (40578)3576

K(Cu(bpy)+L)=8.00

K(Cu(phen)+L)=7.94

Cu++ ISE KNO3 25°C 0.10M U M K1=7.62 1986DVa (40579)3577

K(CuL+salicylate)=9.75

Cu++ gl NaClO4 37°C 0.15M U K1=7.84 B2=14.45 1985AMb (40580)3578

B(Cu(edta)L)=20.9

B(CuH(edta)L)=29.65

Cu++ gl KNO3 25°C 0.10M C M 1985Y0a (40581)3579

B(Cu(phen)L)=16.987

B(Cu(bpy)L)=15.911

B(CuAL)=17.240

B(CuBL)=17.162

B(CuCL)=11.955. A=2-Aminomethyl pyridine, B=Histamine, C=1,2-Diaminobenzene

Cu++ gl NaClO4 37°C 0.15M C M T K1=7.931 B2=14.595 1984BBa (40582)3580
B(CuHL)=10.282
B(CuHL2)=18.380
B(CuL(His))=16.925

Cu++ oth NaClO4 35°C 0.10M U M K1=8.02 B2=14.62 1984SYa (40583)3581
B(Cu(NTA)+L)=5.25

Method: paper electrophoresis

Cu++ gl NaCl 25°C 0.25M U T K1=7.979 B2=14.698 1983AOa (40584)3582
Data also for L-valine and (D+L)-valine

Cu++ vlt KNO3 30°C 0.30M C K1=8.2 B2=15.00 1983APb (40585)3583
Method: polarography. Medium pH 8.0.

Cu++ gl NaClO4 37°C 0.15M C K1=7.930 B2=14.60 1982BKc (40586)3584
B(CuHL)=10.282
B(CuHL2)=18.380

Cu++ gl NaClO4 30°C 0.10M C M T K1=8.05 B2=14.91 1980ASb (40587)3585
ternary complex with glycyl-sarcosine

Cu++ gl NaNO3 25°C 0.50M U K1=8.14 B2=14.99 1980MJa (40588)3586
B(CuH-1L)=0.43

Cu++ gl KNO3 30°C 1.00M U M T K1=8.00 B2=14.90 1980SGd (40589)3587
B(CuL(malonate))=12.00
B(CuL(oxalate))=12.60

Cu++ ISE diox/w 25°C 20% U K1=8.39 B2=15.52 1980YTa (40590)3588

Cu++ gl KNO3 25°C 0.10M C M 1979YSa (40591)3589
B(Cu(His)L)=17.35

Cu++ gl KNO3 25°C 0.10M U M T K1=8.05 B2=14.91 1977BPa (40592)3590
B(CuLA)=17.54
B(CuL(His))=17.60

HA=D-His

Cu++ gl KNO3 25°C 0.10M U M T K1=8.11 B2=14.79 1972INa (40593)3591
B(CuL(Ser))=14.84

Cu++ cal KNO3 25°C 0.10M C H 1971BPi (40594)3592
DH(B1)=-49.0 kJ mol⁻¹, For D-His: DH=-48.8, for rac-His: DH=-48.7

Cu++ gl KNO3 37°C 0.15M U T K1=7.95 B2=14.61 1969CPc (40595)3593
K(Cu+HL)=1.28
K(CuL+HL)=1.13

Cu++ sp NaClO4 ? 0.50M U M K1=8.06 B2=14.78 1969PPb (40596)3594
B(CuL(Gly))=16.00
B(CuLA)=16.38

H3A=sulfosalicylic acid

Cu++ oth NaClO4 ? 0.50M U M K1=8.06 B2=14.78 1969PPb (40597)3595
B(CuL(Gly))=15.63
B(CuL(Pro))=17.26

Method: circular dichroism. By polarimetry: B(CuL(Gly))=15.75;
B(CuL(Pro))=16.86

Cu++ oth NaClO4 ? 0.50M U M T K1=8.06 B2=14.78 1968PPa (40598)3596
B(CuL(Gly))=15.75

Method: polarimetry

Cu++ oth NaClO4 25°C 0.50M U M 1968RPc (40599)3597
B(CuL(Gly))=15.75
B(CuL(Pro))=16.86

Method: optical rotation. Ternary complexes with salicylic acid and NTA

Cu++ oth oth/un 25°C 0.50M U T K1=7.98 B2=14.71 1967RPd (40600)3598
Method: optical rotation.

Cu++ gl KCl 20°C 0.10M U T K1=8.19 B2=15.18 1966GIb (40601)3599

Cu++ sp oth/un 25°C ? U K1=7.93 B2=13.50 1957MSb (40602)3600

Cu++ sp oth/un 25°C 0.72M U K1=8.03 1957MSb (40603)3601

Cu++ vlt oth/un 25°C 0.15M U T H T B2=14.76 1956LWa (40604)3602
DH(B2)=-85.8 kJ mol⁻¹, DS=0 J K⁻¹ mol⁻¹. B2=14.51(30 C), 14.28(35 C)

Cu++ gl oth/un 25°C 0.02M U T K1=8.32 B2=15.42 1954REa (40605)3603

Cu++ gl oth/un 20°C 0.01M U B2=15.1 1950ALa (40606)3604

Cu++ gl oth/un 25°C 0.01M U K1=7.92 B2=14.44 1949MMa (40607)3605

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

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

Cu++ gl NaNO3 25°C 0.10M C T M K1=7.50 B2=12.52 1999KAa (40794)3606
K(CuA+L)=5.02

Data for 25-55C. H2A=dipicolinic acid. DH(K1)=-39.69 kJ mol⁻¹, DS(K1)=11.38 J K⁻¹ mol⁻¹, DH(CuAL)=-42.24 kJ mol⁻¹, DS(CuAL)=-44.92 J K⁻¹ mol⁻¹.

Cu++ gl KNO3 25°C 0.20M U T HM K1=8.10 1996JLd (40795)3607
K(Cu(bpy)+L)=7.80

Data for 25-45 C. DH(K1)=-8.8 kJ mol⁻¹, DS(K1)=185 J K⁻¹ mol⁻¹;
DH(Cu(bpy)L)=-8.8, DS(Cu(bpy)L)=179.

Cu++ gl KNO3 25°C 0.10M C M 1994CDb (40796)3608
B(CuAL)=14.80
B(CuHAL)=19.54
B(CuH2AL)=23.70

A:6-Deoxy-6-N-histamine-b-cyclodextrin. Data also for D-isomer

Cu++ gl KCl 25°C 0.10M C TIH R K1=8.12 B2=14.93 1993SKa (40797)3609
IUPAC evaluation. DH(K1)=-21.4 kJ mol⁻¹, DH(B2)=-50

Cu++ gl diox/w 25°C 80% C I K1=10.71 B2=19.86 1989LTa (40798)3610
Medium: 80% dioxan/H2O, 0.1 M NaNO3. In 70%, K1=10.12, K2=8.71;
50%, K1=9.51, K2=8.08; 30%, K1=8.91, K2=7.49; 100% H2O, K1=8.20, K2=6.86

Cu++ gl KCl 25°C 0.50M C M K1=8.155 B2=15.034 1986LEa (40799)3611
B(CuLA)=18.348, A=ethylenediamine-N-acetate

Cu++ sp NaCl 20°C 0.15M U M 1983Vda (40800)3612
K(CuA+L)=6.62

H2A=orotic acid (C5H4N2O4), 2,4-(1H,3H)-pyrimidinedione-6-carboxylic acid

Cu++ gl NaClO4 30°C 0.10M C M T K1=8.05 B2=14.85 1980ASb (40801)3613
ternary complex with glycyl-sarcosine

Cu++ gl KCl 25°C 0.20M C M 1977NGa (40802)3614
B(CuH-1LA)=4.97
B(CuH-1LB)=5.04
B(CuH-1LC)=4.65
K(CuH-1L2+A=CuH-1LA+L)=0.51

K(CuH-1L2+B=CuH-1LB+L)=0.41, K(CuH-1L2+C=CuH-1LC+L)=0.53

HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++ gl KCl 25°C 0.20M C 1976NGd (40803)3615
K(CuH-1A2+L=CuH-1AL+A)=4.97
K(CuH-1C2+L=CuH-1CL+C)=5.04
K(CuH-1D2+L=CuH-1DL+D)=4.65

HA is glycylglycine; HC is glycyl-DL-alpha-alanine;
HD is DL-alanyl-DL-alanine.

Cu++ gl KNO3 25°C 0.10M C T K1=8.12 B2=14.94 1975IPb (40804)3616

Cu++ gl KCl 25°C 0.20M U T K1=8.07 B2=14.82 1973GSb (40805)3617

Cu++ gl KCl 25°C 0.05M U M T K1=8.17 B2=15.04 1972GSc (40806)3618
B(CuL(Ser))=15.13
B(CuL(Thr))=15.22
K(Cu+L+HTyr)=15.32
B(CuL(Gly))=15.35

B(CuL(Ala))=15.33; B(CuLA)=15.30, A=2-aminobutanoic acid

Cu++ gl oth/un 25°C 0.02M U K1=8.68 B2=15.78 1954REa (40807)3619

C5H11NO2 HL (7220)

3-(Ethylamino)propanoic acid; C2H5.NH.CH2CH2COOH

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

Cu++ gl none 30°C 0 M K1=6.62 B2=11.69 1990NKb (40850)3620

Data also for 3-Butyl analogue: K1=6.30, K2=4.7; 3-Octyl: K1=6.34;

3-Decyl: K1=6.33

C5H11NO2 L (8054)

Alanine ethyl ester;

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

Cu++ gl NaNO3 25°C 0.10M M M 1997SKc (40864)3621

K(CuH-1A+L)=2.63

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.10M M M K1=8.24 B2=13.43 1995SHc (40865)3622

K(Cu(ada)+L)=4.46

ada: N-(acetamido)-iminodiethanoic acid. K(H+L)=7.31.

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

Cu++ gl alc/w 30°C 40% M M K1=9.10 B2=15.70 1988ARb (40881)3623

K(CuA+L)=8.25

B(CuAL)=17.75

Medium: 40% EtOH/H2O, 0.05 M KNO3. HA=acetylacetone

Cu++ sp NaCl 20°C 0.15M U M 1983VDa (40882)3624

K(CuL+A)=6.71

H2A=orotic acid (C5H4N2O4), 2,4-(1H,3H)-pyrimidinedione-6-carboxylic acid

Cu++ gl KNO3 25°C 0.10M M M K1=8.20 B2=15.10 1982LBa (40883)3625

Data for ternary complexes with polymer-grafted L-proline ligands.

Cu++ vlt KNO3 30°C 1.00M C M K1=8.00 B2=14.90 1980SGc (40884)3626

C5H11NO2 HL CAS 3183-21-9 (3044)
N-Isopropylglycine; (CH3)2.CH.NH.CH2.COOH

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

Cu++ gl NaClO4 25°C 0.10M U K1=6.70 B2=12.45 1954BCb (40903)3627

C5H11NO2 HL CAS 25303-14-4 (3043)
N-n-Propylglycine; CH3.CH2.CH2.NH.CH2.COOH

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

Cu++ gl NaClO4 25°C 0.10M U K1=7.25 B2=13.31 1954BCb (40906)3628

C5H11NO2S HL CAS 60116-17-8 (8308)
(3-Aminopropyl)thioethanoic acid;

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

Cu++ gl KNO3 25°C 0.50M U H K1=6.867 1983HTa (40909)3629
K(Cu+HL)=1.63
K(CuHL+HL)=1.11
K(CuL+H)=4.95
K(CuL+H)=4.95

By calorimetry: DH(K1)=-14.2 kJ mol⁻¹, DH(Cu+HL)=1.6, DH(CuHL+HL)=9.6.

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

Cu++ gl NaNO3 25°C 0.10M C M K1=7.73 B2=14.46 2004SSa (40979)3630
B(CuH-1L)=-0.97
B(CuHLA)=17.24
B(CuLA)=12.29
B(CuH-1LA)=4.92

HA is 6-aminopenicillanic acid.

Cu++ gl alc/w 25°C 40% C K1=8.94 B2=16.11 2003DKa (40980)3631
B(CuHL)=5.63

Medium: 40% v/v EtOH/H2O, 0.10 M NaCl.

Cu++ gl KNO3 25°C 0.10M C M K1=8.26 1999AAa (40981)3632
K(CuL+A)=3.80
B(CuLA)=12.06
K(CuL+B)=3.71
B(CuLB)=11.97

K(CuL+C)=3.42, B(CuLC)=11.68, K(CuL+D)=3.41, B(CuLD)=11.67.
HA=MOPSO, HB=MOPS, HC=DIPSO, HD=TAPSO.

Cu++ gl diox/w 25°C 50% M M K1=8.32 B2=16.37 1999HEa (40982)3633
K(CuA+L)=2.86

Medium: 50% v/v dioxane/H2O, 0.1 M NaNO3. H2A: tetracycline.

Cu++ gl KCl 25°C 0.20M C K1=7.76 B2=14.27 1998KMa (40983)3634

Cu++ gl NaNO3 25°C 0.10M M M K1=7.86 B2=14.60 1997SKc (40984)3635
B(CuAL)=12.75
B(CuH-1AL)=5.88

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.10M C R K1=7.85 B2=14.52 1995BEa (40985)3636
IUPAC evaluation

Cu++ gl KNO3 25°C 0.10M M M K1=8.29 B2=15.33 1995SHc (40986)3637
K(Cu(ada)+L)=6.04
ada: N-(acetamido)-iminodiethanoic acid. K(H+L)=9.12.

Cu++ gl NaNO3 25°C 0.10M U K1=7.88 B2=14.67 1995ZWa (40987)3638
Data for DL-methionine.

Cu++ gl KNO3 35°C 0.20M C M K1=7.70 B2=14.31 1994YVa (40988)3639
B(Cu(P207)L)=15.33
B(Cu(P3010)L)=14.13
B(Cu(atp)L)=12.57

Cu++ gl NaClO4 37°C 0.15M U K1=8.01 B2=15.03 1993NKb (40989)3640

Cu++ gl NaClO4 25°C 0.20M U T M K1=8.23 B2=15.48 1993PPa (40990)3641
K(CuA+L)=7.70
A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Cu++ gl KNO3 25°C 0.70M C K1=7.54 B2=13.86 1992AAc (40991)3642
K(Cu+OH+2L)=17.43

Cu++ gl KNO3 35°C 0.20M C M K1=7.70 1992YKa (40992)3643
B(Cu(edda)L)=18.60
K(Cu(edda)+L)=4.10

Cu++ gl NaCl 37°C 0.15M U M 1991HWa (40993)3644
B(CuLA)=12.85

H2A is 7-oxabicyclo-[2,2,1]-hept-5-ene-2,3-dicarboxylic acid

Cu++ gl KCl 25°C 0.50M M T H K1=11.60 1988MAa (40994)3645
Data for 25-40 C.

Cu++ gl KNO3 35°C 0.20M C M K1=7.70 B2=14.31 1987PMa (40995)3646

Cu++ gl KCl 25°C 0.20M C K1=7.76 B2=14.29 1987SPa (40996)3647

Cu++ gl NaClO4 37°C 0.15M C M K1=7.490 B2=13.696 1984BPd (40997)3648
B(CuL(His))=16.731

Cu++ gl KCl 25°C 0.20M U K1=7.55 B2=14.05 1982FGa (40998)3649

Cu++ gl KNO3 25°C 0.10M U M T K1=7.85 B2=14.53 1977BPa (40999)3650
B(CuL(His))=17.271

Cu++ gl KNO3 25°C 0.10M C T K1=7.85 B2=14.51 1975IPb (41000)3651

Cu++ oth KNO3 20°C 0.10M U K1=8.1 B2=14.80 1964J0a (41001)3652
Method: paper electrophoresis

Cu++ gl KNO3 25°C 0.10M U T K1=7.87 B2=14.72 1964LMa (41002)3653

Cu++ gl NaClO4 20°C 0.15M U K1=8.00 B2=15.23 1963HPa (41003)3654

Cu++ vlt oth/un 25°C 0.02M U B2=14.75 1954Lda (41004)3655
Medium:ca. 0.02 KH2PO4-K2HPO4

Cu++ gl oth/un 20°C 0.01M U B2=14.7 1950ALa (41005)3656

C5H11NO2S HL CAS 2442-39-9 (8307)
3-(2-Aminoethyl)thiopropionic acid;

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

Cu++ gl KNO3 25°C 0.50M U H K1=6.24 B2=10.75 1983HTa (41138)3657
K(Cu+HL)=1.19
K(CuL+H)=4.45

By calorimetry: DH(K1)=-15.4 kJ mol⁻¹, DH(K2)=-38.6, DH(Cu+HL)=1.8.

C5H11NO2S H2L Penicillamine CAS 52-66-4 (350)
DL-2-Amino-3-mercapto-3-methylbutanoic acid; (CH3)2C(SH)CH(NH2)COOH

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

Cu++ oth NaClO4 35°C 0.10M U K1=9.50 B2=16.90 1998GAc (41221)3658
Method: electrophoresis. Medium: 0.10 M HClO4, 0.01 M H2L

Cu++ gl KNO3 25°C 0.15M U K1=16.5 B2=21.70 1962KRa (41222)3659

Cu++ vlt oth/un 25°C 0.17M U B2=15.13 1961KPa (41223)3660
Medium: phosphate buffer

C5H11NO2S HL CAS 2629-59-6 (2461)
S-Ethyl-L-cysteine; H2N.CH(CH2.S.C2H5).COOH

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

Cu++ gl NaClO4 25°C 1.00M C I K1=7.80 B2=14.54 1981CPb (41288)3661
In 2.0 M NaClO4: K1=8.02, B2=15.10

C5H11NO2Se HL CAS 1464-42-2 (1900)
2-Amino-4-(methylseleno)butanoic acid; CH3.Se.CH2.CH2.CH(NH2).COOH

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

Cu++ gl NaNO3 25°C 0.10M U K1=7.77 B2=14.50 1995ZWa (41301)3662
Data for DL-selenomethionine.

C5H11NO3 HL CAS 93715-84-5 (3626)
N-(2'-Hydroxyethyl)-3-aminopropanoic acid; H2N.CH2.CH(CH2.CH2.OH).COOH

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

Cu++ gl KCl 20°C 0.10M U K1=7.40 B2=12.25 1964ULa (41307)3663
K(CuH-1L+H)=7.15

C5H11NO3S HL CAS 6367-98-2 (3634)
S-(2'-Hydroxyethyl)-L-cysteine; H2N.CH(CH2.S.CH2.CH2.OH).COOH

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

Cu++ gl KNO3 20°C 0.10M U K1=7.64 B2=14.15 1968HLA (41314)3664

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

Cu++ EMF non-aq 25°C 100% U B2=18.2 1987USa (41317)3665
Medium: DMF, 0.1 M LiClO4

Cu++ ISE non-aq 25°C 100% U K1=12.3 B2=25.0 1984LSb (41318)3666
Medium: DMSO, 0.1 M NaClO4; Ag-electrode. In MeOH: K1=11.7, B2=23.9

Cu++ vlt non-aq 20°C 100% U M 1973CLa (41319)3667

K(CuL2+py)=-0.02
K(CuL2+A)=0.46
K(CuL2+B)=-0.30
K(CuL2+C)<-0.5

Medium: MeCN, 0.1 M Et4NClO4. Method: voltammetry
A=4-ethylpyridine, B=2,4-lutidine, C=2,6-lutidine

Cu++ sp alc/w 25°C 75% U B2=8.80 1970PNa (41320)3668
Medium: 75% MeOH, 0.3 M NaClO4

Cu++ sp non-aq ? 100% U M 1968SRg (41321)3669
K(Cu(HA)2+HL=CuHAL+H2A)=2.5

$K(\text{CuHAL}+\text{HL}=\text{CuL}_2+\text{H}_2\text{A})=2.1$
 $K(\text{Cu}(\text{HA})_2+2\text{HL}=\text{CuL}_2+2\text{H}_2\text{A})=4.6$
 $K(\text{Cu}(\text{HA})_2+\text{CuL}_2)=0.35$

Medium: CCl4. H2A=dithizone

 Cu++ sp alc/w 20°C 75% U K1=14.9 B2=28.8 1956JAb (41322)3670

 C5H11N2O7P H3L CAS 6665-42-5 (3636)
 O-Phosphorylserylglycine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	ISE	KNO3	25°C	0.15M	U			K1=7.89 B2=11.6 B(CuHL)=11.58 K(Cu+HL+L)=18.0 K(CuH-1L+H)=5.79	19660Sb (41380)	3671

Cu/Hg and glass electrodes

 C5H11N3O2 H2L CAS 15855-91-1 (4328)
 Glycyl-beta-alanineamide; H2N.CH2.CO.NH.CH2.CH2.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U			K(Cu+H2L)=5.22 K(CuHL+H)=5.42 K(CuL+H)=8.99	1973YNb (41385)	3672

 C5H11N3O2 L CAS 121532-10-3 (8092)
 N-(3-Aminopropyl)oxamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C			B(CuH-1L)=0.97 B(CuH-2L)=-8.09 B(CuH-3L)=-19.00 B(Cu2H-2L)=-1.77	1996CHd (41387)	3673

B(Cu3H-4L2)=-5.3, B(Cu3H-5L2)=-13.65

 C5H11N3O2 L (7334)
 N-2-Aminoethyl-2-hydroxyiminopropanamide; CH3.C(:NOH).CONH.CH2CH2NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C			K1=10.01 B2=13.4 B(CuHL)=15.91 B(CuH-1L)=-0.84 B(CuHL2)=22.7?	19950Sa (41389)	3674

N-Methyl analogue: K1=7.99, B(CuH-1L)=0.78, B(CuH-1L2)=3.81, B(CuH-2L2)=-6.67

B(Cu2H-1L2)=11.32

C5H11N3O2 H2L CAS 101854-68-6 (4327)
beta-Alanylglycineamide; H2N.CH2.CH2.CO.NH.CH2.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U				1973YNb (41391)	3675

K(Cu+H2L)=5.16

K(CuHL+H)=5.39

C5H11O8P H2L Ribose-5-phosph CAS 4300-28-1 (2756)
Ribose-5-phosphoric acid, Ribofuranoside 5 Phosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	mixed	25°C	30%	M			K1=3.769	1993BCg (41405)	3676

Medium: 0.1 M NaNO3 in 30% Dioxane/H2O (v/v)

For 0.1 M NaNO3 in 50% Dioxane/H2O (v/v) K1=4.376

Cu++	gl	NaNO3	25°C	0.10M	M			K1=2.962	1993CBb (41406)	3677
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K(Cu(bpy)+L)=3.010

Cu++	gl	NaNO3	25°C	0.10M	U	I		K1=2.96	1992MSd (41407)	3678
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Also data for 20-50% v/v dioxane/H2O, 0.10 M NaNO3.

In 50% dioxane/H2O, 0.10 M NaNO3: K1=4.38.

Cu++	gl	diox/w	25°C	30%	C	I		K1=3.77	1989LCb (41408)	3679
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Medium: 30% dioxan/H2O, 0.1 M NaNO3. In 0%, K1=2.96; 20%, K1=3.45;

40%, K1=4.09; 50%, K1=4.38

Cu++	gl	NaNO3	25°C	0.10M	C	M		K1=2.96	1989MSd (41409)	3680
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K(Cu(bpy)+L)=3.01; K(Cu(phen)+L)=3.00

Cu++	gl	NaNO3	25°C	0.10M	C			K1=2.96	1988MSa (41410)	3681
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C5H12NO3P H2L CAS 67550-64-5 (6434)
1-Aminocyclopentylphosphonic acid; C5H8(NH2)(PO3H2)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	C			K1=8.46 B2=15.56	1991KJa (41428)	3682

B(CuHL)=13.05

B(CuH-1L2)=3.81

C5H12NO3P H2L PYPH (223)
Piperidine-2-phosphonic acid; C5H10N.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++ gl KNO3 24°C 0.10M U K1=8.76 1989YKa (41430)3683
K(Cu+HL)=2.85

C5H12NO4P H2L (6435)
(1-Amino-2-carboxyethyl)ethylphosphinic acid; HOOC.CH2.CH(NH2).PO(C2H5)(OH)

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

Cu++ gl KCl 25°C 0.20M C K1=6.53 B2=11.62 1991KJa (41435)3684
B(CuH-1L2)=1.68

C5H12NO4P HL CAS 51276-47-2 (5704)
2-Amino-4-(methylhydroxyphosphoryl)butanoic acid;

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

Cu++ gl NaClO4 23°C 0.10M U K1=7.19 1990YTa (41437)3685

Cu++ gl NaCl 25°C 0.10M U 1989YTa (41438)3686

B(Cu2L)=7.19

B(Cu3L)=9.11

C5H12NO6P H3L (6968)
N-(Phosphonomethyl)threonine; H2O3P.CH2.NH.CH(CH(OH)CH3)COOH

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

Cu++ gl KCl 25°C 0.20M C K1=11.51 B2=16.08 1994JKa (41448)3687

B(CuHL)=15.30

B(CuH-1L)=2.63

B(CuH2L2)=28.69

B(CuHL2)=23.90

B(CuH-1L2)=6.26, B(CuH-2L2)=-4.24.

C5H12N2 L CAS 38932-70-6 (4301)
1,1-Di(aminomethyl)cyclopropane; C3H4(CH2.NH2)2

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

Cu++ gl oth/un 25°C U K1=10.12 B2=17.76 1972NBa (41450)3688

C5H12N2 L (4652)
2-Aminomethylpyrrolidine;

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

Cu++ gl KNO3 25°C 1.00M U M B2=18.81 1989KUa (41453)3689

B(CuL(D-Pro))=17.90

B(CuL(L-Pro))=18.3

Ligand as S-isomer. Data also for other enantioselective ternary ligands

 C5H12N2 L CAS 171868-16-9 (7832)
 cis-1,2-Cyclopentanediamine;

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

 Cu++ gl KCl 25°C 0.10M C K1=10.59 B2=19.75 2001KSa (41455)3690
 For the trans-isomer: K1=8.58, B2=15.81. B(CuH-1L2)=8.97

 C5H12N2O HL CAS 93099-93-5 (3045)
 3-Amino-3-methylbutan-2-one oxime; CH3.C(NH2)(CH3).C(:NOH).CH3

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

 Cu++ gl NaClO4 25°C 0.02M U I 1982PNa (41465)3691
 K(Cu+HL)=8.03
 In 50% dioxan/H2O: K(Cu+HL)=8.00

 Cu++ gl oth/un 24°C 0.27M U 1958MUa (41466)3692
 K(Cu+2HL=Cu(HL)2)=11.9
 K(Cu(HL)2=H+CuHL2)=-4.1
 K(CuHL2=H+CuL2)=-9.9

 C5H12N2O L (3046)
 Sarcosine dimethylamide; CH3.NH.CH2.CO.N(CH3)2

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

 Cu++ gl oth/un 25°C 0.01M U K1=5.60 B2=10.54 1959DLc (41471)3693

C5H12N2O L Valinamide CAS 3474-22-1 (5977)
 Valinamide; NH2.CH(CH(CH3)2).CO.NH2

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

 Cu++ gl KCl 25°C 0.10M C K1=4.55 B2= 8.14 1989DFa (41482)3694
 B(CuH-1L)=-1.99
 B(CuH-1L2)=1.82
 B(CuH-2L2)=-5.66

 Cu++ gl KCl 25°C 0.50M C K1=4.55 B2=8.15 1988DFb (41483)3695
 B(CuH-1L)=-1.99
 B(CuH-1L2)=1.82
 B(CuH-2L2)=-5.66

 C5H12N2OS2 HL CAS 54887-93-3 (8360)
 N-(2-Aminoethyl)-N-2-(hydroxyethyl)dithiocarbamic acid;

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

Cu++ sp KNO3 20°C 0.10M C 1978SHa (41485)3696
K(Cu+2HL=Cu(HL)2)=18.6

EDTA used as a competitive ligand.

C5H12N2O2 HL Ornithine CAS 1069-31-4 (46)
2,5-Diaminopentanoic acid; H2N.CH2.CH2.CH2.CH(NH2)COOH

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

Cu++ gl NaNO3 25°C 0.10M C M K1=11.72 B2=15.79 2004SSa (41515)3697
B(CuH-1L)=1.75
B(CuHL)=17.89
B(CuLA)=16.69
B(CuHLA)=22.57

HA is 6-aminopenicillanic acid.

Cu++ gl NaNO3 25°C 0.10M M M K1=11.9 B2=16.30 2002SKa (41516)3698
B(CuHL)=18.00
B(CuAL)=18.28
B(CuAHL)=27.39

A is picolylamine

Cu++ gl KNO3 25°C 0.10M C H B2=15.53 2000CCc (41517)3699
B(CuHL)=17.81
B(CuH2L2)=34.48
B(CuHL2)=25.50
K(Cu+HL)=7.32

Calorimetry: DH(B2)=-55.3 kJ mol⁻¹, DS(B2)=112 J K⁻¹ mol⁻¹; DH(CuHL)=-73.6
DS=94; DH(CuH2L2)=-151, DS=154; DH(CuHL2)=-107.2, DS=128. Additional data.

Cu++ gl KCl 30°C 0.16M U I K1=13.01 B2=15.42 1997BSb (41518)3700
B(CuHL)=18.21
B(CuH2L2)=34.49
B(CuH4L2)=42.62

Also data for 5.8-36.8% w/w urea/H2O.

Cu++ gl NaClO4 37°C 0.15M U M 1997NAb (41519)3701
B(CuHAL)=24.86

H2A is cysteic acid.

Cu++ gl NaNO3 25°C 0.10M M M K1=12.25 B2=15.62 1997SKc (41520)3702
B(CuAL)=14.86
B(CuH-1AL)=5.79
B(CuHL)=18.04

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.10M M M K1=12.97 B2=17.34 1995SHc (41521)3703
K(Cu(ada)+L)=4.99
B(CuHL)=18.34

ada: N-(acetamido)-iminodiethanoic acid. K(H+L)=10.43, K(2H+L)=19.21.

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-----
Cu++      gl  NaClO4  37°C  0.15M  U    M    1990NTb (41522)3704
          B(Cu(glu)L)=16.70
          K(Cu(glu)+L)=8.18
-----
Cu++      gl  NaClO4  37°C  0.15M  U    M    1987Snc (41523)3705
          B(CuHL(Asn))=24.72
          B(CuL(Asn))=15.12
          K(Cu(Asn)+H+L)=16.83
          K(CuHL+Asn)=7.07
-----
Cu++      gl  NaClO4  37°C  0.15M  U    M    1985Nac (41524)3706
          B(CuH2L2)=34.32
          B(CuHL)=17.67
          B(CuHL2)=26.12
B(CuHL(bpy))=24.58, B(CuL(bpy))=17.34
-----
Cu++      gl  KNO3    25°C  0.10M  C    M    K1=10.53 B2=15.60 1984DAb (41525)3707
          B(CuHL)=17.80
          B(CuHL2)=25.38
          B(CuH2L2)=34.45
          B(CuHLA)=27.27
H2A=Noradrenaline
-----
Cu++      gl  NaClO4  37°C  0.15M  U    M    1982NSd (41526)3708
          B(Cu(imidazole)HL)=21.43
          B(Cu(imidazole)L)=14.37
          B(Cu(imidazole)2HL)=24.98
-----
Cu++      gl  NaClO4  37°C  0.15M  U    M    1982NVb (41527)3709
          B(CuH2(histamine)L)=31.46
          B(CuH(histamine)L)=26.87
          B(Cu(histamine)L)=18.91
-----
Cu++      gl  NaClO4  37°C  0.15M  U    M    1981NSa (41528)3710
          B(CuHL)=17.67
          B(CuHL2)=26.12
          B(CuH2L2)=34.32
-----
Cu++      gl  KNO3    25°C  0.10M  U    M    B2=15.71 1978SYa (41529)3711
          B(CuHL)=17.95
          B(CuH2L2)=34.65
          B(CuHL2)=25.73
          B(CuH(Aspartate)L)=25.65
B(Cu(Asp)L) = 15.29
-----
Cu++      gl  KNO3    25°C  0.10M  U    M    1977BPa (41530)3712
          B(CuL(His))=17.24
          B(CuHLA)=27.37
          B(CuHL(His))=27.49

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HA=D-His

Cu++ gl KCl 25°C 0.20M C M 1977NGa (41531)3713
B(CuH-1LA)=4.89
B(CuH-1LB)=4.80
B(CuH-1LC)=4.55
K(CuH-1L2+A=CuH-1LA+L)=0.43
K(CuH-1L2+B=CuH-1LB+L)=0.17, K(CuH-1L2+C=CuH-1LC+L)=0.42
HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++ gl KNO3 25°C 0.10M C 1976BPb (41532)3714
B(CuHL)=17.81
B(CuH2L2)=34.45

Cu++ gl KNO3 25°C 0.10M U I K1=11.3 B2=15.92 1970CMc (41533)3715
K(Cu+HL)=7.87
K(CuHL+HL)=6.18
I=1.0 M, K(Cu+HL)=7.17, K(CuHL+HL)=6.14

Cu++ gl KNO3 25°C 0.10M U 1970CMc (41534)3716
K(CuL+H)=7.1
K(CuHL2+H)=8.53

Cu++ gl oth/un 20°C 0.01M U B2=13.0 1952ALa (41535)3717

C5H12N2O2 HL CAS 36207-49-5 (834)
2-Amino-N-hydroxypentanamide; CH3.CH2.CH2.CH(NH2).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.50M	C			K1=10.609 B2=19.70 B(CuH-1L2)=9.838 B(Cu4L5)=62.616	1986LEb (41588)	3718

C5H12N2O2S		HL				Met-hydroxamic		CAS 19253-87-3 (5992)		
2-Amino-4-(methylthio)butanehydroxamic acid, Methionine hydrox.a.;										
CH3.S.CH2.CH2.CH(NH2).CO.NHOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaCl	25°C	0.15M	M	M		K1=10.71 B2=20.13 B(Cu3L4)=49.44 B(CuLA)=18.31 B(CuH-1LA)=10.03 B(CuLA2)=21.44	2003MYa (41597)	3719
B(CuH-1L2A)=12.81. HA is glycylglycine.										

Cu++ gl KCl 25°C 0.20M C M K1=10.35 B2=19.02 2001KBa (41598)3720
B(CuH-1L2)=9.55
B(Cu2H-1L2)=19.92

B(CuHL(dien))=27.74

B(CuL(dien))=20.57

K(Cu(dien)+L)=4.56

Cu++ gl KCl 25°C 0.20M C K1=10.48 B2=19.41 19960Ga (41599)3721
B(CuH-1L2)=9.85
B(Cu2H-1L2)=20.20

Cu++ gl NaCl 37°C 0.15M M M K1=10.78 B2=20.06 1992MMd (41600)3722
B(Cu3L4)=49.46

B(CuNiL2)=22.77, B(CuNiH-2L2)=10.94, B(CuNiH-3L3)=11.44.

B(CuZnL2)=21.90, B(CuZnH-1L2)=16.72, B(CuZnH-2L2)=10.01, B(CuZnH-3L3)=9.57

C5H12N2O2S HL (1737)
3-(2-Aminoethyl)thio-L-alanine; H2N.CH2.CH2.S.CH2.CH(NH2)COOH

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

Cu++ gl KNO3 25°C 0.10M C 1974NBb (41610)3723

K(Cu+HL)=7.22

K(CuHL+HL)=6.14

K(CuHL=CuL+H)=-6.30

K(CuHL2=CuL2+H)=-9.27

Cu++ gl KNO3 20°C 0.10M U K1=7.11 B2=13.36 1968HLA (41611)3724

C5H12N2O2S2 HL CAS 22801-37-2 (3637)

L-2-Amino-3-(2'-aminoethylthio)propanoic acid;

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

Cu++ gl NaClO4 20°C 0.15M U K1=7.08 B2=13.80 1963HPa (41616)3725

C5H12N2O3S HL (3638)

2-Amino-3-(2'-aminoethylsulfinyl)propanoic acid;

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

Cu++ gl KNO3 20°C 0.10M U K1=6.56 B2=12.00 1968HLA (41618)3726

C5H12N2O4S HL CAS 34234-57-6 (3639)

2-Amino-3-(2'-aminoethylsulfonyl)propanoic acid;

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

Cu++ gl KNO3 20°C 0.10M U K1=6.30 B2=11.62 1968HLA (41620)3727

C5H12N4O3 HL Canavanine CAS 543-38-4 (5565)

Canavanine; H2N.CH(COOH).CH2.CH2.O.NH.C(:NH)-NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	NaNO3	25°C	0.10M	U			K1=8.85 B2=14.15	1989APb (41637)	3728

C5H12O5		L		Arabitol				CAS 488-82-4	(5403)	
Arabitol; HO.CH2.HOCH.HCOH.HCOH.CH2.OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	ISE	KNO3	25°C	0.70M	U			K1=0.09	1986HAe (41673)	3729

C5H12O5		L		Ribitol				CAS 488-81-3	(3009)	
Ribitol, Adonitol; HO.CH2.HCOH.HCOH.HCOH.CH2.OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	ISE	KNO3	25°C	0.70M	U			K1=-0.23	1986HAe (41677)	3730

C5H12O5		L		Xylitol				CAS 87-99-0	(2139)	
Xylitol; HO.CH2.HCOH.HOCH.HCOH.CH2.OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	ISE	KNO3	25°C	0.70M	U			K1=-0.17	1986HAe (41681)	3731

C5H13NO		L						CAS 108-16-7	(947)	
1-Dimethylaminopropan-2-ol; CH3.CH(OH).CH2.N(CH3)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	vlt	KNO3	25°C	1.0M	U				1994KNa (41721)	3732
K(Cu(OH)2L2)=20.33										
Method: Pseudopolarography with differential pulse anodic stripping voltam.										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	vlt	KNO3	25°C	0.01M	U				1990KNa (41722)	3733
B(CuL2(OH)2)=18.24										

C5H13NO		L						CAS 2508-29-4	(3627)	
5-Amino-1-pentanol; H2N(CH2)5.OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	vlt	NaClO4	20°C	0.70M	C			K1=6.2	1991CSa (41725)	3734
Method: differential pulse polarography.										

C5H13NO2		L						CAS 35152-18-2	(4334)	
1,1'-Imino-2-ethanol-3-propanol; HO.CH2.CH2.NH.CH2.CH2.CH2.OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++ vlt KNO3 25°C 0.50M U 1971HSa (41729)3735

B(CuL(OH)2)=18.4
B(CuL(OH)3)=19.3
B(CuL2(OH)2)=19.4

C5H13NO2 L CAS 105-59-9 (1070)
N-Methyldiethanolamine; CH3.N(CH2.CH2.OH)2

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

Cu++ sp none 25°C 0.0 U K1=5.22 B2=8.19 1986SAa (41739)3736

Cu++ gl oth/un 25°C 0.10M U K1=4.9 B2=9.10 1965DOb (41740)3737
K3=3.4
K4=2.0

C5H13NO4 L (7116)
(2R,3S,4S)-5-Aminopentane-1,2,3,4-tetrol; HOCH2CH(OH)CH(OH)CH(OH)CH2NH2

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

Cu++ gl KNO3 25°C 0.10M C 1995JKb (41747)3738

B(Cu2H-2L2)=1.02
B(Cu2H-3L2)=-5.69
B(Cu2H-4L2)=-14.14
B(Cu2H-5L2)=-23.08

Data also for the (2R,3R,4R)- isomer

C5H13NO7P2 H4L CAS 32545-75-8 (6890)
N-Methylenedi(phosphonic acid)tetrahydrooxazine; OC4H8N.CH(P03H2)2

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

Cu++ gl KCl 25°C 0.10M M K1=11.18 1978GMf (41761)3739
K(Cu+HL)=9.12

C5H13NO8P2 H4L (3714)
N-(2'-Carboxyethyl)iminobis(methylenephosphonic acid)

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

Cu++ gl KNO3 25°C 0.10M U K1=13.0 1965WRa (41767)3740

K(Cu+HL)=7.2
K(CuL+H)=4.71

C5H13N3 L (1866)
cis-3,5-Diaminopiperidine; C5H9N(NH2)2

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

Cu++ gl KCl 25°C 0.10M C K1=11.42 B2=20.14 2000PSb (41790)3741

C5H13N3O HL (6983)
3-(Dimethylamino)propanamidoxime; (CH3)2N.CH2.CH2.C(:NOH)NH2

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

Cu++ gl NaCl 25°C 1.00M C 19920Sb (41797)3742
K(Cu+HL)=5.61
B(-7,5,4)=-0.26
B(-8,5,4)=-5.48

B(p,q,r); pH+qCu+r(HL)=Hp(Cu)q(HL)r

C5H13N5O L CAS 53644-71-4 (3048)
1-(2-Methoxyethyl)biguanide; CH3O.CH2.CH2.NH.C(:NH).NH.C(:NH).NH2

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

Cu++ sp KCl 30°C 0.20M U K1=9.77 B2=16.27 1960SRa (41800)3743

C5H13N5O HL (3047)
1-(3-Hydroxypropyl)biguanide; HO.CH2.CH2.CH2.NH.C(:NH).NH.C(:NH).NH2

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

Cu++ sp KCl 30°C 0.20M U K1=9.57 B2=16.99 1960SRa (41803)3744

C5H14NO2P HL (7265)
Aminomethyl(butylphosphinic acid); H2NCH2PO(OH)C4H9

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

Cu++ gl KNO3 25°C 0.10M C K1=5.37 B2=6.27 1996RLa (41815)3745
B(CuH-1L)=-4.95

C5H14NO3P H2L CAS 13138-37-9 (1985)
1-Aminopentylphosphonic acid; CH3.(CH2)3.CH(NH2).PO3H2

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

Cu++ gl KNO3 25°C 0.10M U K1=8.97 B2=16.27 1979WNb (41821)3746
B(CuHL)=13.25
B(CuHL2)=21.60
B(CuH2L2)=25.9
B(CuH-1L)=0.8

Cu++ gl KNO3 25°C 0.10M U K1=10.22 B2=16.12 1972WNb (41822)3747
B(CuHL)=13.34
B(CuH2L2)=26.72
B(CuHL2)=21.75

 C5H14NO3P H2L CAS 82101-93-7 (544)
 2-(2-Dimethylaminopropyl)phosphonic acid; (CH3)2N.C(CH3)2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U			K1=8.27 B(CuHL)=14.70 K(Cu+L=Cu(OH)L+H)=0.91 B(CuH2L2)=28.92	1981WNa (41825)	3748

 C5H14NO3P H2L CAS 72696-97-0 (1990)
 Diethylaminomethylphosphonic acid; (C2H5)2N.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U			K1=7.46 B(CuHL)=14.12 B(CuH2L2)=27.56 B(CuH-1L)=-0.02	1979WNb (41830)	3749

 C5H14NO5P H2L CAS 5994-60-5 (1302)
 N,N'-Bis(2-hydroxyethyl)aminomethylphosphonic acid; (HO.CH2.CH2)2N.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	20°C	0.10M	U			K1=9.52 K(Cu+HL)=3.43 K(CuL+OH)=6.92	1970KMa (41841)	3750

 C5H14N2 L CAS 462-94-2 (359)
 1,5-Diaminopentane; H2N.(CH2)5.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	20°C	0.10M	C	M		K1=8.62 B2=13.40 B(CuHL)=15.83 B(CuH-1L)=0.06 B(Cu(dien)L)=20.42 B(Cu(3,3-tri)L)=16.64	1997LBc (41859)	3751

 C5H14N2 L CAS 7328-91-8 (3029)
 2,2-Dimethyl-1,3-diaminopropane; H2N.CH2.C(CH3)2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	oth/un	25°C		U			K1=9.92 B2=17.22	1972NBa (41867)	3752
Cu++	gl	KNO3	30°C	1.0M	U	T H		K1=9.94 B2=17.39 DH(K1)=-50.2 kJ mol ⁻¹ , DS=29; DH(K2)=-50.2, DS=-29. 0 C: K1=10.95, K2=8.25;	1952HAa (41868)	3753

50 C: K1=9.41, K2=6.86

Cu++ gl KCl 30°C 1.0M U K1=9.94 B2=17.39 1952HAa (41869)3754

C5H14N2 L CAS 111-33-1 (938)
2,6-Diazaheptane, N,N'-Dimethyl-1,3-diaminopropane; CH3.NH.CH2.CH2.CH2.NH.CH3

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

Cu++ gl KCl 25°C 0.50M U K1=8.38 1974KZa (41879)3755

C5H14N2 (4303)
N,N,N'-Trimethyl-1,2-diaminoethane; L

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

Cu++ gl KNO3 25°C 0.10M C M K1=8.738 B2=13.20 2002Y0a (41884)3756
B(CuH-1L)=0.984
B(CuH-2L)=-9.387
B(CuAL)=14.268
B(CuH-1AL)=6.060

B(CuHBL)=24.614, B(CuBL)=16.438, B(CuH-1BL)=6.687; B(CuCL)=14.485,
B(CuH-1CL)=6.261. HA is gly-gly, H2B is gly-L-tyr, HC is gly-L-trp.

C5H14N2 L CAS 19522-62-7 (3031)
N-Isopropylethylenediamine; (CH3)2.CH2.NH.CH2.CH2.NH2

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

Cu++ gl KNO3 25°C 0.50M U T K1=9.07 B2=16.52 1952BMa (41895)3757
0 C: K1=9.46, K2=8.00

Cu++ gl KNO3 var 0.50M U H 1952BMb (41896)3758
0-25 C. At 0 C: DH(K1)=-24.2 kJ mol⁻¹, DS=92.0 J K⁻¹ mol⁻¹; DH(K2)=-34.3,
DS=29.3

C5H14N2 L CAS 111-39-7 (3030)
N-n-Propylethylenediamine; CH3.CH2.CH2.NH.CH2.CH2.NH2

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

Cu++ gl KNO3 25°C 0.50M U T K1=9.98 B2=18.14 1952BMa (41901)3759
0 C: K1=10.49, K2=8.70

Cu++ gl KNO3 var 0.50M U H 1952BMb (41902)3760
0-25 C. At 0 C: DH(K1)=-31.8 kJ mol⁻¹, DS=83.6 J K⁻¹ mol⁻¹; DH(K2)=-33.4, DS=46

C5H14N2O L CAS 52319-87-1 (3628)
N-(2'-Hydroxyethyl)-1,3-diaminopropane; H2N.CH2.CH2.CH2.NH.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	oth/un	25°C	0.0	U	I			1964NMa (41906)	3761
$K(\text{CuOHL}=\text{Cu}_2(\text{OH})_2\text{L}_2)=2.59$ $K(\text{Cu}(\text{OH})_2\text{L}+\text{H})=10.17$ $K(\text{Cu}+\text{OH}+\text{L})=17.35$										
In I M NaClO4: $K(\text{CuOHL}+\text{H})=7.07+1.018\text{SQRTI}/(1+\text{SQRTI})$, $K(\text{Cu}_2(\text{OH})_2\text{L}_2+2\text{H})=11.55+1.018\text{SQRTI}/(1+\text{SQRTI})$										

Cu++	gl	NaClO4	25°C	var	U	I			1963NMa (41907)	3762
$K_1=10.42+0.690\text{I}-0.252\text{I}^{(3/2)}+0.055\text{I}^{(2)}$ ***** C5H14N2O L CAS 36753-44-3 (3050) N-(2-Hydroxypropyl)ethylenediamine; H2N.CH2.CH2.NH.CH2.CH(OH).CH3										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	oth/un	25°C	0.50M	U			K1=10.40 B2=17.80	1960HDa (41912)	3763
***** C5H14N2S L CAS 56973-49-0 (1855) 1,6-Diamino-3-thiahexane; H2N.CH2.CH2.S.CH2.CH2.CH2.NH2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	U			K1=10.035 B2=12.90	1979HGb (41921)	3764
$K(\text{CuL}+\text{H})=4.77$ $K(\text{CuL}_2+\text{H})=9.7$ $K(\text{CuL}+\text{OH})=4.60$										

Cu++	cal	KNO3	25°C	0.50M	C	H			1979HGd (41922)	3765
$\text{DH}(\text{K}_1)=-59.0 \text{ kJ mol}^{-1}$, $\text{DS}(\text{K}_1)=-5.8 \text{ J K}^{-1} \text{ mol}^{-1}$; $\text{DH}(\text{K}_2)=-32.7$, $\text{DS}(\text{K}_2)=-54$; $\text{DH}(\text{CuL}+\text{OH})=-13.4$, $\text{DS}=43$; $\text{DH}(\text{Cu}+\text{HL})=-29.3$, $\text{DS}=-9$; $\text{DH}(\text{CuL}+\text{HL})=-31.8$, $\text{DS}=-59$. ***** C5H14N2S L CAS 53204-43-6 (1853) 1-Amino-3-aza-6-thiaheptane; H2N.CH2.CH2.NH.CH2.CH2.S.CH3										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	C	H		K1=11.377 B2=17.68	1977HGa (41928)	3766
$\text{DH}(\text{K}_1)=-58.5 \text{ kJ mol}^{-1}$, $\text{DS}(\text{K}_1)=21.3 \text{ J K}^{-1} \text{ mol}^{-1}$ $\text{DH}(\text{K}_2)=-45.3 \text{ kJ mol}^{-1}$ $\text{DS}(\text{K}_2)=-31.4 \text{ J K}^{-1} \text{ mol}^{-1}$ ***** C5H14N2S L (1299) 2-Aza-5-thia-7-amino-heptane; CH3.NH.(CH2)2.S.(CH2)2.NH2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	cal	KNO3	25°C	0.50M	C	H		K1=8.619	1983HHc (41932)	3767
$\text{DH}(\text{K}_1)=-41.3 \text{ kJ mol}^{-1}$.										

Cu++ gl KNO3 25°C 0.50M U K1=8.619 B2=12.58 1981HGa (41933)3768
K(CuL+HL)=2.5
K(2CuL+2OH=Cu2L2(OH)2)=14.66

C5H14O7P2 H4L (7243)
1-Hydroxypentane-1,1-diphosphonic acid; HO.C(PO(OH)2)2.(CH2)3CH3

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

Cu++ gl KCl 25°C 0.20M C K1=12.77 B2=16.96 1996DJa (41937)3769
B(CuH2L)=21.80
B(CuHL)=17.83
B(CuH-1L)=2.54
B(CuH-2L)=-7.68

B(Cu2H-1L)=12.76.

C5H15NO7P2 H4L AMOK CAS 63132-39-8 (1350)
1-Hydroxy-3-N,N-dimethylaminopropane-1,1-diphosphonic acid;
Me2N.CH2.CH2.C(OH)(PO3H2)2

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

Cu++ gl KCl 25°C 0.10M M K1=12.95 1978KMa (41947)3770
K(Cu+HL)=10.76
K(Cu+H2L)=6.00

C5H15NO7P2 H4L (1348)
1-Hydroxy-3-N-ethylaminopropylidenediphosphonic acid;
CH3.CH2.NH.CH2.CH2.C(OH)(PO3H2)2

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

Cu++ gl KCl 25°C 0.10M M K1=13.73 1978KMa (41960)3771
K(Cu+HL)=11.67
K(Cu+H2L)=6.65

C5H15N2O3P H2L (6962)
1,5-Diaminopentane-1-phosphonic acid;

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

Cu++ gl KCl 25°C 0.20M C B2=16.12 1994JKa (41964)3772
B(CuH2L)=23.71
B(CuHL)=19.44
B(CuH2L2)=37.64
B(CuHL2)=27.16

K(CuH2L2=CuHL2+H)=-10.48, K(CuHL2=CuL2+H)=-11.04.

C5H15N3 L CAS 15995-42-3 (153)
1,1,1-Tris(aminomethyl)ethane; (H2N.CH2)3C.CH3


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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      cal KNO3   25°C 0.50M C   H              1980SVa (41967)3773
DH1=-63.6 kJ mol-1, DS1=-3.3, DH(K2)=-31.8, DS2=41 + CuHL, CuHL2 and Cu(HL)2
-----
Cu++      gl  KNO3   20°C 0.10M U              K1=11.55      1970KAd (41968)3774
                                K(Cu+HL)=8.33
                                K(Cu+H2L)=2.01

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*****
C5H15N3          L                      CAS 34066-95-0 (1066)
1,4,7-Triazaoctane; H2N.CH2.CH2.NH.CH2.CH2.NH.CH3
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KNO3   25°C 0.13M U              K1=15.32      1971AAa (41976)3775
                                K(CuL+OH)=5.07
-----
Cu++      gl  KNO3   25°C 0.11M U   M              1971AAa (41977)3776
                                K(CuL+Gly)=4.65
                                K(CuL+Val)=3.99
                                K(CuL+Sar)=3.98
                                K(CuL+b-Ala)=3.15

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*****
C5H15N3          L                      CAS 13531-52-7 (738)
1,4,8-triazaoctane, N-(2-Aminoethyl)propane-1,3-diamine; H2NCH2CH2NHCH2CH2CH2NH2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KNO3   20°C 0.10M C              K1=16.76 B2=20.59  2001GJb (41985)3777
-----
Cu++      gl  NaClO4 25°C 0.10M C   H              K1=16.5      1998IHa (41986)3778
                                K(Cu+HL)=8.8
                                *K(CuL)=-9.5
DH(K1)=-83.5 kJ mol-1, DS=33.0 J mol-1 K-1
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Cu++      gl  KNO3   20°C 0.10M C   M              K1=16.76 B2=20.59  1997LBc (41987)3779
                                B(CuH-2L)=-3.63
                                B(Cu(en)L)=20.18
                                B(CuAL)=20.25
                                B(CuBL)=20.45

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A: 1,3-diaminopropane. B(CuCL)=19.59. B: 2,3-diaminopropanoic acid;
C: 2,4-diaminobutanoic acid.

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Cu++      cal KNO3   25°C 0.50M U   H              1974BFb (41988)3780
DH(K1)=-80.42, DH(K2)=-25.52, DH(M+HL=MHL)=-48.12, DH(MHL+HL=M(HL)2)=-24.69
and DH(ML+OH=MLOH)=-9.54 kJ mol-1.
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Cu++      gl  KNO3   25°C 0.10M U              K1=16.4      B2=19.8      1973AHc (41989)3781
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Medium:0.2-0.6(some EtOH)

C6H3OC13 HL CAS 88-06-2 (508)
2,4,6-Trichlorophenol; HO.C6H2(Cl)3

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

Cu++ ISE none 25°C 0.0 M K1=5.0 1997DFc (42161)3789
Method: Cd ion selective electrode. Self medium. K1 calculated for I=0.
By spectrophotometry, K1=4.8.

C6H4NO2Cl HL CAS 39825-15-5 (3709)
4-Chloro-2-nitrosophenol; HO.C6H3.(2-N:O)(4-Cl)

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

Cu++ gl diox/w 25°C 50% U K1=6.20 1961SHa (42174)3790
Medium: 50% dioxan, 0.1 M KNO3

C6H4N2O4 H2L CAS 89-01-0 (5801)
Pyrazine-2,3-dicarboxylic acid;

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

Cu++ sp non-aq 25°C 100% U IH K1=3.75 1986BCa (42205)3791
In dimethylacetamide, I= 0.05 M Bu4N.ClO4. In DMSO, K=2.84

C6H4N2O6 H2L CAS 7659-29-2 (2694)
1,2-Dihydroxy-3,5-dinitrobenzene; (HO)2.C6H2(NO2)2

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

Cu++ gl KCl 25°C 0.10M M K1=10.04 B2=17.8 1986HAd (42257)3792

C6H4N4O HL CAS 900-47-0 (3083)
4-Hydroxypteridine;

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

Cu++ gl oth/un 20°C 0.01M U K1=4.8 B2=9.5 1954AHb (42272)3793

C6H4N4O2 H2L Lumazine CAS 487-21-8 (3084)
2,4-Dihydroxypteridine (2,4-Pteridinediol)

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

Cu++ gl KNO3 25°C 0.10M C 1988K0a (42282)3794

K(Cu+HL)=15.45
K(Cu+2HL)=30.58

Cu++ gl oth/un 20°C 0.01M U B2=8.3 1953ALa (42283)3795

C6H5NO L Picolinaldehyde CAS 1121-60-4 (1186)
2-Pyridinecarboxaldehyde; C5H4N.CHO

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

Cu++ gl KNO3 25°C 0.10M U M 2000NDa (42365)3796
B(Cu(val)L)=16.86
B(Cu(val)L2)=19.41
B(Cu(phe)L)=16.71
B(Cu(phe)L2)=19.25

B(Cu(trp)L)=16.62, B(Cu(trp)L2)=19.42.

Cu++ gl KNO3 25°C 0.10M U M K1=2.65 B2= 4.99 1999NDa (42366)3797
Data for ternary complexes with histidine.

Cu++ gl NaNO3 30°C 0.50M U M 1979EDa (42367)3798
K(Cu+H-1L)=10.31
K(Cu+2(H-1L))=20.00
K(Cu+H-1L+malonate)=15.54
B(CuL(malonate))=8.41

B(CuH2L(malonate))=15.18; B((CuL2(malonate))=11.10 plus other constants

Cu++ gl NaNO3 30°C 0.50M U M 1979EDa (42368)3799
K(Cu+H-1L+oxalate)=16.31
K(Cu+H-1L+2(oxalate))=19.79
B(CuL(oxalate)2)=26.81
B(CuHL(oxalate)2)=31.78

Cu++ sp KCl 30°C 0.50M U K1=2.94 B2=4.75 1977EEa (42369)3800
B3=6.32
B4=8.52
B(CuH-1L)=-1.94
B(CuH-2L)=-8.56

Cu++ ISE KNO3 25°C 0.10M U K1=2.94 B2=4.74 1976HEa (42370)3801
B3=6.32
B4=8.52

Cu++ gl KNO3 25°C 0.10M U I K1=2.72 1976HEa (42371)3802
K(Cu+H-1L)=10.67
K(Cu+2(H-1L))=ca.20.5

Cu++ vlt NaNO3 20°C 0.50M C 1976PPb (42372)3803
K(Cu+LH2O)=3.29
K(Cu+LOH)=11.04
K(CuL+LOH)=5.97
K(Cu+2(LH2O))=6.58

B(CuL(LOH))=13.47; B(Cu(LH2O)2(LOH))=14.36; B(Cu(LOH)2)=21.22 where L= free

ligand and LH2O=hydrated species. Potentiometry and spectrometry also used

Cu++ gl none 25°C 0.00 U K1=2.65 B2=4.34 1971GRa (42373)3804
K(CuLOH+H)=4.29
K(CuL2OH+H)=3.89
K(CuL2(OH)2+H)=5.16

Spectrophotometry also used

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

Cu++ gl diox/w 25°C 50% C K1=7.766 B2=16.826 1988CFb (42435)3805
Medium: 50% v/v dioxan/H2O, 0.1 M KNO3

Cu++ gl diox/w 25°C 50% C M 1988CTa (42436)3806
B(CuAL)=18.94
Medium: 0.2 M KNO3. H2A=3-Hydroxynaphthalene-1-carboxylic acid

Cu++ gl KNO3 25°C 0.10M U T K1=5.83 1988NSc (42437)3807
At 40 C, K1=5.74.

Cu++ sp mixed ? 50% U I M 1972AMa (42438)3808
K(CuCl+L)=1.85
K(CuCl+2L)=4.40
Medium: 50% benzene, 50% 3-methylbutanol. 0% benzene, values are 2.22 and 4.27. 75% benzene, 1.74 and 4.37. Data also in CCl4 and DMF mixtures

Cu++ vlt KNO3 25°C 0.20M U M B2=16.1 1972CMc (42439)3809
B(CuL2A2)=18.2
A=imidazole

Cu++ vlt NaNO3 20°C 0.50M U M B2=15.35 1972PFa (42440)3810
B3=16.8

Cu++ EMF oth/un rt 0.50M U M 1971MGc (42441)3811
B(CuL(Ala))=19.30

Cu++ sp NaNO3 20°C 0.20M U K1=7.9 B2=14.75 1970PBa (42442)3812
By polarography B2=14.88, B(CuL(OH)2)=16.9

Cu++ gl diox/w 25°C 50% U K2=6.15 1966WRb (42443)3813
Medium: 50% dioxan, 0.1 M HClO4. Ternary complexes with phenanthroline

Cu++ sp NaClO4 25°C 1.0M U K1=8.73 B2=15.51 1965MBb (42444)3814

Cu++ sp oth/un ? 0.02M U M 1963ISa (42445)3815
B(CuL(NTA))=15.94

Cu++ ISE NaNO3 20°C 0.10M U K1=7.95 B2=14.95 1960ANb (42446)3816

Cu++ gl oth/un 25°C 0.0 U K1=7.55 1957LUa (42447)3817

Cu++ sp KNO3 25°C 0.10M U K1=8.6 B2=16.0 1957SYa (42448)3818

Cu++ gl oth/un 25°C 0.02M U I K1=6.2 B2=12.2 1955HCa (42449)3819
In 50% dioxan K1=6.6

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

Cu++ gl NaCl 25°C 0.10M U K1=3.22 2001DSb (42645)3820

Cu++ gl NaClO4 37°C 0.15M U K1=8.01 B2=14.68 1999NNa (42646)3821

Cu++ gl KNO3 30°C 0.10M U M K1=2.52 1989BBg (42647)3822
K(CuA+L)=2.61
B(CuAL)=14.53

H2A is 8-hydroxyquinoline-5-sulfonic acid.

Cu++ gl KNO3 25°C 0.10M U K1=8.00 B2=15.50 1988ZMa (42648)3823

Cu++ gl NaNO3 20°C 0.50M U K1=3.23 1970PBa (42649)3824

Cu++ vlt NaNO3 20°C 0.50M U K1=3.46 1970PBa (42650)3825

Cu++ sp oth/un 25°C 0.10M U M 1970PBa (42651)3826
K(Cu(Gly)2+L)=1.09
K(Cu(Ala)2+L)=0.96
K(Cu(Ser)2+L)=0.74

C6H5NO2S H2L (6876)
2-Mercaptopyridine-3-carboxylic acid;

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

Cu++ sp alc/w 25°C 50% C K1=10.41 1995ISa (42704)3827
K(Cu+H2L=CuHL+H)=1.80
K(CuL+H)=-6.15
K(Cu+HL)=7.60

Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.

Cu++ sp alc/w 25°C 50% C 1995SIa (42705)3828
K(Cu+H2L=CuHL+H)=1.82

Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.

Cu++ gl alc/w 25°C 40% U M K1=7.40 1993ARb (42706)3829

K(CuHA+L)=7.80
K(Cu+HA+L)=17.78

Medium: 40% (v/v) EtOH/H2O, 0.10 M KNO3. By spectrophotometry:
K(CuHA+HL=CuHAL+H)=1.10, K(Cu+HA+L)=17.64. H4A is gallic acid.

C6H5NO3 H2L CAS 609-71-2 (5910)
2-Hydroxypyridine-3-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	alc/w	25°C	50%	C			K1=9.05 B2=19.42 K(Cu+H2L=CuHL+H)=1.70 K(Cu+H2L=CuL+2H)=-6.80 K(CuL+H)=-5.70 K(CuHL+HL=CuL2+2H)=-7.74	1995ISa (42718)	3830

Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4. K(Cu+HL)=7.92.

Cu++	sp	alc/w	25°C	50%	C				1995SIa (42719)	3831
								K(Cu+H2L=CuHL+H)=1.72 K(Cu+H2L=CuL+2H)=-6.8 K(CuHL+HL=CuL2+2H)=-7.74		

Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.

Cu++	gl	alc/w	25°C	40%	U	M		K1=8.50 B2=16.45 K(CuHA+L)=9.05 K(Cu+HA+L)=19.03	1993ARb (42720)	3832
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Medium: 40% (v/v) EtOH/H2O, 0.10 M KNO3. By spectrophotometry:
K(CuHA+HL=CuHAL+H)=2.40, K(Cu+HA+L)=19.91. H4A is gallic acid.

Cu++	gl	alc/w	25°C	50%	U			K1=9.05 B2=19.42 B(CuAL)=19.65 B(CuL+A)=10.60	1993SAa (42721)	3833
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Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4. H2A is salicylic acid.

C6H5NO3 H2L CAS 874-24-8 (4356)
3-Hydroxypyridine-2-carboxylic acid; C5H3N.(OH)(COOH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	alc/w	25°C	50%	C			K1=8.42 B2=14.24 K(Cu+HL=CuL+H)=-0.80 K(CuL+HL=CuL2+H)=-3.40	1995ISa (42745)	3834

Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.

Cu++	sp	alc/w	25°C	50%	C				1995SIa (42746)	3835
								K(Cu+H2L=CuL+2H)=-0.8		

Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.

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

Cu++ gl KNO3 30°C 0.10M U M K1=3.1 1986KRa (42823)3836
K(CuA+L)=2.32
K(CuB+L)=7.12

HA=picolinic acid, HB=6-methylpicolinic acid

Cu++ gl NaClO4 25°C 0.10M U T K1=3.62 B2=6.80 1981RRb (42824)3837
Temp range 25-50. K1 at 50 C = 3.22; K2 at 50 C = 2.95

C6H5NO4 H2L 3-Nitrocatechol CAS 6665-98-1 (2685)
1,2-Dihydroxy-3-nitrobenzene; O2N.C6H3(OH)2

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

Cu++ gl KCl 25°C 0.10M M K1=12.30 B2=22.33 1985HAb (42848)3838

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

Cu++ gl NaCl 25°C 0.10M U K1=11.37 B2=20.21 1993DLA (42884)3839

Cu++ gl KNO3 35°C 0.20M C M K1=11.18 1992YKa (42885)3840
B(Cu(edda)L)=21.47
K(Cu(edda)+L)=6.97

Cu++ gl KNO3 25°C 0.10M C M K1=11.60 B2=20.60 1989DAa (42886)3841
K(CuA+L)=10.14
B(CuAL)=22.06

H2A: 8-hydroxyquinoline-5-sulfonic acid.

Cu++ gl NaClO4 30°C 0.05M U TIH K1=12.18 B2=22.40 1986NDa (42887)3842
I=0.1, 40 C: K1=11.24, B2=20.46; 50 C: K1=11.16, B2=20.21
I=0.1, 30 C:K1=11.55, B2=21.06; I=0.2, 30 C:K1=11.49, B2=21.28

Cu++ gl KCl 25°C 0.10M M K1=11.70 B2=21.10 1984HAb (42888)3843

Cu++ gl KNO3 25°C 0.10M U K1=11.67 B2=20.95 1972JWa (42889)3844

Cu++ gl KNO3 30°C 0.10M U K1=11.65 B2=20.93 1964MTb (42890)3845

C6H5NO4 HL CAS 78901-24-3 (885)
4-Hydroxypyridine-2-carboxylic acid N-oxide; C5H3N(O)(OH).COOH

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

Cu++ gl NaClO4 30°C 0.10M U T K1=3.94 B2=6.69 1982RRa (42965)3846

C6H5N3 L Azabenzimidazol CAS 273-21-2 (2033)
4-Azabenzimidazole, 1H-Imidazo[4,5-b]pyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	U			K1=2.48 B3=7.95 B4=8.43	1981LMb (42984)	3847

C6H5N4Cl L CAS 2346-74-9 (5786)
2-Chloro-9-methylpurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	dis	NaClO4	25°C	1.00M	U			K1=1.2	1985A0a (42992)	3848

C6H5N4Cl L CAS 2436-75-0 (5790)
8-Chloro-9-methylpurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	dis	NaClO4	25°C	1.00M	U			K1=1.2	1985A0a (42995)	3849

C6H5N5 L (1699)
3-(Pyrazin-2-yl)-1,2,4-triazole; C4H3N2.C2H2N3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U	M		B2=5.2 K(Cu+H-1L)=7.6 K(Cu+2H-1L)=11.3 B(Cu(bpy)L2)=13.3 K(Cu+bpy+H-1L)=16.1	1991GBa (42998)	3850

K(Cu+bpy+2H-1L)=18.8.

C6H5O2Cl H2L 4-Cl-Catechol CAS 2138-22-9 (1656)
1,2-Dihydroxy-4-chlorobenzene; Cl.C6H3(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U			K1=12.89 B2=23.05	1972JWa (43076)	3851
Cu++	gl	KNO3	30°C	0.10M	U			K1=12.56 B2=22.39	1964MTb (43077)	3852

C6H5O3I HL CAS 16065-34-2 (2690)
5-Hydroxy-2-(iodomethyl)-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++ sp NaCl 25°C 0.10M C K1=6.46 1976Kic (43096)3853

C6H5O4Br L CAS 40838-32-2 (1084)
6-Bromo-5-hydroxy-2-(hydroxymethyl)-4H-pyran-4-one;

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

Cu++ sp NaCl 25°C 0.10M C K1=5.71 1976Kic (43101)3854

C6H6NBr L (8782)
5-Bromo-2-methylpyridine;

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

Cu++ gl NaNO3 25°C 0.50M C K1=0.67 2002KSb (43187)3855

C6H6NCl L CAS 10445-91-7 (8781)
4-(Chloromethyl)pyridine;

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

Cu++ gl NaNO3 25°C 0.50M C K1=2.44 2002KSb (43203)3856

C6H6NO5P H3L CAS 145432-83-3 (7384)
6-Phosphonopyridine-2-carboxylic acid; H00C.C5H3N.P03H2

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

Cu++ gl KCl 25°C 0.20M C K1=10.47 B2=14.55 1997BDa (43220)3857

C6H6NO5P H3L (7385)
6-Phosphonopyridine-3-carboxylic acid; H00C.C5H3N.P03H2

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

Cu++ gl KCl 25°C 0.10M C K1=7.87 B2=14.23 1997BDa (43224)3858
B(CuHL)=11.13
B(CuH-1L)=0.04
B(CuH2L2)=20.8
B(CuHL2)=18.19

C6H6NO6P H2L CAS 330-13-2 (5865)
4-Nitrophenylphosphoric acid; N02.C6H4.O.PO.(OH)2

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

Cu++ gl NaNO3 25°C 0.10M U I K1=2.33 1992MSd (43232)3859

Also data for 20-50% v/v dioxane/H2O, 0.10 M NaNO3.
In 50% dioxane/H2O, 0.10 M NaNO3: K1=3.99.

Cu++ gl NaCl 25°C 0.15M C H K1=2.148 1991KLa (43233)3860
DH=20.4 kJ mol⁻¹, DS=109.7 J K⁻¹ mol⁻¹

Cu++ gl diox/w 25°C 30% C I K1=3.27 1989LCb (43234)3861
Medium: 30% dioxan/H₂O, 0.1 M NaNO₃. In 0%, K1=2.33; 20%, K1=2.90;
40%, K1=3.63; 50%, K1=3.99

Cu++ gl NaNO₃ 25°C 0.10M C M K1=2.33 1989MSd (43235)3862
K(Cu(bpy)+L)=2.66; K(Cu(phen)+L)=2.71

Cu++ gl NaNO₃ 25°C 0.10M C K1=2.33 1988MSa (43236)3863

C₆H₆N₂O L Isonicotinamide CAS 1453-82-3 (1949)
Isonicotinamide, Pyridine-4-carboxylic acid amide; C₅H₄N.CO.NH₂

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

Cu++ gl KNO₃ 25°C 0.50M U K1=1.83 B2=3.08 1974WAb (43253)3864
B3=3.54

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

Cu++ gl NaCl 25°C 0.10M C 19900Sa (43274)3865

K(Cu+HL)=3.93
K(Cu+2HL)=7.48
K(Cu+HL=CuL+H)=0.90
K(Cu+2HL=CuHL₂+H)=5.43
K(Cu+2HL=CuL₂+2H)=-1.53, K(3Cu+3HL=Cu₃H-1L₃+4H)=5.57,
K(3Cu+3HL=Cu₃H-2L₃+5H)=-0.97

Cu++ EMF NaNO₃ 20°C 0.50M U B2=18.6 1973PEa (43275)3866
K(Cu+2HL)=8.3
K(Cu+L+HL)=15.85
B(CuL(OH)₂)19.85
B(CuL₂OH)=20.0
K(Cu(HL)₂=CuHL₂+H)=-2.55; K(CuHL₂=CuL₂+H)=-7.17

Cu++ gl KNO₃ 24°C 0.10M U M K1=10.8 B2=16.80 1962BEa (43276)3867
Ternary complexes with NTA

Cu++ vlt oth/un 25°C ? U B2=18.68 1961LLa (43277)3868
0.2 phosphate buffer

Cu++ gl oth/un 25°C dil U 1961LLa (43278)3869
K(Cu(HL)₂=CuHL₂+H)=-2.77
K(CuHL₂=CuL₂+H)=-6.70

C6H6N2O L Acetamidopyrid. CAS 1452-77-3 (2047)
Pyridine-2-carboxylic acid amide; C5H4N.CO.NH2

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

Cu++ gl KNO3 25°C 0.50M U K1=2.87 B2=5.40 1976WAa (43308)3870

Cu++ vlt KNO3 25°C 0.20M U K1=16.1 1972CMc (43309)3871

C6H6N2O L Nicotinamide CAS 98-92-0 (1473)
Pyridine-3-carboxylic acid amide, Vitamin PP, C5H4N.CO.NH2

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

Cu++ gl KNO3 25°C 0.50M U K1=1.65 B2=2.69 1981LRa (43323)3872
B3=3.19

Cu++ sp oth/un 25°C var U M 1973FDa (43324)3873
K(Cu(Gly)+L)=1.12
K(Cu(Gly)2+L)=0.96

Cu++ oth none 0°C ? U K1=1.80 B2=3.20 1971KAc (43325)3874
Method: freezing point depression

C6H6N2O2 HL Aminonicotinic CAS 5345-47-1 (903)
2-Aminopyridine-3-carboxylic acid; H2N.C5H4N.CO.OH

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

Cu++ gl KNO3 35°C 0.15M U T H K1=3.28 1980SKb (43344)3875
Temperature range is 25-45C. At 35C, DH1=-13.56 kJ mol-1;
DS1=18.83 J mol-1 K-1

Cu++ gl diox/w 35°C 50% U K1=4.12 1980SKb (43345)3876

C6H6N2O2 HL (8281)
3-Hydroxy-2-amidocarboxypyridine, Hydroxypicolinamide;

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

Cu++ gl alc/w 25°C 40% U K1=8.37 B2=16.18 1994AKa (43365)3877
Medium: 40% v/v EtOH/H2O, 0.10 M NaClO4

Cu++ gl KNO3 25°C 0.10M C K1=7.66 B2=14.34 1990ARa (43366)3878

C6H6N2O2 HL CAS 31888-72-9 (2051)
Isonicotinoylhydroxamic acid; C5H4N.CO.NH.OH

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

Cu++ gl NaClO4 35°C 0.10M U M K1=6.44 B2=11.50 1977ASd (43409)3879
K(CuL+bpy)=6.60
K(CuL+Oxine-5-sulph)=5.18

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

Cu++ cal non-aq 30°C 100% U M 1971GHc (43414)3880
K(CuL2+A)=0.72
K(CuL2+B)=-0.15
K(CuL2+C)=0.71
K(CuL2+D)=1.38

Medium: benzene. A=4-cyanopyridine; B=dioxan; C=2-methylpyridine; D=3-methylpyridine. K(CuL2+py)=1.19; K(CuL2+E)=0.40, E=2,4,6-trimethylpyridine

Cu++ sp non-aq 22°C 100% U T M 1971GHc (43415)3881

K(CuL2+A)=0.00
K(CuL2+py)=1.34
K(CuL2+B)=1.09
K(CuL2+C)=1.64

Medium: benzene. K(CuL2+D)=1.63. A=dioxan, B=2-Me-pyridine, C=3-Me-pyridine, D=4-Me-pyridine

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

Cu++ gl NaClO4 35°C 0.10M U M K1=6.78 B2=12.31 1977ASd (43433)3882
K(CuL+bpy)=6.92
K(CuL+Oxine-5-Sulph)=5.49

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

Cu++ gl diox/w 30°C 50% U K1=6.15 B2=11.08 1966VMa (43441)3883
Medium: 50% dioxan, 0.1 M NaClO4

C6H6N2O3 H2L CAS 2504-83-8 (1141)
Imidazolyipyruvic acid; C3H3N2.CH2.CO.COOH

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

Cu++ gl KCl 25°C 0.10M U K1=7.9 B2=15.00 1975SDa (43449)3884

C6H6N2O3S H2L CAS 342778-78-3 (8834)

2-(4-Methylthiazol-2-yl)-2-(hydroxyimino)ethanoic acid;

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

Cu++ gl KNO3 25°C 0.10M C B2=13.86 2002MSa (43454)3885
B(CuH2L2)=25.66
B(CuHL2)=21.25

C6H6N2O4 HL Methylorotic CAS 706-36-2 (2611)
3N-Methyl-2,4-dihydroxypyrimidine-6-carboxylic acid, methylorotic acid;

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

Cu++ sp oth/un 20°C 0.10M C K1=9.14 1981LGc (43461)3886
Medium: acetate (0.1 M) or phosphate (0.1 M) buffers.

Cu++ gl NaCl 20°C 0.15M U K1=8.85 1979DZc (43462)3887
K(Cu+HL)=2.85

C6H6N4 L Biimidazole CAS 492-98-8 (1007)
2,2'-Biimidazole; C3H3N2-C3H3N2

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

Cu++ gl NaClO4 25°C 0.10M C K1=6.27 B2=10.96 1998TSa (43478)3888

C6H6N4 L 9-Methylpurine CAS 20427-22-9 (2480)
9-Methylpurine;

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

Cu++ gl NaClO4 25°C 1.00M U K1=1.88 1983ALa (43484)3889

Cu++ sp NaClO4 25°C 0.18M U H K1=1.70 B2=2.43 1983ALb (43485)3890
DH(K1)=-18.9 kJ mol⁻¹

C6H6N4O L CAS 2503-56-2 (3682)
5-Methyl-7-hydroxy-[1,2,4]-triazolo[1,5-a]pyrimidine;

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

Cu++ gl KNO3 20°C 0.10M U K1=3.19 B2=5.90 19660Ca (43495)3891

C6H6N4O HL CAS 1006-08-2 (4357)
7-Methylhypoxanthine;

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

Cu++ gl NaClO4 25°C 0.05M U K1=5.80 1969RWa (43499)3892

Cu++ sp NaClO4 25°C 0.05M U 1969RWa (43500)3893

K(Cu+HL)=1.4

C6H6N4O HL CAS 875-31-0 (4358)

9-Methylhypoxanthine;

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

Cu++ gl NaClO4 25°C 0.05M U K1=5.40 1969RWa (43502)3894

C6H6N4S L CAS 50-66-8 (3092)

6-Methylthiopurine;

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

Cu++ gl diox/w 25°C 50% U K1=7.69 B2=14.96 1959CFb (43507)3895

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

Cu++ gl alc/w 30°C 40% C M K1=12.15 1997RRd (43622)3896

K(CuA+L)=12.18

Medium: 40% v/v EtOH/H2O, 0.10 M KNO3.

HA is 2-(phenylhydrazono)butanoic acid

Cu++ gl KNO3 30°C 0.10M U K1=12.32 1994RSa (43623)3897

Cu++ gl KNO3 35°C 0.20M C M K1=13.64 B2=24.08 1994YVa (43624)3898

B(Cu(P207)L)=19.81

B(Cu(P3010)L)=18.72

Cu++ gl alc/w 30°C 40% M K1=12.11 B2=21.93 1993RRd (43625)3899

Medium: 40% v/v EtOH/H2O, 0.10 M KNO3.

Cu++ gl KNO3 25°C 1.00M C K1=13.64 B2=24.92 1992BKd (43626)3900

Cu++ gl KNO3 35°C 0.20M C M K1=13.64 1992YKa (43627)3901

B(Cu(edda)L)=23.51

K(Cu(edda)+L)=9.01

Cu++ gl NaClO4 25°C 0.20M U M K1=13.66 B2=24.96 1991MBb (43628)3902

B(CuL(Ala))=20.45

B(CuL(Trp))=20.63

B(CuL(Phe))=19.92

B(CuL(Tyr))=19.67

Cu++ gl NaClO4 30°C 0.20M U K1=13.66 B2=24.96 1990CBa (43629)3903

Cu++ gl KNO3 25°C 0.10M C M K1=13.02 B2=23.75 1989DAa (43630)3904
K(CuA+L)=12.10
B(CuAL)=24.02

H2A: 8-hydroxyquinoline-5-sulfonic acid.

Cu++ gl KNO3 30°C 0.10M U M K1=12.32 B2=21.94 1989SRd (43631)3905
K(CuA+L)=12.63
B(CuAL)=20.25
K(CuC+L)=12.61
B(CuCL)=20.54

HA=4-amino-5-mercapto-1,2,4-triazole, HC=4-amino-5-mercapto-3-methyltriazole

Cu++ gl KNO3 35°C 0.10M U M 1989SRe (43632)3906
K(Cu+HL)=12.26 ?
K(CuL+Cytosine)=12.38 ?

Cu++ gl KNO3 25°C 0.10M U M K1=11.28 B2=19.90 1988NSb (43633)3907
B(CuLA)=16.74

H2A=malonic acid

Cu++ gl NaClO4 30°C 0.10M M TIH K1=12.96 B2=23.30 1986DNa (43634)3908
Data for 0.05-0.20 M NaClO4. Extrap. to I=0.0, K1=13.32, B2=23.70.
Data for 30-50 C. DH(K1)=-54.6 kJ mol⁻¹.

Cu++ gl KNO3 30°C 0.10M U HM K1=12.23 1986DRa (43635)3909
K(CuA+L)=11.75

HA=picolinic acid N-oxide. DH(K1)=-23.6 kJ mol⁻¹, DS=168.1 J K⁻¹ mol⁻¹
DH(CuA+L)=-49.0, DS=63.1

Cu++ gl KNO3 35°C 0.10M C K1=11.95 1985RRh (43636)3910

Cu++ gl KNO3 25°C 0.10M U M K1=11.28 B2=19.90 1984VSa (43637)3911
B(CuLA)=11.16
K(CuA+L)=7.67
K(CuL+A)=0.12

H2A=phthalic acid

Cu++ gl KNO3 30°C 0.10M C T HM K1=12.30 B2=22.19 1983RKa (43638)3912
B(CuAL)=11.88

HA is thiazolidine-4-carboxylic acid. DH(K1)=-21.5 kJ mol⁻¹, DS(K1)=164
J K⁻¹ mol⁻¹; DH(K2)=-23.0, DS(K2)=113; DH(CuAL)=-15.3, DS(CuAL)=177

Cu++ gl KNO3 25°C 0.20M U M K1=13.81 B2=24.90 1981MOd (43639)3913
K(CuA+L)=13.51

A is bis(2-imidazolyl)methane

Cu++ gl KCl 25°C 0.20M C M 1979KGa (43640)3914
B(CuHLA)=35.63
B(CuLA)=25.08

H2A=dopamine.

Cu ⁺⁺	gl	KNO ₃	25°C	0.20M	C	HM	K ₁ =13.81	B ₂ =24.90	1979MBb (43641)3915
							K(Cu(bpy)+L)=14.12		
							DH(K ₁)=-22 kJ mol ⁻¹ , DH(K ₂)=-23, DH(Cu(bpy)+L)=-30		
Cu ⁺⁺	gl	KCl	25°C	0.20M	C	M	K ₁ =13.82	B ₂ =24.69	1976GKc (43642)3916
							B(CuL(Ala))=20.54		
							B(CuL(Phe))=20.37		
Cu ⁺⁺	sp	NaClO ₄	25°C	0.10M	U	M	K ₁ =13.96	B ₂ =25.03	1973SHa (43643)3917
							B(CuL(phen))=23.56		
Cu ⁺⁺	gl	KNO ₃	25°C	0.10M	U		K ₁ =13.83	B ₂ =24.75	1972JWa (43644)3918
Cu ⁺⁺	gl	NaClO ₄	25°C	0.10M	U		K ₁ =13.96	B ₂ =25.03	1971GSb (43645)3919
Cu ⁺⁺	gl	NaClO ₄	25°C	0.10M	U	M			1971HGc (43646)3920
							K(CuL ₂ +Cu(bpy) ₂ =2Cu(bpy)L)=6.15		
							K(CuL ₂ +CuA ₂ =2CuAL)=5.47		
							K(CuL ₂ +CuB ₂ =2CuBL)=4.64		
							K(CuL ₂ +CuC ₂ =2CuCL)=3.46		
A=4-(2'-pyridyl)imidazole; B=2-(2'-aminomethyl)pyridine;									
C=4-aminomethylimidazole; K(CuL ₂ +Cu(en) ₂ =2Cu(en)L)=2.05									
Cu ⁺⁺	gl	NaClO ₄	25°C	0.20M	U		K ₁ =12.97		1970CBd (43647)3921
Cu ⁺⁺	gl	NaClO ₄	25°C	0.10M	U	M	K ₁ =13.96	B ₂ =25.03	1970GSa (43648)3922
							B(CuL(bpy))=22.39		
Cu ⁺⁺	gl	KNO ₃	25°C	0.10M	U		K ₁ =12.61	B ₂ =22.21	1969CMD (43649)3923
Cu ⁺⁺	gl	oth/un	25°C	0.10M	U		K ₁ =13.96	B ₂ =25.03	1969HGb (43650)3924
Cu ⁺⁺	gl	KNO ₃	25°C	1.0M	U	I			1968TMa (43651)3925
							K(Cu+H ₂ L=CuL+2H)=-8.679		
							K'(CuL+H ₂ L=CuL ₂ +2H)=-10.955		
In 50% MeOH, 0.1 M KNO: K=-7.85, K'=-9.02									
Cu ⁺⁺	sp	NaClO ₄	25°C	0.10M	U		K ₁ =13.88	B ₂ =24.32	19670Hb (43652)3926
Cu ⁺⁺	gl	NaClO ₄	30°C	0.10M	U		K ₁ =13.58	B ₂ =24.07	1966APb (43653)3927
Cu ⁺⁺	gl	KNO ₃	?	0.20M	U		K ₁ =14.27	B ₂ =27.63	1966DMe (43654)3928
Cu ⁺⁺	gl	KNO ₃	25°C	0.10M	U	M	K ₁ =12.74		1966LMe (43655)3929
							K(Cu(bpy)+L)=13.10		
Cu ⁺⁺	gl	KCl	25°C	0.10M	U		K ₁ =13.76	B ₂ =24.51	1965JNa (43656)3930
Cu ⁺⁺	gl	KNO ₃	30°C	0.10M	U		K ₁ =12.52	B ₂ =22.18	1963MNC (43657)3931

 Cu++ gl oth/un 20°C 0.10M U 1958PEe (43658)3932
 K(Cu+HL=CuL+H)=1.25
 K(CuL+HL=CuL2+H)0.65

Cu++ gl oth/un 25°C ->0 U K1=14.1 B2=24.6 1957TIa (43659)3933

Cu++ gl oth/un 25°C ->0 U K1=8.09 B2=19.82 1956NMa (43660)3934

Cu++ vlt oth/un ? ? U K1=23.65 B2=31.60 1955VGb (43661)3935
 B3=41.42

Cu++ gl diox/w 30°C 75% U K1=19.5 B2=30.7 1954UFa (43662)3936

C6H6O2S HL (3683)
 2-Acetyl-3-hydroxythiophene; C4H2S(CO.CH3)OH

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

Cu++ gl diox/w 25°C 50% U M K1=7.86 1967SIb (43901)3937
 K(Cu(bpy)+L)=8.32

Medium: 50% dioxan, 0.1 M NaClO4

Cu++ sp diox/w 25°C 10% U K1=6.30 1966PSb (43902)3938
 Medium: 10% dioxan, 0.1 M NaClO4. By glass electrode, K1=6.46

C6H6O2S HL CAS 36448-58-5 (3684)
 3-Acetyl-4-hydroxythiophene; C4H2S(CO.CH3)OH

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

Cu++ sp diox/w 25°C 10% U K1=5.4 1966PSb (43914)3939
 Medium: 10% dioxan, 0.1 M NaClO4

C6H6O2S2 HL CAS 13431-03-3 (5723)
 Benzenethiosulfonic acid; C6H5.SO2.SH

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

Cu++ ISE alc/w 20°C 30% U T K1=6.26 B2=9.51 1986GUa (43917)3940
 B3=11.66

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

Cu++ gl NaClO4 25°C 0.20M U M K1=12.80 1991MBb (43935)3941
 B(CuL(Tyr))=18.35
 B(CuL(Trp))=19.67

B(CuL(Phe))=18.58

Cu++ gl NaClO4 30°C 0.20M U K1=12.80 1990CBa (43936)3942

Cu++ gl NaClO4 30°C 0.10M M TIH 1986DNa (43937)3943

K(Cu+HL)=12.54

K(Cu+2HL)=23.01

Data for 0.05-0.20 M NaClO4. Extrap. to I=0.0, K(Cu+HL)=12.89,
K(Cu+2HL)=23.44. Data for 30-50 C. DH(Cu+HL)=-19.1 kJ mol⁻¹.

Cu++ gl KNO3 ? 0.20M U 1966DMe (43938)3944

K(Cu+HL)=12.4

K(CuHL+HL)=11.8

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

Cu++ sp NaClO4 25°C 2.0M C T H K1=7.89 B2=14.44 1982GHa (44056)3945
Data for 20-40 C. DH(K1)=-14.1 kJ mol⁻¹, DS(K1)=103 J K⁻¹ mol⁻¹.
DH(K2)=-18.9, DS(K2)=62.

Cu++ gl NaClO4 25°C 0.50M U K1=7.68 B2=13.78 1973CAa (44057)3946

Cu++ sp NaClO4 25°C 0.50M U K1=7.70 B2=13.68 1973CAa (44058)3947

Cu++ gl diox/w 30°C 50% U K1=10.05 B2=18.39 1957Cwa (44059)3948

C6H6O3 HL Allomaltol CAS 644-46-2 (2688)
5-Hydroxy-2-methyl-4H-pyran-4-one;

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

Cu++ sp NaCl 25°C 0.10M C K1=6.87 1976KIc (44122)3949

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

Cu++ gl diox/w 25°C 40% C K1=5.42 B2=10.17 1990SHb (44155)3950
Medium: 40% v/v dioxane/H2O, 0.03 M KCl.

Cu++ sp KCl 25°C 0.10M C K1=6.88 1987PEa (44156)3951

Cu++ sp NaCl 25°C 0.10M C K1=6.68 B2=12.56 1976KIc (44157)3952

Cu++ gl NaClO4 25°C 2.00M C K1=6.6 B2=11.7 1975GHa (44158)3953

Cu++ gl diox/w 30°C 75v% U K2=10.13 1960KFc (44159)3954

Cu++ EMF KCl 21°C 0.10M U K1=6.6 B2=11.8 19590Kb (44160)3955
Method: H electrode

Cu++ gl diox/w 30°C 50% U K1=9.3 B2=16.5 1954BFa (44161)3956

C6H6O5S H2L (8129)
2,3-Dihydroxybenzenesulfonic acid;

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

Cu++ gl KNO3 25°C 0.10M C M K1=12.65 B2=22.50 1989DAa (44268)3957
K(CuA+L)=10.90
B(CuAL)=22.82

H2A: 8-hydroxyquinoline-5-sulfonic acid.

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

Cu++ gl KNO3 30°C 0.10M U K1=13.29 B2=23.52 1963Mnc (44274)3958

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

Cu++ gl NaClO4 25°C 0.20M U M K1=15.82 1991MBb (44350)3959
B(CuL(Tyr))=18.35
B(CuL(Trp))=19.96
B(CuL(Phe))=18.83

Cu++ gl NaClO4 30°C 0.20M U K1=13.82 B2=25.01 1990CBa (44351)3960

Cu++ gl KNO3 25°C 0.10M C M K1=12.17 B2=21.69 1989DAa (44352)3961
K(CuA+L)=10.34
B(CuAL)=22.26

H2A: 8-hydroxyquinoline-5-sulfonic acid.

Cu++ gl NaClO4 30°C 0.05M U TIH K1=13.80 B2=25.15 1986NDa (44353)3962
I=0.1, 40 C: K1=13.05, B2=23.67; 50 C: K1=12.92, B2=23.28
I=0.1, 30 C: K1=13.58, B2=24.77; I=0.2, 30 C: K1=13.25, B2=24.24

Cu++ gl NaClO4 25°C 0.10M C K1=13.41 B2=23.38 1985BCf (44354)3963

Cu++ gl KCl 30°C 0.10M U TIH K1=15.08 B2=28.77 1980BDe (44355)3964
Data for I=0.20 and 0.30 M. Data at 40 C. DH and DS values.
At I=0, K1=15.63, K2=14.04.

Cu++	gl	KCl	25°C	0.20M	U	M	K1=13.73	B2=25.08	1978SKa (44356)	3965
Cu++	gl	NaClO4	25°C	0.50M	C	I M	K1=13.06	B2=26.87	1975LAa (44357)	3966
Cu++	sp	NaClO4	25°C	0.10M	U	M	K1=14.28	B2=25.42	1973SHa (44358)	3967
							B(CuL(bpy))=22.39			
							B(CuL(phen))=23.44			
Cu++	gl	KNO3	25°C	0.10M	U		K1=14.23	B2=25.49	1969CMd (44359)	3968
Cu++	gl	KNO3	25°C	0.10M	U	M	K1=14.27		1966LMe (44360)	3969
							K(Cu(bpy)+L)=15.14			
Ternary complexes with TTHA										
Cu++	sp	NaClO4	25°C	0.10M	U	I	K1=14.43		19650Na (44361)	3970
							K(Cu+HL)=5.14			
							K2=10.93(I=0.35)			
Cu++	gl	KCl	20°C	0.10M	U		K1=14.53		1964PCa (44362)	3971
							K(Cu+HL)=5.48			
Cu++	gl	KNO3	30°C	0.10M	U		K1=13.99	B2=25.16	1963MNC (44363)	3972
Cu++	gl	NaClO4	25°C	1.0M	U		K1=12.76	B2=23.73	1960NAf (44364)	3973
Cu++	gl	oth/un	25°C	0.0	U		K1=15.62		1959NAa (44365)	3974
Cu++	gl	NaClO4	25°C	1.0M	U		K1=12.79		1959NAa (44366)	3975
Cu++	gl	KNO3	25°C	0.10M	U		K1=14.57		1957Mca (44367)	3976
							K(CuLOH+H)=7.2			
Cu++	gl	KCl	25°C	0.10M	U		K1=14.31		1956NAb (44368)	3977

C6H6O9		H4L							Ditartronic ac (8108)	
Di(2-Propane-1,3-dioic acid)ether;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.10M	C			K1=5.54	1984MMg (44529)	3978
								K(CuL+H)=3.56		

C6H7N		L							CAS 109-06-8 (320)	
2-Methylpyridine; C5H4N.CH3										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	25°C	0.50M	C			K1=1.62	2002KSb (44558)	3979

Cu++ gl oth/un 25°C 0.10M M M K1=7.95 B2=14.95 2000MOa (44559)3980
B(CuLA)=18.47

Medium: NaOH. A: 2,2'-Dipicolylamine.

Cu++ vlt NaClO4 RT 0.50M C K1=3.30 B2= 6.40 1989CDd (44560)3981
B3=9.32

Method: polarography. Temperature not stated.

Cu++ gl KNO3 25°C 0.61M U K1=1.69 B2=2.8 1967SBd (44561)3982

Cu++ gl NaClO4 25°C 0.10M U K1=1.3 1964KSb (44562)3983

Cu++ gl oth/un 25°C 1.30M U K1=1.75 B2=2.65 1964PAb (44563)3984
Medium: 1.3 M NaNO3+picoline HNO3

Cu++ gl KCl 20°C 0.20M U K1=1.16 B2=1.85 1960HOb (44564)3985

Cu++ sp non-aq 20°C 100% U M 1959GRb (44565)3986
K(CuA2+L)=0.69

Medium: cyclohexane. HA=acetylacetone

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

Cu++ gl NaNO3 25°C 0.50M C K1=2.78 2002KSb (44632)3987

Cu++ sp non-aq 25°C 100% C H K1=5.97 B2=10.87 2000KKb (44633)3988
3.93
3.02

Medium: MeCN, 0.10 M Et4NClO4. DH(K1)=-43 kJ mol⁻¹, DS=-32 J K⁻¹ mol⁻¹;
DH(K2)=-38, DS=-34; DH(K3)=-29, DS=-23; DH(K4)=-21, DS=-12.

Cu++ sp NaClO4 25°C 1.00M C M 1994PMb (44634)3989
K(CuA+L)=2.26

A=Tris(2-aminoethyl)amine (tren)

Cu++ gl KNO3 25°C 0.50M U K1=2.78 B2=4.97 1978LRb (44635)3990
B3=6.58
B4=7.60
B5=8.03
B6=8.86

Cu++ oth non-aq 27°C 100% U T M 1974HTa (44636)3991
K(CuA2+L)=-0.31

Medium: benzene. A=Diethyldithiocarbamate. Method: EPR. At 2 C: K=0.041;
62 C: K=-0.7

Cu++ gl KNO3 25°C 0.61M U K1=2.70 B2=4.72 1967SBd (44637)3992

B3=6.12

B4=6.9

Cu++ gl NaClO4 25°C 0.10M U K1=2.77 1964KSb (44638)3993

Cu++ gl oth/un 25°C 1.30M U K1=2.76 B2=4.69 1964PAb (44639)3994
K3=1.44
K4=0.90

Medium: 1.3 M NaNO3+picoline HNO3

Cu++ gl KCl 20°C 0.10M U K1=9.0 B2=15.9 1960HOb (44640)3995

C6H7N L gamma-Picoline CAS 108-89-4 (325)
4-Methylpyridine; C5H4N.CH3

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

Cu++ sp non-aq 25°C 100% C H K1=5.08 B2= 9.06 2000KKb (44728)3996
3.62
3.40

Medium: MeCN, 0.10 M Et4NClO4. DH(K1)=-45.3 kJ mol⁻¹, DS=-55 J K⁻¹ mol⁻¹;
DH(K2)=-42, DS=-65; DH(K3)=-40, DS=-66; DH(K4)=-28, DS=-27.

Cu++ gl NaClO4 25°C 0.20M U M K1=2.93 B2= 5.16 1991UBa (44729)3997
K(Cu(ida)L)=12.21
K(CuAL)=11.22

H2A is pyridine-2,6-dicarboxylic acid.

Cu++ vlt NaClO4 RT 0.50M C K1=3.30 B2= 6.18 1989CDd (44730)3998
B3=9.64

Method: polarography. Temperature not stated.

Cu++ gl KNO3 25°C 1.00M U K1=2.86 B2=5.14 1979LRa (44731)3999
B3=6.84
B4=7.96

Cu++ cal non-aq 30°C 100% U H 1976AGb (44732)4000

K(CuA2+L)=0.08

K(CuB2+L)=0.04

K(CuC2+L)=0.52

K(CuD2+L)=0.11

In Benzene. HA=N-methyl-2-hydroxybenzaldimine. HB=N-butyl-; HC=N-4-fluoro-
phenyl-; HD=N-para-methoxyphenyl-. Also N-phenyl-, and other benzaldimines

Cu++ cal non-aq 30°C 100% U H 1974GOb (44733)4001

K(CuA2+L)=3.17

In benzene. HA=1,1,1-trifluoropentane-2,4-dione. DH=-30.7 kJ mol⁻¹; DS=-41

Cu++ oth non-aq 27°C 100% U T M 1974HTa (44734)4002

K(CuA2+L)=-0.21

Cu++ sp NaClO4 25°C 0.20M U 1991CCb (44854)4013

K(CuA+L=CuAL)=0.73

A is rac-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane

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

Cu++ gl diox/w 25°C 20% C I K1=8.42 B2=15.00 2004DKb (44899)4014
Medium: 20% v/v dioxane/H2O, 0.10 M NaClO4. Also data for 40 and 60%.

Cu++ gl NaClO4 25°C 0.20M U M K1=8.36 1991MBb (44900)4015
B(CuL(Tyr))=15.19
B(CuL(Trp))=15.88
B(CuL(Phe))=14.86

Cu++ gl diox/w 30°C 50% U M 1990DSc (44901)4016
B(CuL(NTA))=7.36
B(CuL(IMDA))=5.77

Cu++ dis alc/w 30°C 20% U Keff=6.69 1989SBa (44902)4017

At pH 7.24 using HPLC, with 20% methanol-water-ammonium acetate mobile phase

Cu++ gl KNO3 30°C 0.10M U M K1=8.03 B2=15.49 1989SRd (44903)4018
K(CuA+L)=7.34
B(CuLA)=14.76
K(CuC+L)=7.33
B(CuCL)=15.26

HA=4-amino-5-mercapto-1,2,4-triazole, HC=4-amino-5-mercapto-3-methyltriazole

Cu++ gl KNO3 25°C 0.10M U M K1=7.81 B2=14.73 1988NSb (44904)4019
B(CuLA)=13.51

H2A=malonic acid

Cu++ gl KNO3 25°C 0.10M U M K1=7.81 B2=14.73 1984Vsa (44905)4020
B(CuLA)=7.35
K(CuA+L)=3.86
K(CuL+A)=-0.46

H2A=phthalic acid

Cu++ dis NaClO4 25°C 1.00M C K1=8.08 B2=14.60 1975BGb (44906)4021

Cu++ gl NaClO4 25°C 0.10M U M K1=8.49 B2=15.52 1975SPa (44907)4022
B(CuAL)=16.18 A=bipyridyl
K(CuA+L)=8.18
K(CuL+A)=7.69

Cu++ gl NaClO4 25°C 0.10M U K1=8.49 B2=15.52 1975SPb (44908)4023

B(CuL(bpy))=16.18
 K(Cu(bpy)+L)=8.18
 K(CuL+bpy)=7.69

```
-----
Cu++      gl  none  20°C  0.0  U      K1=8.77  B2=16.14  1961PEb (44909)4024
-----
Cu++      gl  none  20°C  0.0  U      K1=8.8   B2=16.1   1959SIb (44910)4025
-----
Cu++      gl  diox/w 25°C  50%  U      K1=9.25  B2=17.72  1952FCa (44911)4026
*****
C6H7NO          L          CAS 586-98-1 (3094)
2-Hydroxymethylpyridine (2-pyridylmethanol); C5H4N.CH2.OH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  NaNO3  20°C  1.00M U      K1=3.79  B2=6.69   1973PEa (44949)4027
B3=8.58
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-----
Cu++      vlt NaNO3  20°C  1.00M U      K1=3.72  B2=6.70   1973PEa (44950)4028
B3=8.40
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-----
Cu++      sp  NaNO3  20°C  1.00M U      K1=3.75  B2=6.70   1973PEa (44951)4029
-----
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-----
Cu++      vlt NaNO3  20°C  1.00M U      1973PEa (44952)4030
K(Cu+2H-1L=CuH-2L2)=23.0
-----
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```
-----
Cu++      gl  KNO3   25°C  0.16M U      K1=3.56  B2=6.23   1967SBd (44953)4031
B3=8.00
B4=8.3
-----
```

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-----
Cu++      gl  KNO3   25°C  0.10M U  I      K1=3.41  B2=6.22   1965MTa (44954)4032
K(CuH-1L+H)=5.5
K(CuL(H-1L)+H)=5.55
K(Cu(H-1L)2+H)=6.36
-----
```

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-----
Cu++      gl  diox/w 25°C  50%  U  T  H      1964LKa (44955)4033
K(Cu+H-1L)=10.19
K(Cu+2(H-1L))=19.11
Med.:50% dioxan. K=10.45(0 C),10.22(15 C); K'=20.02(0 C),19.36(15 C).
At 25 C:DH=-61 kJ mol-1,DS=163 J K-1 mol-1; By calorimetry:DH=97.4,DS=39.3
-----
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-----
Cu++      gl  oth/un 25°C  0.01M U      K1=9.6    1955LFa (44956)4034
*****
C6H7NO          L  Pyridylcarbinol CAS 100-55-0 (2036)
3-(Hydroxymethyl)azine; C5H4N.CH2OH
-----
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KNO3   25°C  0.50M U      K1=2.46  B2=4.33   1981LRa (44973)4035
B3=5.63
-----
```

B4=6.35

Cu++	vlt	NaNO3	20°C	0.50M	U			B2=4.45		1973PEa (44974)4036
Cu++	gl	NaNO3	20°C	0.50M	U			K1=2.49 B3=5.8 B4=6.8	B2=4.37	1973PEa (44975)4037
Cu++	sp	NaNO3	20°C	0.50M	U			K1=2.53	B2=4.40	1973PEa (44976)4038
Cu++	gl	KNO3	25°C	0.61M	U			K1=2.43 B3=5.0 B4=6	B2=4.17	1967SBd (44977)4039

C6H7NO L CAS 586-95-8 (1476)
4-(Hydroxymethyl)pyridine; C5H4N.CH2OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	U			K1=2.66 B3=6.03	B2=4.65	1987KLb (44999)4040
Cu++	gl	KNO3	25°C	0.61M	U			K1=2.65 B3=5.7 B4=6	B2=4.53	1967SBd (45000)4041

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	diox/w	25°C	75%	U	I		K1=4.14 K3=3.46	B2=7.92	1968CSa (45031)4042

Medium: 75% dioxan, 0.08 M KCl

I=0.04: K1=4.25, K2=3.88, K3=3.47; I=0.15: K1=4.05, K2=3.68, K3=3.42

C6H7NO2 HL CAS 19365-01-6 (2311)
3-Hydroxy-1-methylpyridin-4(1H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	37°C	0.15M	C	M				1980SHb (45036)4043
B(CuL(gly))=16.27; B(CuL(his))=18.68; B(CuL(Hhis))=22.58.										
Cu++	gl	KNO3	37°C	0.15M	C			K1=9.35 K(CuL+H)=1.6	B2=16.93	1979SPd (45037)4044

C6H7NO2 HL CAS 19167-98-7 (5591)
Pyrrole-1-ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	diox/w	25°C	50%	C	M		K1=2.73 K(Cu(phen)+L)=3.07	1985BSd (45053)	4045

Medium: 50% v/v dioxan/H2O, 0.1 M NaClO4

 C6H7N03S HL CAS 88-21-1 (7102)
 2-Aminobenzenesulfonic acid, Aniline-2-sulfonic acid; H2N.C6H4.S03H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaCl	25°C	0.15M	C			B(CuLHis)=17.01	1995LMc (45058)	4046

 C6H7N04S H2L CAS 3343-41-7 (3711)
 1-Hydroxy-1-(2'-pyridyl)methanesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U			K1=9.43 B2=17.00	1964BGa (45073)	4047

 C6H7N04S H2L CAS 4812-14-0 (3712)
 1-Hydroxy-1-(3'-pyridyl)methanesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U			K1=7.81 B2=14.79	1964BGa (45078)	4048

 C6H7N2Cl L (4365)
 4-Chloro-1,2-phenylenediamine; Cl.C6H3(NH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KN03	25°C	0.10M	U			K1=3.32 B2=5.76	1971Kta (45091)	4049

 C6H7N3O HL CAS 71933-05-6 (5375)
 Pyridine-2-carboxamide oxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaCl	25°C	0.10M	C			K(CuHL+HL)=4.72 *K(CuH2L2)=-4.61	19960Sa (45093)	4050

 C6H7N3O L CAS 1452-63-7 (3097)
 Pyridine-2-carboxylic acid hydrazide; C5H4N.CO.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	oth/un	20°C	0.01M	U			K1=12.4 B2=21.5	1956ARd (45096)	4051

C6H7N3O L CAS 553-53-7 (4361)
Pyridine-3-carboxylic acid hydrazide; C5H4N.CO.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	KNO3	20°C	0.10M	U			K1=8.89 B2=16.58	1970Z0b	(45102)4052

Cu++	gl	oth/un	20°C	0.01M	U			K1=8.7 B2=16.2	1956ARd	(45103)4053
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C6H7N3O L Isonicotinic hy CAS 54-85-3 (1267)
Pyridine-4-carboxylic acid hydrazide; C5H4N.CO.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	none	20°C	0.0	U			K(Cu+HL)=2.16	1992CGc	(45113)4054

Cu++	gl	NaCl	37°C	0.15M	C	M		K1=9.08 B(CuHL)=13.44 B(CuH2L)=15.29 B(CuHL2)=22.22 B(CuH2L2)=26.05	1983CMA	(45114)4055
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B(Cu(his)L)=18.85, B(CuH(his)L)=23.07, B(CuH2(his)L)=26.88.

Cu++	sp	KNO3	20°C	0.10M	U			K1=8.06 B2=14.61	1970Z0b	(45115)4056
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Cu++	gl	oth/un	20°C	0.01M	U			K1=8.0	1956ARd	(45116)4057
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Cu++	sp	oth/un	?	?	U			K(CuL2(OH)2+2H=Cu+2L)=3.37	1953FEa	(45117)4058
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C6H7N3O2 L CAS 2411-74-7 (8511)
2-(2-Furanylmethylene)hydrazine carboxamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	non-aq	25°C	100%	C			K1=2.02	2000IBa	(45133)4059

Medium: ethanol.

C6H7N3O2I2 HL (7181)
2,5-Diiodo-histidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	25°C	0.50M	C			K1=7.13 B(CuH-1L)=2.21 B(CuH-1L2)=6.41 B(CuH-2L2)=-1.42	1994WCa	(45135)4060

C6H7N3O4 H2L CAS 54784-33-7 (6082)
1,3-Dimethyl-5-nitroso-barbituric acid; 1,3-Dimethylvioluric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	25°C	0.50M	C			K1=4.67 B2= 7.95	1984HNb (45143)	4061
Cu++	gl	NaNO3	25°C	0.50M	C	M		K1=4.67 B2=7.95	1980VNa (45144)	4062
Cu++	gl	NaNO3	25°C	0.50M	C			K1=4.66 B2=7.94	1977VNa (45145)	4063

C6H7N3O4 H2L CAS 74003-47-7 (8382)
Monoethylvioluric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	25°C	0.50M	C			K1=4.42 B2= 7.54	1984HNb (45154)	4064

C6H7N5 L 7-Methyladenine CAS 935-69-3 (4346)
7-Methyl-6-aminopurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.05M	U			K1=2.7 B4=5.95	1969RWa (45161)	4065

C6H7N5 L CAS 84602-80-2 (5789)
8-Amino-9-methylpurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	dis	NaClO4	25°C	1.00M	U			K1=2.3	1985A0a (45163)	4066

C6H7N5 HL 9-Methyladenine CAS 700-00-5 (4347)
9-Methyl-6-aminopurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	dis	NaClO4	25°C	1.00M	U			K1=1.26	1985A0a (45169)	4067
Cu++	sp	NaClO4	25°C	0.05M	U			K1=1.7	1969RWa (45170)	4068

C6H7N5O HL 9-Methylguanine CAS 5502-78-3 (6661)
9-Methyl-2-amino-6-hydroxypurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	25°C	0.10M	M			K1=4.2 K(Cu+HL)=2.37 *K(CuHL)=-7.7	1999SSb (45174)	4069

Cu++ gl KNO3 25°C 0.10M C K1=8.47 B2=14.61 2000Cmb (45249)4078
 B(CuHL)=11.93
 B(CuHL2)=19.34
 B(CuH-1L2)=6.01
 B(CuH-2L2)=-5.32

C6H8NO4P H2L CAS 65128-80-5 (7728)
 Hydroxy-3-pyridylmethylphosphonic acid;

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

Cu++ gl KNO3 25°C 0.10M C K1=5.00 B2= 8.17 2000Cmb (45251)4079
 B(CuHL)=10.42
 B(CuH-1L2)=1.24

C6H8N2 L CAS 95-54-5 (2899)
 1,2-Diaminobenzene, 1,2-Phenylenediamine; C6H4(NH2)2

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

Cu++ gl NaClO4 25°C 0.20M U M K1=4.44 1991MBb (45260)4080
 B(CuL(Tyr))=12.53
 B(CuL(Trp))=13.43
 B(CuL(Phe))=12.31

Cu++ gl KNO3 30°C 0.10M U M K1=4.62 B2=8.16 1989SRd (45261)4081
 B(CuLA)=10.46
 B(CuLC)=10.98

HA=4-amino-5-mercapto-1,2,4-triazole, HC=4-amino-5-mercapto-3-methyltriazole

Cu++ gl NaClO4 25°C 0.10M C M K1=4.47 B2= 7.92 1980ACb (45262)4082
 B(CuL(succinate))=6.67
 B(CuL2(succinate))=10.07
 B(CuHL2(succinate))=15.4

Also data for ternary complexes with malonate, maleate, oxalate, oxydiethanoate, thiodiethanoate, iminodiacetate, acetate and dipicolinate.

Cu++ gl KNO3 20°C 0.10M C T H K1=4.92 B2=10.17 19800Ma (45263)4083
 K3=4.14

DH(K1)=-36.2 kJ mol⁻¹; DS=-30.2 J K⁻¹ mol⁻¹; DH(K2)=-64.0; DS=-117.8
 DH(K3)=-39.0; DS=-54. Data up to 32 C

Cu++ gl NaClO4 25°C 0.10M U K1=4.44 B2=7.86 1975SPb (45264)4084
 B(CuL(bpy))=11.26
 K(Cu(bpy)+L)=3.26
 K(CuL+bpy)=6.82

 Cu++ gl KNO3 25°C 0.10M U K1=4.55 B2=7.72 1971Kta (45265)4085

C6H8N2 L CAS 108-45-2 (6105)

1,3-Diaminobenzene, 1,3-Phenylenediamine; C6H4(NH2)2

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KNO3   20°C 0.10M C T H      K1=3.98  B2=7.16  19800Ma (45273)4086
                                   K3=2.72
DH(K1)=-57.9 kJ mol-1; DS=-141 J K-1 mol-1; DH(K2)=-29.8; DS=-57
DH(K3)=-32.1; DS=-71.2. Data up to 32 C
*****
C6H8N2      L      Diaminobenzene  CAS 106-50-3 (2869)
1,4-Phenylenediamine; H2N.C6H4.NH2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KNO3   20°C 0.10M C T H      K1=3.95  B2=7.41  19800Ma (45277)4087
                                   K3=3.03
DH(K1)=-38.9 kJ mol-1; DS=-57.0 J K-1 mol-1; DH(K2)=-36.9; DS=-59.4;
DH(K3)=-40.6; DS=-80.9. Data up to 32 C
*****
C6H8N2      L      CAS 31410-01-2 (7717)
1-Allylimidazole;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KNO3   25°C 0.50M C      K1=4.15  B2= 7.70  2000KGc (45281)4088
                                   B3=10.62
                                   B4=13.16
                                   B5=14.24
*****
C6H8N2      L      2-Picolylamine  CAS 29722-36-9 (502)
2-(Aminomethyl)pyridine; C5H4N.CH2NH2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  NaNO3  25°C 0.10M M      K1=9.69  B2=16.90  2002SKa (45305)4089
-----
Cu++      cal NaCl  25°C 0.15M C  H      K1=9.82  B2=17.50  1987ENa (45306)4090
DH(K1)=-49.6 kJ mol-1, DS=22 J K-1 mol-1; DH(B2)=-100, DS=1
-----
Cu++      gl  NaNO3  20°C 1.00M C      K1=10.02 B2=18.15  1978CPa (45307)4091
                                   B(Cu2L2(OH)2)=36.1
                                   B(CuL2(OH))=19.6
                                   B(CuL(OH)2)=18.65
-----
Cu++      gl  NaNO3  20°C 1.00M C      K1=10.02 B2=18.15  1974CPa (45308)4092
Alternative methods: Spectrophotometry and Polarography
-----
Cu++      EMF NaNO3  20°C 0.10M U      K1=9.40  B2=17.20  1971ANa (45309)4093
-----
Cu++      gl  NaClO4 25°C 0.10M U  M      K1=9.72  B2=17.47  1971HGc (45310)4094
-----
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B(CuLA)=23.57

H2A=catechol

Cu++ gl NaClO4 25°C 0.30M C H K1=9.34 B2=17.27 1967HWa (45311)4095
By calorimetry DH(K1)=-41.5 kJ mol⁻¹, DH(K2)=-41.6

Cu++ vlt diox/w 25°C 50% U H B2=15.47 1966WRb (45312)4096
Medium: 50% dioxan, 0.1 M KNO₃. By glass electrode: B2=15.68
By calorimetry: DH(B2)=-90.3 kJ mol⁻¹, DS=-2.5 J K⁻¹ mol⁻¹

Cu++ gl KNO₃ 25°C 0.10M U K1=9.5 1964LMb (45313)4097

Cu++ gl KNO₃ 25°C 0.10M U K1=9.5 1964LMb (45314)4098

Cu++ gl oth/un 25°C .015M U K1=9.3 B2=17.2 1960HJa (45315)4099

Cu++ gl oth/un 20°C ->0 U T H K1=9.64 B2=17.62 1959GFa (45316)4100
DH(K1)=-40.2 kJ mol⁻¹, DS=46 J K⁻¹ mol⁻¹; DH(K2)=-37.6, DS=25.1
10 C: K1=9.90, K2=8.26; 30 C: K1=9.45, K2=7.80; 40 C: K1=9.17, K2=7.58

C6H8N2 L CAS 1603-40-3 (3648)
2-Amino-3-methylpyridine (2-Amino-3-picoline)

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

Cu++ gl KNO₃ 25°C 0.61M U K1=1.91 1967SBd (45362)4101

C6H8N2 L CAS 2851-95-8 (4349)
2-Methyl-1-vinylimidazole;

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

Cu++ gl KNO₃ 25°C 0.50M C K1=3.20 B2= 5.80 2000KGa (45370)4102
B3=7.80
B4=9.20

C6H8N2 L 3-Picolylamine CAS 3731-51-9 (6095)
3-(Aminomethyl)pyridine;

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

Cu++ gl NaNO₃ 20°C 1.00M C K1=1.97 B2=3.32 1978CPa (45377)4103
By polarography, K1=1.8, B2=3.4

C6H8N2O2 HL CAS 1074-59-5 (3099)
3-(4-Imidazolyl)propanoic acid;

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

Cu++ gl KNO₃ 25°C 0.16M U K1=4.46 B2=8.49 1970MBb (45389)4104

 Cu++ gl KNO3 25°C 0.20M U K1=4.56 B2=8.45 1963CCb (45390)4105

 C6H8N2O3S HL CAS 20349-92-2 (4399)
 d-Tetranorbiotin;

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

Cu++ gl diox/w 25°C 50% U M K1=2.89 1969SMc (45402)4106
 K(CuL+bpy)=3.01

Medium: 50% dioxan, 0.1 M NaClO4

C6H8N2O4 H2L (3100)
 Cyanomethyliminodiethanoic acid; NC.CH2.N(CH2.COOH)2

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

Cu++ gl KCl 20°C 0.10M U K1=7.45 B2=11.91 1955SAa (45409)4107

C6H8N2O6 H2L (6576)
 Oxamide-N,N'-diethanoic acid; HOOC.CH2.NH.CO.CO.NH.CH2.COOH

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

Cu++ gl NaNO3 25°C 0.10M C 1992LSb (45421)4108
 K(Cu+H2L)=2.62
 K(2Cu+H2L=Cu2L+2H)=-2.18
 B(Cu2L)=22.0

C6H8N3O2I HL (7180)
 5-Monoiodo-histidine;

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

Cu++ gl NaNO3 25°C 0.50M C K1=9.04 B2=15.90 1994WCa (45428)4109
 B(CuH-1L2)=7.10
 B(CuH-2L2)=-2.83

C6H8N4B- L (7237)
 Bis(pyrazol-1-yl)borate; (C3H3N2)2BH2-

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

Cu++ dis non-aq 25°C 100% U 1996KSa (45434)4110
 K(Cu+2HL=CuL2(org)+2H)=6.21

By solvent extraction into CHCl3

C6H8O2 HL CAS 765-70-8 (8322)
 3-Methylcyclopentane-1,2-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	30°C	0.10M	U	HM		K1=5.45 B2=10.21	1994RSa (45446)	4111

B(Cu(ala)L)=13.23
 B(Cu(val)L)=13.17
 B(Cu(en)L)=15.63
 B(Cu(bpy)L)=13.23

DH(K1)=-18.3 kJ mol⁻¹, DS=43.9. B(CuAL)=9.73, B(CuBL)=17.37, K(Cu(ala)+L)=5.08, K(Cu(bpy)+L)=5.16, K(CuA+L)=4.91. H2A=oxalic acid, H2B=catechol.

C6H8O4 H2L CAS 2583-25-7 (958)
 2-Allylpropanedioic acid; HOOC.CH(CH2.CH:CH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C			K1=4.66	1975IPa (45458)	4112

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U	M		K1=4.98 B2=8.45	1980Gmb (45491)	4113

B(CuHL)=9.85
 B(CuLA)=14.04

A=histamine

Cu++	cal	NaClO4	25°C	0.10M	C	H			1977ACa (45492)	4114
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DH1=10.9 kJ mol⁻¹, DS1=132 J K⁻¹ mol⁻¹, DH(Cu+L+bpy)=-36.4 kJ mol⁻¹

Cu++	gl	NaClO4	25°C	0.10M	C	M		B(Cu(bpy)L)=14.28	1975BMd (45493)	4115
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Cu++	gl	KNO3	25°C	0.10M	U			K1=5.01 B2=8.12	1969Pjb (45494)	4116
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Cu++	gl	NaClO4	25°C	0.10M	U			K1=5.02 B2=8.49	19660Cb (45495)	4117
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K(Cu+HL)=1.37

C6H8O4Se H2L (3691)
 cis-Tetrahydroselephenone-2,5-dicarboxylic acid; C4H6Se(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U			K1=3.8 B2=7.40	1968SNa (45524)	4118

C6H8O5 H2L (3067)
 Dimethyloxosuccinic acid; HOOC.C(CH3)2.CO.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++ gl oth/un 25°C ->0 U K1=3.7 1958GHc (45533)4119

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

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

Cu++ gl KCl 25°C 0.20M C K1=3.35 1996KJa (45548)4120
B(CuHL)=8.03
B(CuH2L)=11.53
B(CuH-1L)=-3.34
B(Cu2L)=4.87

Cu++ gl NaClO4 20°C 0.10M U K1=3.70 1964COb (45549)4121
K(Cu+HL)=2.57
K(Cu+H2L)=1.40
K(Cu+CuL)=1.60

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

Cu++ gl KNO3 30°C 0.10M C M 1984BPc (45599)4122
K(Cu(phen)+L)=8.45
K(Cu(bpy)+L)=8.35
K(Cu(en)+L)=6.57
K(Cu(baea)+L)=7.08

K(Cu(dipropylenetriamine)+L) = 5.73; baea=bis(aminoethyl)amine

Cu++ kin NaClO4 25°C 1.00M U T 1984DAa (45600)4123
K(Cu+HL)=1.61
K(Cu+H+HL)=4.71

Cu++ kin none 25°C 0.0 C T H 1984Mza (45601)4124
K(Cu+HL)=1.54

Method: stopped flow spectrophotometry. DH(Cu+HL)=30 kJ mol⁻¹.
Data for 20, 30 and 35 C.

Cu++ gl KNO3 25°C 0.10M M 1976JBa (45602)4125
K(Cu+HL)=2.32
K(Cu+H+HL)=3.94
K(2Cu+2HL=Cu2H2L2)=6.33
K(2Cu+2HL=Cu2L2+2H)=0.05

From kinetics data, K(Cu+HL)=2.4, K(Cu+H+HL)=4.2.

Cu++ gl KNO3 0°C 0.10M U 1962TAc (45603)4126
K(Cu+HL)=1.57

C6H8O6S H3L CAS 99-68-3 (3692)

(Carboxymethylthio)butanedioic acid; $\text{HOOC.CH(S.CH}_2\text{.COOH).CH}_2\text{.COOH}$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	30°C	0.10M	M	I		K1=4.90	1985ARc (45674)	4127
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=8.98.										
Cu++	gl	NaClO4	30°C	0.10M	U	I		K1=4.90	1983ASa (45675)	4128
Cu++	gl	KNO3	20°C	0.10M	U			K1=4.80 K(Cu+HL)=3.25	1977CAAd (45676)	4129

Cu++ gl KNO3 25°C 0.05M M K1=5.22 1975DPb (45677)4130

 C6H8O7 H3L Isocitric acid CAS 1637-73-6 (2527)
 2-Hydroxy-3-carboxypentanedioic acid; $\text{HOOC.CH(OH).CH(COOH).CH}_2\text{.COOH}$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C	M		K1=5.20 B(CuHL)=8.94 B(CuH-1L)=-0.77 B(CuL(phen))=21.16 B(CuL(bpy))=17.29	1978DAc (45725)	4131

 C6H8O7 H3L Citric acid CAS 77-92-9 (95)
 2-Hydroxypropane-1,2,3-tricarboxylic acid; $\text{HOOCCH}_2\text{.CH(OH)(COOH).CH}_2\text{COOH}$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	C			B(CuHL)=9.29 B(Cu2L2)=14.10 B(Cu2H-1L2)=10.43 B(Cu2H-2L2)=5.71	1996KJa (45853)	4132

Cu++ gl NaClO4 25°C 0.50M C K1=5.67 1995PLa (45854)4133
 B(CuH2L)=11.93
 B(Cu2H-2L2)=5.61

Cu++ gl KNO3 25°C 0.10M M M K1=4.532 1993AEa (45855)4134

Cu++ gl KNO3 25°C 0.1M U K(2Cu+L)=8.1 1992MDb (45856)4135

Cu++ gl NaNO3 25°C 0.50M M M 1989MAa (45857)4136
 K(Cu+H3L=CuH-1L+4H)=-5.7
 K(2CuH-1L=Cu2H-2L2)=-13.9

K(UO2+Cu+2H3L=CuUO2H-2L2+8H)=1.41

Cu++ gl KNO3 25°C 0.10M C T H 1988D0a (45858)4137

B(CuNiH-2L2)=1.58

B(CuZnH-2L2)=1.59

B(CuCdH-2L2)=0.33

Also data at 10, 35 and 45 C. DH(CuNiH-2L2)=39 kJ mol⁻¹, DS=160 J K⁻¹ mol⁻¹
DH(CuZnH-2L2)=64, DS=245; DH(CuCdH-2L2)=52; DS=180.

Cu++ vlt NaClO4 30°C 1.0M C K1=5.93 1988GMb (45859)4138

Method: polarography. Medium pH 5.0.

Cu++ gl KNO3 25°C 0.10M C M 1987DZa (45860)4139

B(CuHL)=9.55

B(Cu2H-1L)=4.92

B(Cu2H-1L2)=10.85

ternary complexes: B(CuLA) DOPA =15.31; Dopamin =15.51; Noradrenalin=14.85
Dhpp = 13.64; B(CuH-1LA) DOPA=24.38; Dopamin =7.85; Noradr=7.36; Dhpp=5.53

Cu++ sp KNO3 25°C 0.10M U M 1984BSc (45861)4140

B(CuNiH-2L2)=1.37

B(CuMgH-2L2)=-1.1

Cu++ gl KNO3 25°C 0.25M C T H 1984D0a (45862)4141

B(CuHL)=9.75

B(Cu2L2)=14.77

B(Cu2H-1L2)=11.36

B(Cu2H-2L2)=6.20

Data for 10-45 C. B(Cu2H-1L)=5.16. DH(CuHL)=8.0 kJ mol⁻¹, DH(Cu2L2)=41,
DH(Cu2H-1L2)=38, DH(Cu2H-2L2)=44, DH(Cu2H-1L)=29.0.

Cu++ ISE NaNO3 25°C 0.10M U 19830Wa (45863)4142

K(2Cu+2HL=Cu2L2+2H)=5.2

Cu++ gl KNO3 25°C 0.10M C 1980SWa (45864)4143

B(Cu2H-2L2)=5.80

B(Cu2H-1L2)=10.82

B(Cu2H-1L)=5.07

Method: pH and pCu measurements.

Cu++ gl KNO3 25°C 0.10M C M 1975D0a (45865)4144

B(CuHL)=9.47

B(Cu2L2)=14.60

B(2Cu+2L+OH=Cu2L2OH)=10.75

B(2Cu+2L+2OH=Cu2L2(OH)2)=6.00

B(CuH2L(bpy))=19.87, B(CuHL(bpy))=17.86, B(CuL(bpy))=14.07.

K(bpy+H)=4.41, K(Hbpy+H)=1.1

Cu++ gl KNO3 25°C 0.10M U 1974FMa (45866)4145

B(CuHL)=9.31

B(Cu2L2)=14.72

B(CuH-1L)=1.61

Cu++ sp NaNO3 25°C 0.50M C K1=5.949 B2=8.092 1974RKc (45867)4146
B(CuH2L)=11.340
B(CuHL)=8.68
B(CuH-1L)=2.16

Alternative method: Glass electrode

Cu++ oth NaNO3 25°C 0.50M U K1=5.95 B2=8.09 1973KPb (45868)4147
B(CuHL)=8.68
B(CuH2L)=11.34
K(Cu+L=CuH-1L+H)=2.16

Method: polarimetry

Cu++ oth KNO3 ? 0.70M U 1970BCa (45869)4148
K(Cu+H3L=CuHL+2H)=-3.85
K(CuHL=CuH-1L+2H)=-8.6

Method: zone electrophoresis

Cu++ gl KNO3 25°C 1.0M U 1967Rmb (45870)4149
B(Cu2L2)=13.2
K(Cu2(H-1L)2+2H=Cu2L2)=8.03

Cu++ gl NaClO4 20°C 0.10M U K1=5.90 1964COb (45871)4150
K(Cu+HL)=3.42
K(Cu+H2L)=2.26
K(CuH-1L+H)=4.34
B(Cu2L)=8.10

K(CuL+Cu=Cu2H-1L+H)=-0.87

Cu++ gl KNO3 32°C 0.25M U 1960DPa (45872)4151
K(Cu+H3L=CuHL+2H)=-3.3
K(CuL+H)=3.4
K(CuH-1L+H)=4.5

Cu++ gl KNO3 25°C 2.0M U 1958MSb (45873)4152
K(Cu+H-1L)=13.22

Cu++ gl NaClO4 20°C 4.0M U I B2=8.4 1957LEa (45874)4153
B(CuH2L2)=15
In 1 M NaClO4 K1=5.2, B(Cu2L2)=12.8, B(Cu2L2(OH)2)=33.2

Cu++ sp oth/un ? ? U K1=3.09 1956HDa (45875)4154
By ion exchange K1=3.95

Cu++ gl NaNO3 5°C 0.10M U T 1953Wwa (45876)4155
K(CuL+2H)=6.12
K(CuH2L+H=Cu+H3L)=0.7
K(CuH-1L+H)=4.46
K(Cu+H-1L)=18

K(Cu+L=CuH-1L+H).30 C: K(CuL+2H)=6.00, K(CuH-1L+H)=4.35, K(Cu+L=CuH-1L+H)=2.15

 Cu++ EMF oth/un 25°C ->0 U 1952PDa (45877)4156
 K(Cu+HL+H2L=CuH3L2)=7.3
 K(Cu+2H2L=CuH3L2+H)=2.3

Cu++ oth oth/un 25°C 0.05M U 1952SUC (45878)4157
 K(Cu+H3L=CuHL+2H)=-3.47

Cu++ vlt oth/un 25°C ? U 1950MEa (45879)4158
 K(Cu+H2L=CuL+2H)=-3.08
 K(Cu+HL=CuL+H)=2.62

Cu++ vlt oth/un 25°C ->0 U K1=14.21? 1950MEb (45880)4159
 B(CuL2(OH)2)=19.3

 C6H9NO3 L (7130)
 1,6-Anhydro-3,4-epimino-b-D-altropyranose;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C			K1=2.36 B2=5.02 B(CuH-1L2)=-0.93	1996JLc (46350)	4160

C6H9NO3 H2L CAS 42346-68-9 (3693)
 2-Methyl-5-pyrrolidone-2-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U			K1=8.04	1965Nca (46352)	4161

C6H9NO6 H3L CAS 41035-84-1 (4367)
 N-Carboxymethyl-L-aspartic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	1.0M	U			K1=9.34 B2=11.39 B(CuHL)=13.82 K(Cu(OH)+L)=12.89	2004Nka (46366)	4162

For 0.5 mol/L KNO3 K1=10.34; B2=14.73; B(CuHL)=14.39; K(Cu(OH)+L)=13.29
 For 0.1 mol/L KNO3 K1=10.98; B2=15.82; B(CuHL)=15.07; K(Cu(OH)+L)=13.71

Cu++	sp	KNO3	25°C	0.1M	U			K1=12.80 K(Cu+HL)=10.80	1978GNa (46367)	4163
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Cu++	gl	KNO3	25°C	0.10M	U	M		K(CuL+Val)=4.24 K(CuL+D-Val)=4.39 K(CuL=Leu)=4.23 K(CuL+D-Leu)=4.37	1973SAe (46368)	4164
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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
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Cu++	oth	NaClO4	35°C	0.10M	U	M		K1=8.41 K(CuL+A)=5.28	1998GAc (46458)	4165
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Method: electrophoresis. Medium: 0.10 M HClO4, 0.01 M H2L
 H2A: penicillamine

Cu++	ISE	NaClO4	25°C	0.10M	C	I		K1=12.94	1997LBb (46459)	4166
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K1=12.18 (I=0.7 M), 12.0 (1.0), 12.17 (2.0), 12.41 (3.0), 13.24 (5.0).

Method: Cu ISE.

Cu++	gl	mixed	25°C	0.5M	U			K1=10.35 B2=14.36 K(Cu+OH+L)=16.59	1997SBb (46460)	4167
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Medium 0.5 M NaClO4 in 0.19 mol parts CH3CN in H2O

Cu++	gl	NaNO3	25°C	0.10M	M			K1=11.98	1996KSc (46461)	4168
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Cu++	vlt	NaNO3	25°C	3.00M	U			K1=13.4 B(CuLOH)=16.9	1994NVa (46462)	4169
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B(CuLOH)=16.3 from spectrophotometric measurements

Cu++	sp	KNO3	25°C	0.36M	U	I		K1=11.32 B2=17.34	1993PBb (46463)	4170
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In 50% v/v DMSO/H2O K1=13.81, B2=17.34

Cu++	gl	KNO3	35°C	0.20M	U	M			1992RKb (46464)	4171
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K(CuL+Gly)=5.35
 K(CuL+Ala)=4.96
 K(CuL+Val)=5.24
 K(CuL+Leu)=5.40

K(CuL+Phe)=5.05, K(CuL+Trp)=5.28, K(CuL+Ser)=5.10, K(CuL+Thr)=5.34,
 K(CuL+Met)=5.05, K(CuL+Asp)=5.20

Cu++	gl	KNO3	25°C	0.10M	C	M		K1=12.94 K(CuL+A)=5.28 B(CuLA)=18.22	1990DAb (46465)	4172
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H2A: salicylaldehyde

Cu++	gl	KNO3	25°C	0.10M	C	M		K1=12.94 K(CuL+A)=4.38 B(CuAL)=17.32	1990DAc (46466)	4173
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HL: benzohydroxamic acid

Cu++	gl	KNO3	25°C	1.0M	U	M		K1=12.06 K(Cu+H+L)=15.31	1990GSa (46467)	4174
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Cu++	ix	none	25°C	0.0	U				1989LIb (46468)	4175
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K1eff=8.64 at pH 6.8

K(CuL+OH)=4.20

Cu++ gl KNO3 25°C 0.10M U M 1980MCc (46482)4189

B(CuL(bpy))=12.2
K(CuL(bpy)+en)=2.8
K(CuL(bpy)+pn)=3.0
B(CuL(phen))=12.6

K(CuL(phen)+en)=2.4, K(CuL(phen)+pn)=3.0. pn=1,2-diaminopropane

Cu++ ISE KNO3 25°C 0.10M U T K1=12.97 1980Nwa (46483)4190

Cu++ ix KNO3 25°C 0.01M U K1=10.2 1979BKb (46484)4191

Cu++ gl KNO3 25°C 2.5M M K1=12.68 1979FLc (46485)4192

Cu++ ISE NaNO3 25°C 0.10M C M K1=13.19 1979STb (46486)4193

K(CuL+OH)=4.40
K(Cu(OH)L+OH)=3.08
K(CuL+ala)=5.63
K(CuL+pro)=6.14

Method: Cu ion selective electrode and glass electrode.

K(CuL+NH3)=2.55, K(CuL+P3010)=2.5, K(CuL+B-ala)=4.48, K(CuL+arginine)=5.40

Cu++ ISE KNO3 25°C 0.10M U T K1=12.94 1977GNb (46487)4194

K(Cu+HL)=10.38

Method: Cu/Hg-electrode

Cu++ gl NaClO4 25°C 0.10M U M 1975Vsa (46488)4195

B(CuH-1L(Gly))=5.26
B(CuH-1L(Ala))=5.18
B(CuH-1L(Val))=4.97
B(CuH-1L(Leu))=5.07

Cu++ EMF KNO3 25°C 0.10M U K2=4.39 1974HSa (46489)4196

K(CuL+OH)=4.6
K(CuL+H)=1.95

Cu++ oth NaClO4 25°C 0.20M U M 1973CBa (46490)4197

K(CuL+Gly)=5.61
K(CuL+Ala)=5.76
K(CuL+b-Ala)=5.03

Cu++ ISE oth/un 25°C 0.10M U K1=13.3 1973HAc (46491)4198

Cu++ ISE NaNO3 25°C 0.10M U 1972RGa (46492)4199

K(Cu+HL)=3.39

Cu++ ISE NaClO4 25°C 0.10M U M 1972Rmb (46493)4200

K(CuL+A)=7.35
K(CuL+B)=5.17

K(CuL+C)=5.12

K(CuL+D)=4.57

H2A=salicylic acid, H2B=meso-tartaric acid, H2C=dl-tartaric acid,
H3D=citric acid

Cu++ gl KNO3 25°C 0.10M U T M 1971ICa (46494)4201

K(CuL+Pro)=6.24

K(CuL+Gly)=5.26

15 C: K(CuL+Pro)=6.47; 70 C: K=5.02

Cu++ gl KNO3 25°C 0.10M U T M 1971ICb (46495)4202

K(CuL+A)=5.33

HA=piperidine-2-carboxylic acid. 15 C, K=5.56; 50 C, K=4.72; 70 C, K=4.38

Cu++ gl KNO3 25°C 0.10M U T M 1971ICc (46496)4203

K(Cu(OH)L+H)=9.14

K(CuL+A)=5.29

HA=1-aminocyclopentanecarboxylic acid

K(Cu(OH)L+H)(15 C)=9.43, (70 C)=8.42; K(CuL+A)(15 C)=5.62, (70 C)=4.42

Cu++ gl KNO3 25°C 0.10M U T M 1971IVb (46497)4204

K(CuL+Sar)=5.15

K(CuL+A)=5.34

HA=dimethylglycine

K(CuL+Sar)(15 C)=5.43, (70 C)=4.26; K(CuL+A)(15 C)=5.59, (70 C)=4.34

Cu++ gl KNO3 25°C 0.10M U M 1971TSh (46498)4205

K(CuL+Ala)=5.36

Cu++ gl KNO3 25°C 0.10M U M 1970STd (46499)4206

K(CuL+A)=7.20

K(CuL+B)=5.62

K(CuL+C)=9.51

H2A=salicylic acid, H3B=sulfosalicylic acid, H4C=tiron

Cu++ gl NaClO4 25°C 0.10M U M 1969AIa (46500)4207

K(CuL+Trp)=5.06

Cu++ gl NaClO4 25°C 0.10M U M 1969BIa (46501)4208

K(CuL+histamine)=6.11

K(CuL(histamine)+H)=7.58

Cu++ vlt NaClO4 25°C 0.10M U K1=13.60 1969VPa (46502)4209

Cu++ gl KNO3 25°C 0.05M U M 1968HAa (46503)4210

K(CuL+OH)=4.39

K(CuL+Gly)=5.46

K(CuL+A)=2.88

K(CuL+Ala)=5.42

A=ethylvalinate. K(CuL+Phe)=4.99; K(CuL+Val)=5.10; K(CuL+His)=5.73;

$K(\text{CuL+B})=3.06$; $K(\text{CuL+C})=3.10$. B=methyl glycinate, C=ethyl alaninate + others

Cu++ gl KNO3 25°C 0.08M U M 1968HAa (46504)4211

$K(\text{CuL+OH})=4.39$

$K(\text{CuL+A})=3.06$

$K(\text{CuL+B})=3.15$

$K(\text{CuL+C})=3.33$

A=methylglycinate, B=ethylglycinate, C=n-butylglycinate. Other amino acid esters also studied

Cu++ gl KNO3 25°C 0.08M U M 1968HAa (46505)4212

$K(\text{CuL+Gly})=5.44$

$K(\text{CuL+Ala})=5.42$

$K(\text{CuL+Phe})=4.99$

$K(\text{CuL+Leu})=5.35$

$K(\text{CuL+Val})=5.10$, $K(\text{CuL+B-Ala})=4.56$. $K(\text{CuL+His})=5.73$ and 4.16. Ternary complexes with picolinic acid

Cu++ gl NaClO4 25°C 0.10M U M 1968ICa (46506)4213

$K(\text{CuL+Arg})=5.22$

$K(\text{CuL+Gly})=5.44$

$K(\text{CuL+Ser})=5.01$

Cu++ gl NaClO4 25°C 0.10M U M 1968ICa (46507)4214

$K(\text{CuL+A})=3.43$

$K(\text{CuL+CuL(OH)+H})=-9.79$

$K(\text{CuL=CuL(OH)+H})=-9.14$

HA=glycylglycine

Cu++ gl NaClO4 ? 0.10M U M 1968ICb (46508)4215

$K(\text{CuL+Asp})=5.31$

$K(\text{CuL+Glu})=5.10$

Cu++ gl KNO3 0.4°C 0.10M U K1=13.11 1967TMF (46509)4216

Cu++ vlt diox/w 25°C 50% U B3=17.02 1966BEb (46510)4217

Cu++ cal KNO3 20°C 0.10M U H 1964HDa (46511)4218

DH(K1)=-7.7 kJ mol⁻¹, DS=221.5 J K⁻¹ mol⁻¹; DH(B2)=-34.7, DS=230

Cu++ oth KNO3 20°C 0.10M U K1=11.5 B2=14.80 1964JOa (46512)4219

Method: paper electrophoresis

Cu++ gl NaNO3 ? 0.50M U M 1963ISb (46513)4220

$K(\text{CuL+A})=5.32$

$K(\text{CuL+Gly})=5.44$

$K(\text{CuL+B})=6.20$

H2A=salicylic acid, HB=pyridyl carbaldoxime

Cu++ dis NaClO4 20°C 0.10M U K1=13.05 1963STc (46514)4221

Cu++ gl KNO3 25°C 0.10M U T H K1=13.10 1962MFb (46515)4222
K1=13.21(15 C), 13.16(20 C), 13.15(30 C), 13.10(35 C), 13.13(40 C)
DH(K1)=-4.6 kJ mol⁻¹, DS=236 J K⁻¹ mol⁻¹

Cu++ vlt KNO3 20°C 0.10M U T K1=12.96 1956SGa (46516)4223

Cu++ oth oth/un 20°C ? U K1=12.7 1956WJa (46517)4224

Cu++ vlt KCl 20°C 0.10M U T K1=12.96 1955SAa (46518)4225

Cu++ gl KCl 20°C 0.10M U K1=12.68 1951SFa (46519)4226

C6H9N2O3P H2L CAS 333721-08-7 (7991)
Amino-2-pyridinylmethylphosphonic acid;

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

Cu++ gl KNO3 25°C 0.10M C B2=20.42 2001LCa (47137)4227
B(CuHL)=16.09
B(CuH2L2)=30.62
B(CuHL2)=26.25

C6H9N2O3P H2L CAS 101508-76-3 (7726)
Amino-3-pyridylmethylphosphonic acid;

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

Cu++ gl KNO3 25°C 0.10M C K1=7.87 B2=13.75 2000Cmb (47139)4228
B(CuHL)=12.47
B(CuHL2)=19.46
B(CuH-1L2)=2.74

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

Cu++ sp R4N.X 25°C 0.10M C K1=10.30 B2=18.02 2004AKa (47262)4229
B(CuH-1L)=2.70
B(CuHL)=14.05
B(CuHL2)=23.70

By multivariate curve resolution. Medium: Me4NBr, 0.10 M. By potentiometry
K1=10.12, B2=18.10, B(CuH-1L)=2.65, B(CuHL)=14.16, B(CuHL2)=23.85.

Cu++ gl NaNO3 25°C 0.10M C M K1=10.61 B2=18.62 2004SSa (47263)4230
B(CuH-1L)=5.42
B(CuHL)=14.02
B(CuH-2L)=-1.60

B(CuHL2)=24.25
B(CuLA)=16.36, B(CuHLA)=21.11. HA is 6-aminopenicillanic acid.

Cu++ gl KNO3 25°C 0.10M C M K1=10.50 1999AAa (47264)4231
K(CuL+A)=3.63
B(CuLA)=14.13
K(CuL+B)=3.80
B(CuLB)=14.30

K(CuL+C)=3.53, B(CuLC)=14.03, K(CuL+D)=3.66, B(CuLD)=14.16.
HA=MOPSO, HB=MOPS, HC=DIPSO, HD=TAPSO.

Cu++ gl KNO3 25°C 0.10M C K1=10.11 1999BIa (47265)4232

Cu++ gl NaClO4 37°C 0.15M U M 1999NNA (47266)4233

B(CuHAL)=22.07
B(CuAL)=17.82
K(CuA+L)=9.81
K(CuL+A)=7.55

K(CuHL+A)=7.69. HA is nicotinic acid.

Cu++ gl NaClO4 37°C 0.15M U M 1997NAb (47267)4234

B(CuAL)=18.46
B(CuH2AL)=26.50
B(CuHAL)=22.79
K(CuL+A)=8.19

H2A is cysteic acid. K(CuA+L)=9.86.

Cu++ gl NaNO3 25°C 0.10M M M K1=10.66 B2=18.96 1997SKc (47268)4235

B(CuAL)=16.08
B(CuH-1AL)=7.22
B(CuHL)=14.86

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.10M C K1=9.58 B2=17.87 1996KDa (47269)4236

B(CuHL2)=23.58
B(CuH2L2)=28.09

Cu++ gl NaClO4 37°C 0.15M U M 1995NAc (47270)4237

B(CuLZn)=14.61
B(CuL2Zn)=21.96
B(CuH-1L2Zn)=16.16
B(CuHL2Ni)=27.96

B(CuL2Ni)=23.30, B(CuH-1L2Ni)=16.17, B(CuH-2L2Ni)=8.11.

Cu++ gl KNO3 25°C 0.10M M M K1=10.61 B2=19.08 1995SHc (47271)4238

K(Cu(ada)+L)=4.46
B(CuHL2)=24.34

ada: N-(acetamido)-iminodiethanoic acid. K(H+L)=9.05, K(2H+L)=15.15.

Cu++ gl NaCl 25°C 0.2M C K1=10.26 B2=14.30 1995VZb (47272)4239

A=famotidine. B(CuLA)=17.44, B(CuH-1LA)=10.56, B(CuH-2LA)=3.31

Cu++ gl NaCl04 37°C 0.15M U M 1993NKb (47282)4249
B(Cu(trp)HL)=22.82
B(Cu(trp)L)=18.15
K(CuHL+trp)=8.44
K(Cu(trp)+L)=9.92
K(CuL+trp)=7.88; B(Cu(glu)HL)=22.78, B(Cu(glu)L)=17.94, K(CuHL+glu)=8.40,
K(Cu(glu)+L)=9.42, K(CuL+glu)=7.67.

Cu++ gl NaCl 25°C 0.20M U B2=18.45 1992TSa (47283)4250
B(CuH-1LA)=10.74

HA=Asp-Ala-His-methylamide

Cu++ gl KNO3 35°C 0.20M C M K1=9.76 1992YKa (47284)4251
B(Cu(edda)L)=19.49
B(Cu(en)L)=18.63
K(Cu(edda)+L)=4.99
K(Cu(en)+L)=8.87

Cu++ gl NaCl 37°C 0.15M U M 1991HWa (47285)4252
B(CuLA)=15.26
H2A is 7-oxabicyclo-[2,2,1]-hept-5-ene-2,3-dicarboxylic acid

Cu++ gl NaCl04 30°C 0.01M U T H K1=10.18 1991PPa (47286)4253
K(Cu(imidazole)+L)=3.36
K(Cu(Me-imidazole)+L)=3.65
K(Cu(Et-imidazole)+L)=3.65
40 C: K1=9.78, 50 C: K1=9.39. DH(K1)=-68.6 kJ mol⁻¹

Cu++ gl KNO3 35°C 0.10M U M K1=10.13 1989RSb (47287)4254
B(CuL(thiodipropanoate))=20.60
K(Cu(TDPA)+L)=8.47

Cu++ gl NaCl 37°C 0.15M C M K1=9.70 B2=17.17 1988CHc (47288)4255
B(CuHL)=13.62
B(CuHL2)=22.75
B(CuH2L2)=25.98
B(Cu2L3)=29.26
B(CuH-1L)= 2.43. Ternary complex with captopril

Cu++ gl NaCl04 37°C 0.15M U M 1988NSa (47289)4256
B(CuHL(Asn))=22.03
B(CuL(Asn))=17.12
B(Cu(Asn)+L)=14.14
B(CuL+Asn)=7.65

Cu++ gl KNO3 35°C 0.20M C M K1=9.76 B2=17.77 1987PRa (47290)4257

Cu++ gl NaCl 37°C 0.15M U K1=9.80 B2=17.50 1986XHa (47291)4258

Cu++ gl NaCl 37°C 0.15M U K1=9.75 B2=17.40 1985CFb (47292)4259
B(CuHL)=13.70
B(CuHL2)=22.96
B(CuH2L2)=26.16
B(CuH-1L)=2.4

B(Cu2H-2L2)=7.5

Cu++ gl KNO3 35°C 0.10M C M K1=10.02 1985RRc (47293)4260
B(CuL(cytidine))=14.23

Cu++ gl KNO3 35°C 0.10M C K1=10.02 1985RRh (47294)4261

Cu++ oth NaClO4 35°C 0.10M C K1=10.35 B2=18.34 1985SGc (47295)4262
Method: paper electrophoresis. Medium pH 8.5.

Cu++ gl NaCl 37°C 0.15M C M K1=9.639 B2=17.36 1984ABg (47296)4263
B(CuHL)=13.587
B(CuHL2)=22.841
B(CuH2L2)=26.164
B(CuH-1L2)=6.676

B(CuAL)=13.241, B(Cu2H-2AL)=3.821. A is cimetidine.

Cu++ cal KNO3 25°C 0.10M C H 1984ACb (47297)4264
DH(K1)=-44.3 kJ mol⁻¹, DS=45.6 J K⁻¹ mol⁻¹; DH(B2)=-81.9, DS=71.9;
DH(CuHL)=-57.7, DS=77.3; DH(CuHL2)=-106.1, DS=100; DH(CuH2L2)=113, DS=142

Cu++ gl KCl 25°C 0.20M C M 1984KDb (47298)4265
B(CuHL(DOPA))=33.25
K(Cu(Adrenaline)+L)=9.41
B(CuHL(Adrenaline))=32.99
K(Cu(Noradrenaline)+L)=9.40

B(CuHL(Noradrenaline))=32.39; K(Cu(Dopamine)+L)=9.35, B(CuHL(Dopamine))=33.57
H3DOPA=3,4-dihydroxyphenylalanine

Cu++ gl NaClO4 30°C 0.20M C M K1=10.16 B2=17.67 1984PBd (47299)4266
K(Cu+HL)=8.23
K(Cu(bpy)+L)=8.36
K(Cu(bpy)+HL)=7.54

K(Cu(phen)+L)=8.00; K(Cu(phen)+HL)=7.46

Cu++ gl KCl 25°C 0.10M C TIHM R K1=10.16 B2=18.11 1984PEa (47300)4267
B(CuHL)=14.11
B(CuHL2)=23.81
B(CuH2L2)=27.2
B(Cu2H-2L2)=7.9

IUPAC evaluation. DH(K1)=-48.4 kJ mol⁻¹, DH(B2)=-89.2
25 C and 3.00 mol dm⁻³: K1=10.09, B2=19.03, B(MHL)=15.62, B(MHL2)=25.88

Cu++ gl KNO3 35°C 0.10M C M K1=10.42 1983KSc (47301)4268

K(Cu+HA+L)=13.78

K(Cu+HB+L)=13.78

A is adenine; HB is cytosine.

Cu++ gl NaNO3 37°C 0.15M U K1=10.190 B2=16.234 1982ESa (47302)4269
B(CuHL)=14.262
B(CuHL2)=22.801

Cu++ gl NaNO3 37°C 0.15M U M 1982ESa (47303)4270
B(CuL(pyridoxamine))=16.387
B(CuHL(pyridoxamine))=25.674
B(CuH2L(pyridoxamine))=31.123
B(CuH3L(pyridoxamine))=35.798
B(CuH4L(pyridoxamine))=38.007, B(CuH3L2(pyridoxamine))=45.129.

Cu++ gl KCl 25°C 0.10M C M T K1=9.893 B2=17.50 1982KBd (47304)4271
B(CuHL)=13.84
B(CuHL2)=23.17
B(CuH2L2)=26.55
B(CuH-2L2)=9.2
B(CuH-1L2)=6.4, B(CuL(histamine))=17.34, B(CuHL(histamine))=22.84,
B(CuH2L(histamine))=26.88. Other models also considered

Cu++ gl NaClO4 37°C 0.15M U M 1982NVa (47305)4272
B(CuLA)=17.65
B(CuHLA)=21.3
B(CuLB)=16.51
B(CuLC)=16.1

HA=2-aminobutanoic acid, HB=3-aminobutanoic acid, HC=4-aminobutanoic acid
Also other related ligands

Cu++ gl KNO3 25°C 0.10M U HM 1981AAc (47306)4273
DH(CuNiL2)=-89 kJ mol⁻¹; DH(CuZnL2)=-78.6; DH(CuCdL2)=-83.2

Cu++ gl NaCl 37°C 0.15M C K1=9.753 B2=17.40 1981CMc (47307)4274
B(CuHL)=13.70
B(CuHL2)=22.96
B(CuH2L2)=26.16
B(CuH-1L)=2.39
B(CuH-2L2)=7.50.

Cu++ gl NaCl 37°C 0.15M C K1=9.77 B2=17.38 1981JMa (47308)4275
B(CuHL)=13.94
B(CuHL2)=23.12

Cu++ gl KCl 25°C 0.10M U K1=10.39 B2=17.87 1980DMa (47309)4276
B(CuHL)=14.24

Cu++ gl NaNO3 25°C .005M U K1=10.37 B2=18.07 1980JMa (47310)4277
B(CuHL)=14.42

B(CuHL2)=24.17

B(CuH-1L)=2.80

Cu++ gl NaCl04 37°C 0.15M U M 1980NSa (47311)4278

B(CuAL)=15.77

B(CuH-1LA)=8.71

K(CuL+A=CuAL)=5.50

K(CuA+L)=10.07

HA= Glycylglycine. Data also for ternary complexes with other dipeptides

Cu++ gl NaCl04 37°C 0.15M U K1=10.27 B2=18.49 1980NSb (47312)4279

K(CuL+HL)=4.11

K(CuL2+H)=5.47

K(CuHL2+H)=3.44

Cu++ gl NaCl04 37°C 0.15M U M 1980NSc (47313)4280

B(CuL(Gly))=18.02

B(CuHL(Gly))=22.23

Cu++ ISE diox/w 25°C 20% U M 1980YTa (47314)4281

B(CuL(Ala))=17.80

Cu++ ISE diox/w 25°C 20% U M K1=10.13 B2=18.13 1980YTa (47315)4282

B(CuHL)=14.31

B(CuHL2)=24.07

B(CuH2L2)=27.83

B(CuL(Gly))=17.78

Cu++ gl KNO3 25°C 0.10M C M 1979YSa (47316)4283

B(CuL(Asp))=17.03

Cu++ gl KNO3 25°C 0.10M C M 1978D0c (47317)4284

B(CuLA)=17.79

B(CuHLA)=23.46

A=Imidazole-5-ethylamine

Cu++ gl KCl 25°C 0.20M U M T K1=10.04 B2=17.82 1978SKa (47318)4285

B(CuHL)=14.07

B(CuHL2)=23.62

B(CuH2L2)=27.13

B(CuH-2L2)=8.0

B(CuL(Gly))=17.43, B(CuL(en))=19.46, B(CuL(bpy))=16.84, B(CuL(Tiron))=22.60

Cu++ gl KNO3 25°C 0.10M U K1=10.111 B2=18.08 1977BPa (47319)4286

B(CuHL2)=23.88

B(CuH2L2)=27.56

Cu++ gl KNO3 25°C 0.10M U M 1977BPa (47320)4287

B(CuL(bpy))=16.29

B(CuL(en))=19.24

B(CuL(oxalate))=16.22

B(CuHL(bpy))=21.62

Also with Gly-Phe, Gly-Val, Val-Val, N-Bz-His

Cu++ gl KNO3 25°C 0.10M C M K1=10.15 B2=18.13 1976DOb (47321)4288

B(CuHL)=14.17

B(CuH2L2)=27.1

B(CuHL2)=23.87

B(CuH-1L)=2.0

B(CuHL(citrate))=19.08; B(CuL(citrate))=14.95; B(CuH-1L(citrate))=6.15

Cu++ gl KNO3 25°C 0.10M C T K1=10.14 B2=18.10 1976PSb (47322)4289

B(CuHL)=14.13

B(CuHL2)=23.92

B(CuH2L2)=27.48

B(CuH-1L)=2.47

B(CuL2H-2)=7.58

Cu++ gl KNO3 25°C 0.10M C K1=10.13 B2=18.12 1976PSb (47323)4290

B(CuHL)=14.07

B(CuHL2)=23.92

B(CuH2L2)=27.63

B(CuH-1L)=2.39

Ligand: D-His. B(CuH-2L2)=7.75

Cu++ gl NaClO4 25°C 3.00M C HM 1975BWa (47324)4291

B(CuL(Asn))=18.597

B(CuHL(Asn))=23.326

B(CuL(Thr))=18.613

DH and DS for ternary complexes

Cu++ gl KNO3 25°C 0.10M U K1=10.22 B2=18.11 1975RIb (47325)4292

K(CuL+H)=3.91

B(CuHL)=14.14

K(CuL2+H)=5.67

B(CuHL2)=23.79

Data for L-histidine. For racemic ligand, K1=10.22, K(CuL+H)=3.91,

B(CuHL)=14.13, B2=18.11, K(CuL2+H)=5.62, B(CuHL2)=23.74.

Cu++ gl none 21°C 0.0 M K1=10.14 B2=17.63 1974YAa (47326)4293

Cu++ gl NaCl 25°C 0.15M U T K1=10.20 B2=18.45 1973KSb (47327)4294

B(CuHL)=14.18

B(CuH2L2)=26.91

B(CuHL2)=24.01

K(Cu+L=CuH-1L+H)=2.00

K(Cu+2L=CuH-1L2+H)=7.71; K(Cu+2L=CuH-2L2+2H)=8.04

Cu++ gl oth/un ? ? U B2=18.91 1972KPd (47328)4295

Cu++ ISE NaCl04 25°C 3.00M U T K1=10.09 B2=19.03 1972WIb (47329)4296
B(CuHL)=15.62
B(CuHL2)=25.88
B(CuH2L2)=30.75
K(Cu+L=CuH-1L+H)=3.64

Cu++ cal KNO3 25°C 0.10M C H 1971BPi (47330)4297
DH(B1)=-63.63 kJ mol-1, For D-His: DH=-83.82, for rac-His: DH=-82.60

Cu++ gl KCl 25°C 0.10M U M K1=10.22 B2=18.00 1971HMc (47331)4298
K(Cu+HL)=5.15
K(Cu+L+HL)=14.13
B(CuLA)=16.93
B(CuHLA)=22.28

A=histidine methyl ester

Cu++ gl KNO3 25°C 0.16M U K1=10.01 B2=18.02 1970MBb (47332)4299
K(Cu+HL)=4.37
K(CuHL+L)=10.13

Cu++ gl KCl 25°C 0.50M U K1=6.45 B2=11.50 1969MMd (47333)4300

Cu++ gl KNO3 25°C 0.20M U T K1=10.74 B2=19.40 1969Rmb (47334)4301
K1(15 C)=11.03, K1(40 C)=10.34, K2(15 C)=8.91, K2(40 C)=8.26

Cu++ gl KNO3 37°C 0.15M U K1=9.79 B2=17.41 1967PSd (47335)4302

Cu++ cal KNO3 22°C 0.10M U HM 1967SSl (47336)4303
DH(B2)=-89.0 kJ mol-1, DS=58.1 J K-1 mol-1. Ternary complexes with NTA

Cu++ gl KCl 40°C 0.25M U T HM K1=10.5 1965AZa (47337)4304
K1=12.8(0 C), 11.2(15 C) 10.7(25 C). At 15 C: DH(K1)=-114.5 kJ mol-1,
DH(CuA+L=CuL+A)=-38. A=histidine methyl ester

Cu++ gl KCl 25°C 0.10M U K1=10.21 B2=18.53 1964DCa (47338)4305

Cu++ gl KNO3 25°C 0.20M U K1=10.30 1963CCb (47339)4306

Cu++ gl oth/un 25°C 0.30M U K1=10.3 1961JWa (47340)4307
Medium: K2S04. By platinum electrode: K1=10.5

Cu++ gl oth/un 20°C 1.0M U B2=28.0 1961VAa (47341)4308
K(Cu+HL+L)=20.0

Cu++ gl oth/un 25°C 0.01M U K1=10.56 B2=18.81 1959LRa (47342)4309

Cu++ gl oth/un 20°C ? U B2=18.70 1959PEe (47343)4310

Cu++ gl oth/un 25°C 0.20M U K1=10.60 B2=18.6 1957Lda (47344)4311

Cu++ gl oth/un 25°C 0.01M U B2=18.33 1950MMa (47345)4312

C6H9N3O2 HL (4366)
Acetone cyanoacetylhydrazone; CH3.CO.CH2.N(CO.CH2.CN).NH2

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

Cu++ sp NaNO3 20°C 0.10M U K1=8.2 B2=15.80 1970Z0a (47633)4313

C6H9N3O3 L Metronidazole CAS 443-48-1 (1432)
2-Methyl-5-nitro-H-imidazole-1-ethanol; C3HN2(NO2)(CH3).CH2.CH2.OH

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

Cu++ gl KNO3 25°C 0.50M U K1=1.32 B2=1.85 1983LWa (47644)4314

C6H9O6P H3L CAS 4408-72-4 (7015)
Phosphinotriethanoic acid; P(CH2.COOH)3

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

Cu++ ISE NaClO4 25°C 0.10M U I K1=5.87 B2=10.51 1979PPc (47652)4315
B3=13.62
B4=15.3

Method: Cu elec. In 50% v/v dioxan/H2O: K1=6.49; B2=10.87; B3=14.30; B4=15.7

C6H10N2 L CAS 35203-44-2 (2054)
1-Propylimidazole; C3H3N2.CH2.CH2.CH3

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

Cu++ gl KNO3 25°C 0.50M U K1=4.25 B2=7.81 1979LBa (47675)4316
B3=10.70
B4=13.10
B5=14.20

C6H10N2 L Tri-Me-Pyrazole CAS 822-90-2 (370)
3,4,5-Trimethyl-1,2-diazole; C4HN2(CH3)3

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

Cu++ sp alc/w 20°C 20% U K1=2.64 B2=4.68 1982KSb (47687)4317

C6H10N2O2 HL Nioxime CAS 492-99-9 (1098)
Cyclohexane-1,2-dione-dioxime; C6H8(:NOH)2

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

Cu++ gl NaNO3 20°C 0.20M U K1=9.99 B2=19.38 1969MVa (47695)4318

Cu++ gl diox/w 25°C 50% U K1=13.2 B2=25.7 1958PBa (47696)4319

C6H10N2O3 HL CAS 32514-11-7 (4318)

dl-Tetranordethiobiotin;

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

Cu++ gl diox/w 25°C 50% U M K1=3.14 1969SMc (47708)4320

K(CuA+bpy)=3.17

Medium: 50% dioxan, 0.1 M NaClO4. d-isomer, K1=3.16

C6H10N2O3S2 HL (7167)

Cysteiny1-cysteine-cyclo(1-2)-disulfide;

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

Cu++ gl KCl 25°C 0.10M C K1=4.66 1994GRc (47712)4321

B(CuH-1L)=-0.75

B(CuH-2L)=-9.77

C6H10N2O4 H2L (8064)

1-Acetyl-2,3-butanedione dioxime;

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

Cu++ gl KNO3 25°C 0.10M U I 1976LUa (47713)4322

K(Cu+HL)=7.75

K(CuHL+HL)=9.40

K(Cu+H2L=CuHL+H)=-2.00

K(Cu+2H2L=Cu(HL)2+2H)=-2.40

Data for 25, 50 and 75% v/v dioxan/H2O. At 50%, K(Cu+HL)=9.55,

K(CuHL+HL)=10.70, K(Cu+H2L=CuHL+H)=-2.25, K(Cu+2H2L=Cu(HL)2+2H)=-3.35

C6H10N2O4 H2L (3695)

N-(Iminomethyl)-2-aminopentanedioic acid;

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

Cu++ gl NaClO4 25°C 0.10M U K1=9.14 B2=16.56 1965NCa (47716)4323

C6H10N2O4 HL CAS 5687-49-8 (3696)

N-Acetylglycylglycine; CH3.CO.NH.CH2.CO.NH.CH2.COOH

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

Cu++ gl oth/un 20°C 1.0M U I K2=1.41 1960KFb (47719)4324

K2=2.07(I=0.015)

C6H10N2O4 H2L (7336)

N-Pyruvoylalanine oxime; CH3.C(:NOH).CONH.CH(CH3).COOH

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KNO3   25°C 0.10M C          K1=8.64      19950Sa (47721)4325
          B(CuH-2L)=-7.97
          B(Cu2H-1L2)=14.20
          B(Cu2H-2L2)=9.07

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C6H10N2O4      H2L          CAS 96705-91-8 (3103)
Piperazine-2,5-dicarboxylic acid;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KCl    22°C 0.10M U          K1=12.9      1964PCa (47724)4326

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C6H10N2O4      H2L          (3104)
Piperazine-2,6-dicarboxylic acid;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KCl    22°C 0.10M U          K1=8.5       1964PCa (47730)4327

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*****
C6H10N2O4      H2L          CAS 89601-09-2 (3102)
trans-Piperazine-2,3-dicarboxylic acid;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KCl    22°C 0.10M U          K1=13.0      1964PCa (47741)4328

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*****
C6H10N2O5      H2L   Asp-Gly          CAS 3790-51-0 (6521)
Aspartyl-glycine; H2N.CH(CH2.COOH)CO.NH.CH2.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Cu++      gl  KCl    25°C 0.20M U          K1=6.52  B2=10.77  1993SFa (47756)4329
          B(CuHL)=10.00
          B(CuH-1L)=1.65
          B(CuH-2L)=-7.80
          B(CuH-1L2)=4.45

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Cu++      gl  KNO3   25°C 0.20M C          K1=9.11  B2=16.83  1987FDc (47757)4330
          B(CuH-1L)=3.03
          B(CuH-1L2)=8.04
*****
C6H10N2O5      H2L   Gly-Asp          CAS 4685-12-5 (282)
Glycyl-aspartic acid; H2N.CH2.CO.NH.CH(CH2.COOH).COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Cu++      gl  KCl    25°C 1.00M C          1989FKa (47770)4331

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K(CuH-1L2=CuH-1LOH+L+H)=-12.55

Cu++ gl KNO3 25°C 0.20M C K1=12.09 1987FDc (47771)4332
B(CuHL)=16.15
B(CuH-1L)=4.86

Cu++ gl KCl 25°C 0.20M C HM K1=6.61 1982GFa (47772)4333
B(CuHL)=10.41
B(CuH-1L)=1.85
B(CuH-2L)=-7.97
B(Cu2H-3L2)=-4.20

DH(K1)=-22 kJ mol⁻¹, DS=53 + ternary complexes with many D and L amino acids

Cu++ gl NaCl 25°C 0.12M U K1=7.55 B2=10.31 1977BSb (47773)4334

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

Cu++ gl NaNO3 25°C 0.10M C K1=7.65 2000KHb (47792)4335

Cu++ gl alc/w 25°C 20% M M 1998ABa (47793)4336
K(CuL+oxine)=9.62

Medium: 20% w/w EtOH/H2O, 0.1 M KNO3.

Cu++ gl alc/w 25°C 20% C 1994IMa (47794)4337
K(CuL+bpy)=4.18
K(CuL+phen)=4.88

Medium: 20% w/w MeOH/H2O, 0.10 M KNO3.

Cu++ vlt KNO3 25°C 0.10M U T H K1=9.34 B2=12.30 1989AHa (47795)4338
DH(K1)=-105.9 kJ mol⁻¹, DH(B2)=-99.36

Cu++ gl NaClO4 25°C 0.10M U M K1=2.50 1987NDa (47796)4339
K(CuA+B+L)=13.89

H2A=iminodiethanoic acid, H2B=oxydiethanoic acid

Cu++ gl KNO3 25°C 0.10M C K1=9.7 B2=12.82 1983LRc (47797)4340
K(CuL2=CuH-1L+H+L)=-11.34

Cu++ gl KNO3 25°C 0.10M C K1=9.7 1979NAb (47798)4341
*K(CuL)=-7.96
*K(CuH-1L)=-10.08

Cu++ gl KNO3 25°C 0.10M C K1=4.01 1979NAb (47799)4342

Cu++ gl KCl 20°C 0.10M U K1=9.68 B2=12.94 1955SAa (47800)4343

C6H10N2O5 H2L beta-Asp-Gly CAS 3790-52-1 (6522)

beta-Aspartyl-glycine; H2N.CH(COOH)CH.CO.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	U			K1=7.90 B2=14.23 B(CuHL)=11.15 B(CuH-1L)=1.56 B(CuH-2L)=-8.31 B(CuH-1L2)=4.33	1993SFa	(47860)4344

C6H10N2O6 H3L (7019)
N,N-Bis(carboxymethyl)aminoacetohydroxamic acid; (HOOC.CH2)2N.CH2.CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	NaClO4	20°C	0.10M	U			K1=14.72 K(Cu+HL)=9.45 K(H+CuL)=4.15	1977KJa	(47862)4345

C6H10N2O6P2 H4L (6893)
N-(2-Pyridyl)aminomethylenedi(phosphonic acid); C5H4N.NH.CH(PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U			K1=12.55 K(Cu+HL)=10.28 K(Cu+H2L)=6.30	1990GKa	(47865)4346

C6H10N4 L Metrazole CAS 54-95-5 (2046)
1,5-Pentamethylenetetrazole, 6,7,8,9-Tetrahydro-5H-tetrazoloazepine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	KNO3	25°C	0.50M	U			K1=1.08 B2=2.43	1976LWa	(47873)4347

C6H10N4O L CAS 7261-14-9 (4368)
Histidinamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.50M	U			K1=4.53 B2=8.21	1969MMd	(47882)4348

C6H10N4O2 HL CAS 25486-00-4 (2554)
2-Amino-3-(4'-imidazolyl)propanehydroxamic acid, Histidine-hydroxamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	C	M		B2=20.14 B(CuH2L)=20.38 B(CuHL)=12.27	2001KBa	(47898)4349

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Cu++      EMF NaClO4 25°C 0.10M U      K1=4.2   B2=7.7   1984BCa (47935)4356
K1=4.3 and K2=3.4 when Ca/Cm=30. Where Ca/Cm= total ligand/ total metal
ratio. Alternative method: Specific ion electrode or Marinsky's method
*****
C6H1002      HL      CAS 815-57-6 (2261)
3-Methyl-pent-2,4-dione; CH3.CO.CH(CH3).CO.CH3
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      sp non-aq 20°C 100% U      M      K(CuL2+py)=0.37
                                           K(CuL2+A)=0.55
                                           K(CuL2+B)=0.00
Medium: benzene. A=4-methylpyridine, B=2-methylpyridine
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Cu++      cal non-aq 20°C 100% U      M      K(CuL2+py)=0.38
Medium: benzene
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Cu++      gl diox/w 30°C 75% U      K1=13.28 B2=23.63 1962MMb (47941)4359
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Cu++      gl diox/w 20°C 50% U      B2=16.4   1945Cwa (47942)4360
*****
C6H1002      HL      CAS 1577-22-6 (962)
5-Hexenoic acid; CH2:CH.CH2.CH2.CH2.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl KNO3 25°C 0.10M C      K1=1.45   1975IPa (47950)4361
*****
C6H1002S      HL      CAS 29431-24-1 (4369)
(But-1-enylthio)ethanoic acid; CH2:CH.CH2.CH2.S.CH2.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      ISE KNO3 25°C 0.10M C      K1=2.13   1972FGb (47953)4362
By competition with Ag+ using Ag ISE
*****
C6H1002S      HL      (4370)
Ethyl thioacetate; CH3.CS.CH2.CO.OCH2.CH3
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      ISE KNO3 25°C 0.10M C      K1=2.02   1972FGb (47958)4363
By competition with Ag+ using Ag ISE
*****
C6H1002S2      HL      (1224)
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1,2-Dithiolane-3-propanoic acid, Bisnorlipoic acid; C3H5S2.CH2CH2COOH

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

Cu++ gl NaCl04 25°C 0.10M C K1=3.58 1978SPd (47972)4364

C6H10O3 HL CAS 16841-19-3 (3649)
1-Hydroxycyclopentanecarboxylic acid; HO.C5H8.COOH

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

Cu++ gl NaCl04 25°C 0.10M U K1=2.799 B2=4.58 1967PRb (47980)4365

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

Cu++ gl diox/w 30°C 50% U K1=8.4 B2=14.9 1945Cwa (48005)4366

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

Cu++ ISE NaCl04 25°C 0.10M C K1=1.98 1989COB (48040)4367

Cu++ vlt KNO3 25°C 1.0M C K1=3.08 B2= 3.80 1983GJb (48041)4368
Method: polarography.

Cu++ oth oth/un 40°C 0.10M U K1=2.7 1981Sse (48042)4369
Method: Paper electrophoresis.

Cu++ gl oth/un 25°C 0.10M U K1=2.3 1960YYa (48043)4370

Cu++ gl oth/un 25°C ->0 U K1=3.35 1951PJa (48044)4371

C6H10O4 H2L CAS 597-43-3 (2693)
2,2-Dimethylbutanedioic acid; HOOC.C(CH3)2.CH2.COOH

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

Cu++ gl NaCl04 25°C 0.50M C K1=3.09 1986LEe (48101)4372
B(CuHL)=7.36

C6H10O4 H2L (3070)
Isopropylmalonic acid; HOOC.CH(CH(CH3)2).COOH

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

Cu++ gl alc/w 25°C 25% C I M K1=6.33 B2=10.54 1976D0c (48106)4373
Medium: 25% PrOH/H2O. B(CuL(malonate))=9.99. In 50% PrOH: K1=6.92, K2=4.83

Cu++ gl KNO3 25°C 0.10M C M K1=5.37 B2= 8.96 19730Da (48107)4374
B(Cu(bpy)L)=13.98
K(Cu(bpy)+L)=5.78

Cu++ con oth/un 25°C .001M U K1=5.5 1931IRb (48108)4375

Cu++ ISE oth/un 25°C 0.10M U B2=9 1930RIa (48109)4376

C6H10O4 H2L CAS 616-62-6 (3069)

n-Propylmalonic acid; HOOC.CH(C3H7).COOH

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

Cu++ gl KNO3 25°C 0.10M C H K1=4.92 B2=8.14 1989ABa (48113)4377
B(Cu(bpy)L)=13.40
DH(K1)=10.3 kJ mol⁻¹, DH(K2)=4.44, DS(K1)=129 J K⁻¹ mol⁻¹, DS(K2)=76.6

Cu++ con oth/un 25°C .001M U K1=5.15 1931IRb (48114)4378

Cu++ ISE oth/un 25°C 0.10M U B2=8 1930RIa (48115)4379

C6H10O4S H2L CAS 42715-54-8 (986)

2,2'-Thiodipropanoic acid; HOOC.CH(CH3).S.CH(CH3).COOH

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

Cu++ gl KNO3 25°C 0.10M C K1=3.97 1975LPa (48119)4380
K(Cu+HL)=1.8

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

Cu++ gl KNO3 35°C 0.10M C M K1=3.35 1999DSb (48145)4381
B(CuAL)=6.19

A is thiamine hydrochloride.

Cu++ gl NaClO4 30°C 0.10M C M 1985SHb (48146)4382

B(CuAL)=7.13
K(CuL+A)=2.18
K(CuA+L)=4.58
B(CuBL)=7.16

K(CuL+B)=2.22, K(CuB+L)=4.61. H2A is ethylmalonic acid, H2B is diethylmalonic acid.

Cu++ gl NaClO4 25°C 0.10M U TIH K1=3.96 1984DBa (48147)4383

K(Cu+HL)=3.98

C6H10O4S2 H2L CAS 1119-62-6 (3697)
3,3'-Di(thiopropionic acid); HOOC.CH2.CH2.S.S.CH2.CH2.COOH

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

Cu++ gl NaClO4 30°C 0.10M C M K1=1.61 1985SHb (48259)4397
B(CuAL)=6.42
K(CuL+A)=1.48
K(CuA+L)=4.81
B(CuBL)=6.54

K(CuL+B)=1.60, K(CuB+L)=4.93. H2A is ethylmalonic acid, H2B is diethylmalonic acid.

Cu++ gl NaClO4 20°C 0.10M U T H K1=3.72 B2= 7.06 1984SGd (48260)4398
K values by Bjerrum's method. By least squares, K1=3.65, K2=3.27.
Also data for 30 and 40 C. DH(B2)=-107 kJ mol⁻¹, DS(B2)=-210 J K⁻¹ mol⁻¹.

Cu++ gl NaClO4 30°C 0.10M U M K1=1.61 1983SHd (48261)4399
B(CuLA)=5.96
K(CuL+A)=4.35
K(CuA+L)=0.83
B(CuLB)=5.82

H2A is methylmalonic acid, H2B is dimethylmalonic acid.
K(CuL+B)=4.21, K(CuB+L)=1.00.

Cu++ gl NaClO4 20°C 0.15M U K1=3.02 1963HPa (48262)4400
K(Cu+HL)=2.54

Cu++ gl oth/un 20°C 0.10M U K1=1.61 19610Ca (48263)4401
K(Cu+HL)=0.88

C6H10O4Se H2L CAS 80030-00-8 (987)
2,2'-Selenodipropanic acid; HOOC.CH(CH3).Se.CH(CH3).COOH

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

Cu++ gl KNO3 25°C 0.10M C K1=3.21 1975LPa (48277)4402
K(Cu+HL)=2.1

C6H10O4Se H2L CAS 2168-88-9 (982)
3,3'-Selenodipropanic acid; HOOC.CH2.CH2.Se.CH2.CH2.COOH

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

Cu++ gl NaClO4 25°C 0.10M C HM 1979CRa (48287)4403
B(CuL(bpy))=10.83
B(CuHL(bpy))=14.3

DH(CuL(bpy))=-40.6 kJ mol⁻¹, DS=71

Cu++ gl KNO3 25°C 0.10M C K1=2.60 1975LPa (48288)4404
K(Cu+HL)=1.59

C6H1004Te H2L CAS 2168-91-4 (983)
3,3'-Tellurodipropionic acid; HOOC.CH2.CH2.Te.CH2.CH2.COOH

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

Cu++ gl KNO3 25°C 0.10M C K1=3.2 1975LPa (48299)4405
K(Cu+HL)=2.7

C6H1005 H2L CAS 5961-83-1 (981)
3,3'-Oxodipropionic acid; HOOC.CH2.CH2.O.CH2.CH2.COOH

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

Cu++ gl KNO3 25°C 0.10M C K1=2.52 1975LPa (48309)4406
K(Cu+HL)=1.4

C6H1006 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

Cu++ gl KNO3 25°C 0.10M U K1=3.39 1975MTc (48322)4407

Cu++ gl oth/un 20°C 0.10M U K1=3.15 19610Ca (48323)4408
K(Cu+HL)=2.61

C6H1007 HL Galacturonic CAS 685-73-4 (290)
D-Galacturonic acid;

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

Cu++ gl KNO3 25°C ? U K1=1.80 B2=3.00 1991DVa (48371)4409
B(CuH-1L2)=-3.02
B(CuH-2L2)=-10.06
B(CuH-4L2)=-29.69

K1 from polarography

Cu++ gl KNO3 25°C 0.1M U K1=1.80 B2=3.00 1991DVb (48372)4410
B(CuH-1L2)=-3.02
B(CuH-2L2)=-10.06
B(CuH-4L2)=-29.69

K1=1.80 from polarography; logK(HL)=3.28

Cu++ vlt NaCl04 25°C 0.10M U K1=3.39 B2=5.99 1990DGa (48373)4411
B(CuH-1L)=-2.60

Cu++ ISE KNO3 25°C 0.70M U K1=2.38 1986HAe (48374)4412
Data also for many other mono- and disaccharide acids

Cu++ vlt NaClO4 25°C 0.74M C B2=1.83 1982PMb (48375)4413
Method: polarography. Ligand is alpha-galacturonic acid.

Cu++ cal NaNO3 25°C 1.00M U H K1=1.81 1981ARa (48376)4414

Cu++ gl NaClO4 25°C 1.00M C K1=1.81 1977Mca (48377)4415

C6H10O7 HL Glucuronic acid CAS 6556-12-3 (599)
D-Glucuronic acid;

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

Cu++ ISE KNO3 25°C 0.70M U K1=1.89 1986HAe (48404)4416
Data also for many other mono- and disaccharide acids

Cu++ gl NaClO4 25°C 0.74M U K1=1.01 B2= 4.10 1982PMb (48405)4417
By polarography: B2=4.10.

Cu++ cal NaNO3 25°C 1.00M U H K1=1.48 1981ARa (48406)4418

Cu++ gl NaClO4 25°C 1.00M C K1=1.48 1977Mca (48407)4419

C6H10O8 H2L Mucic acid CAS 526-99-8 (3650)
2,3,4,5-Tetrahydroxyhexanedioic acid, Galactaric acid; HOOC.(CHOH)4.COOH

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

Cu++ gl NaNO3 25°C 0.10M C M K1=3.68 1999SCa (48430)4420
B(CuH-1L)=-1.87
B(CuH-2L)=-7.54
B(CuL(bpy))=12.25
B(CuH-1L(bpy))=6.29
B(CuH-2L(bpy))=-2.27

Cu++ gl NaNO3 25°C 1.0M U 1968BOa (48431)4421
K(Cu+L=CuH-1L+H)=-9.36
K(Cu+L=CuH-2L+2H)=-18.11

C6H10O8 H2L Saccharic acid CAS 87-73-0 (1191)
D-2,3,4,5-Tetrahydroxy-1,6-hexanedioic acid, Glucaric acid; HOOC.(CHOH)4.COOH

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

Cu++ gl NaClO4 25°C 0.10M U K1=3.51 B2= 5.54 1997PPa (48450)4422
K(Cu+H2L=CuL+2H)=-3.86
*K(CuL)=-4.38
*K(CuH-1L)=-6.65

$$K(\text{Cu}+2\text{H}_2\text{L}=\text{CuL}+4\text{H})=-9.20$$

 Cu++ gl NaClO4 25°C 0.10M U M K1=3.86 1997PPc (48451)4423
 K(Cu(edta)+L)=3.60

Cu++ vlt NaNO3 25°C 1.0M C 1977B0d (48452)4424
 Method: polarography. At pH 10.0, K1eff=9.41, B2eff=10.44; at pH 6, K1eff=5.84, B2eff=6.85. At pH 10.0, K(Cu+L+OH)=13.4, K(Cu+2L+OH)=14.8.

Cu++ gl KNO3 25°C 1.00M U 1976V0a (48453)4425
 K(Cu+H2L=CuH-1L+3H)=-13.97
 K(Cu+2H2L=CuL2+4H)=-6.13

Cu++ sp KNO3 25°C 1.0M C B2=6.13 1975V0a (48454)4426
 K(Cu+H-1L)=13.79

Authors assume that K(H-1L+H)=14.0.

 C6H11NO2 HL CAS 52-52-8 (3105)
 1-Aminocyclopentanecarboxylic acid; H2N.C5H8.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KCl	20°C	0.10M	U		K1=8.63 B2=15.92	1963IPa	(48499)4427
							K(CuL+H)=1.9		

 C6H11NO2 HL CAS 16258-05-2 (1128)
 2-Amino-hex-5-enoic acid; CH2:CH.CH2.CH2.CH(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U		K1=8.09 B2=14.90	1975IPb	(48507)4428

 C6H11NO2 HL CAS 37910-65-9 (6018)
 2-Aminocyclopentane-1-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.50M	C		K1=6.944 B2=12.671	1986GGa	(48514)4429
							B(CuH-1L)=-0.37		
							B(CuH-1L2)=2.52		

cis isomer. For trans isomer, K1=6.866, B2=12.406

 C6H11NO2 HL Pipecolinic acid CAS 3105-95-1 (1125)
 2-Piperidine carboxylic acid; C5H10N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KNO3	30°C	0.10M	U T HM		K1=7.49	1986RRb	(48521)4430
40 C: K=7.39, 50 C:K=7.14. DH=-69.3 kJ mol ⁻¹ , DS=85.6 J K ⁻¹ mol ⁻¹									

Cu++ gl KNO3 30°C 0.10M U T HM 1986RRb (48522)4431

K(Cu(Gly)+L)=7.68

K(Cu(Ala)+L)=7.64

Gly: 40 C: K=7.40, 50 C:K=7.32. DH=-33.7 kJ mol⁻¹, DS=10.8 J K⁻¹ mol⁻¹

Ala: 40 C: K=5.51, 50 C:K=7.34. DH=-28.1 kJ mol⁻¹, DS=16.2 J K⁻¹ mol⁻¹

Cu++ gl KNO3 30°C 0.10M U T HM 1986RRb (48523)4432

K(Cu(Phe)+L)=7.91

K(Cu(Pro)+L)=8.36

Phe: 40 C: K=7.84, 50 C:K=7.50. DH=-38.4 kJ mol⁻¹, DS=7.5 J K⁻¹ mol⁻¹

Pro: 40 C: K=8.24, 50 C:K=8.00. DH=-33.7 kJ mol⁻¹, DS=14.8 J K⁻¹ mol⁻¹

Cu++ gl KNO3 30°C 0.10M U T HM 1986RRb (48524)4433

K(CuA+L)=7.77

K(CuB+L)=8.18

HA=hydroxyproline. 40 C: K=7.52, 50 C:K=7.40. DH=-34.7 kJ mol⁻¹, DS=10.4

H2B=catachol. 40 C: K=7.96, 50 C: K=7.88. DH=-28.1, DS=19.4 J K⁻¹ mol⁻¹

Cu++ gl KNO3 30°C 0.10M U T HM 1986RRb (48525)4434

K(Cu(phen)+L)=6.84

K(Cu(bpy)+L)=6.84

Phen: 40 C: K=6.73, 50 C:K=6.60. DH=-22.5 kJ mol⁻¹, DS=17.2 J K⁻¹ mol⁻¹

Bpy: 40 C: K=6.71, 50 C: K=6.55. DH=-27.2 kJ mol⁻¹, DS=12.5 J K⁻¹ mol⁻¹

Cu++ gl KNO3 30°C 0.10M U M 1986RRc (48526)4435

K(Cu(Gly)+L)=7.68

B(Cu(Gly)L)=15.91

K(Cu(Ala)+L)=7.64

B(Cu(Ala)L)=15.80

Values for other ternary complexes: Phe: 7.91,15.63. Pro: 8.36,17.23.

picolinic acid: 6.88,13.81. catechol: 8.18,20.48. bpy:6.84,14.89 plus others

Cu++ gl oth/un 30°C 0.10M U H K1=7.49 B2=13.35 1985RRe (48527)4436

DH(K1)=-69 kJ mol⁻¹, DS= 86 J K⁻¹ mol⁻¹, DH(B2)=-161, DS=413

Cu++ gl KNO3 20°C 0.10M U K1=7.5 B2=13.90 1968HLA (48528)4437

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

Cu++ gl diox/w 20°C 50% U I K1=10.06 B2=17.89 1970SKd (48540)4438

Medium: 0-60% dioxan, 0.2 M NaClO4

K1(0%)=7.20, K1(60%)=10.57, K2(0%)=6.45, K2(60%)=8.08

C6H11NO2 HL N-Methylproline CAS 91353-48-4 (6133)

N-Methyl-2-pyrrolidincarboxylic acid;

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

Cu++ gl KCl 25°C 0.10M U K1=7.32 B2=14.44 1977KDa (48545)4439

C6H11NO2Cl2 H2L CAS 2619-97-8 (3123)
N,N-Di(2-chloroethyl)glycine; (Cl.CH2.CH2)2N.CH2.COOH

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

Cu++ oth oth/un ? ? U K1=4.90 B2=8.20 1957IHb (48546)4440

C6H11NO2S H2L (3053)
5,5-Dimethylthiazole-4-carboxylic acid;

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

Cu++ ix oth/un ? 0.10M U K1=4.4 B2=8.7 1957WFb (48548)4441

C6H11NO3 HL (6134)
4-Hydroxy-2-(N-methyl)pyrrolidinecarboxylic acid, N-Methyl-4-hydroxyproline;

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

Cu++ gl KCl 25°C 0.10M U K1=6.67 B2=13.23 1977KDa (48550)4442
For D-allo-N-methylhydroxyproline, K1=8.00, K2=14.83

C6H11NO3S H2L CAS 52574-90-0 (1270)
2-Mercaptopropanoyl-beta-alanine; CH3.CH(SH).CO.NH.CH2.CH2.COOH

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

Cu++ gl KNO3 20°C 0.10M U K1=7.0 B(CuH-1L)=0.3 1976SHb (48552)4443

C6H11NO3S H2L CAS 65134-68-1 (1325)
3-Mercaptopropanoyl-beta-alanine; HS.CH2.CH2.CO.NH.CH2.CH2.COOH

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

Cu++ gl KNO3 20°C 0.10M U K1=6.1 B(CuH-1L)=-1.5 1976SHb (48555)4444

C6H11NO3S2 H2L (2160)
2-Mercaptopropanoyl-cysteine; CH3.CH(SH).CO.NH.CH(CH2.SH).COOH

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

Cu++ gl KNO3 20°C 0.10M U K1=14.3 K(CuH-1L+H)=5.7 1977SHa (48559)4445

Cu++ gl KNO3 20°C 0.10M U K1=14.7 1976SHb (48560)4446

K(CuH-1L+H)=8.0

C6H11N04 H2L (1553)
(3-Aminopropyl)malonic acid; H2N.CH2.CH2.CH2.CH(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaCl	25°C	0.10M	U	H			1988BCa	(48565)4447

K(Cu+HL)=4.11
K(CuHL+HL)=2.93
K(CuHL+L)=6.62

By calorimetry: DH(CuHL)=11.3 kJ mol⁻¹; DS=117. DH(CuH2L2)=2.1; DS=63.
DH(CuHL2)=-29; DS=21.

C6H11N04 H2L (1232)
2,2'-Iminodipropionic acid; HN(CH(CH3)COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C			K1=10.6 B2=15.00	1987AKa	(48567)4448

Cu++	gl	KNO3	25°C	0.10M	U			K1=10.6 B2=15.00	1987BKa	(48568)4449
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K1 determined by ligand exchange with tris(2-aminoethyl)amine, according to G.Schwarzenbach, E.Freitag, Helv.Chim.Acta, 34, 1147 (1951)

C6H11N04 H2L CAS 59472-26-3 (3699)
2-Amino-2-methylpentanedioic acid; HOOC.C(NH2)(CH3).CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U			K1=7.97 B2=14.31	1965NCa	(48579)4450

C6H11N04 H2L (3106)
Iminodipropionic acid; HN(CH2.CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	30°C	0.10M	U			K1=9.43 B2=13.11	1952CMA	(48586)4451

C6H11N04 H2L CAS 103954-11-6 (5805)
N-(1-Carboxyethyl)-alanine; HOOC.CH(CH3).NH.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C			K1=10.68 B2=15.18	1984FVa	(48592)4452

C6H11N04S H2L CAS 104640-54-2 (2460)
S-Carboxyethyl-L-cysteine; H2N.CH(CH.S.CH2.CH2.COOH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++ gl NaClO4 25°C 2.00M U K1=5.62 B2=10.10 1980MAc (48617)4453

C6H11NO5 H2L CAS 50825-12-2 (5806)
N-(1-Carboxyethyl)-N-hydroxy-alanine; HOOC.CH(CH3).N(OH).CH2.CH2.COOH

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

Cu++ gl KNO3 25°C 0.10M C K1=8.15 B2=12.45 1984FVa (48623)4454

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

Cu++ cal KNO3 25°C 0.20M U H 1985VRa (48645)4455
DH1=-23.8 kJ mol⁻¹; DH(B2)=-45.8

Cu++ gl KNO3 25°C 0.10M U K1=11.72 1983FSa (48646)4456

Cu++ sp NaClO4 20°C 0.10M U K1=11.96 B2=15.80 1978KIb (48647)4457

Cu++ gl KNO3 0.4°C 0.10M U K1=12.00 1967TMf (48648)4458

Cu++ oth KNO3 20°C 0.10M U K1=11.2 B2=15.20 1965JMa (48649)4459
Method: electrophoresis

Cu++ vlt KNO3 25°C 0.10M U K1=13.38 B2=15.62 1965VFa (48650)4460

Cu++ gl oth/un 30°C 0.10M U 1957Mca (48651)4461
K(CuL2OH+H)=9.1

Cu++ gl oth/un 20°C 0.05M U 1957PAa (48652)4462
K(CuL2OH+H)=9.15

Cu++ gl KCl 20°C 0.10M U K1=11.86 B2=15.87 1955SAa (48653)4463
K(CuLOH+H)=8.63

Cu++ gl KCl 30°C 0.10M U K1=10 B2=14.2 1952CCa (48654)4464

C6H11NO5 H2L (7174)
N-Carboxymethylthreonine; HOOCCH2NHCH(CH(OH)CH3)COOH

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

Cu++ gl KNO3 25°C 0.10M C K1=10.83 B2=15.71 1995TMa (48821)4465
B(CuH-1L=CuOHL)=1.95
B(CuH-2L=Cu(OH)2L)=-8.25

C6H11NO5 H2L (1238)

N-Hydroxy-3,3'-iminodipropionic acid; HO.N(CH2.CH2.COOH)2

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

Cu++ gl KNO3 25°C 0.10M U K1=7.3 1987BKa (48826)4466

C6H11NO5 H2L (1233)
N-Hydroxyimino-2,2'-dipropionic acid; HO.N(CH(CH3)COOH)2

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

Cu++ gl KNO3 25°C 0.10M C H K1=9.2 B2=12.65 1987AKa (48829)4467

Cu++ gl KNO3 25°C 0.10M U K1=9.2 B2=12.65 1987BKa (48830)4468
K1 determined by ligand exchange with tris(2-aminoethyl)amine, according to
G.Schwarzenbach, E.Freitag, Helv.Chim.Acta, 34, 1147 (1951)

C6H11NS2 L CAS 98-99-7 (3108)
Piperidine-1-carbodithioic acid;

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

Cu++ sp alc/w 20°C 89% U I K1=16.2 B2=31.00 1957JAa (48849)4469
Medium: 0-89% EtOH, 0.01 M NaOH. K1=11.9(0%),13.9(51.7%),15.1(75%);
K2=10.5(0%),12.9(51.7%),13.9(75%)

Cu++ sp alc/w 25°C 75% U K1=14.7 B2=28.40 1956JAa (48850)4470
Medium: 0.01 NaOH,75% EtOH

Cu++ sp alc/w 25°C 75% U K1=14.7 B2=28.4 1956JAb (48851)4471

C6H11N3 L (3071)
3-Methylhistamine, (4-(2-aminoethyl)-3-methylimidazole);

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

Cu++ gl oth/un 25°C 0.01M U K1=9.58 B2=16.14 1960LRc (48859)4472

C6H11N3 L CAS 34392-54-6 (4350)
4-(2-Methylaminoethyl)imidazole;

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

Cu++ gl KCl 25°C 0.10M U K1=8.35 1973BDdb (48861)4473
B(CuHL)=12.98
K(Cu+L=CuL(OH)+H)=1.16

C6H11N3 L CAS 16227-10-4 (8351)
4-Butyl-4H-1,2,4-triazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U	TIH	K1=2.58 B2= 5.12	1981RPb (48866)	4474

Medium: KClO4. Also data for 35 C and for 0.05 M KClO4.
Also DH and DS values.

 C6H11N3O L CAS 501-28-0 (4373)
 4-(2-Amino-3-hydroxypropyl)imidazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	oth/un	25°C	0.15M	U		K1=9.35 B2=15.95	1970Wka (48872)	4475

 C6H11N3O4 HL Gly-Asn CAS 1999-33-3 (283)
 Glycyl-asparagine; H2N.CH2.CO.NH.CH(CH2.CO.NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	NaClO4	30°C	0.10M	U	T H	K1=6.46 B(CuH-1L2)=5.12	1986AJb (48878)	4476

DH(K1)=-30.3 kJ mol⁻¹, DS=23.7 J K⁻¹ mol⁻¹, DH(CuH-1L2)=-25.7, DS=13.3

Cu++	gl	KCl	25°C	0.20M	C	HM	K1=5.99 B(CuH-1L)=1.67 B(CuH-2L)=-7.11 B(CuH-3L)=-17.91 B(Cu2H-3L2)=-2.70	1982GFa (48879)	4477
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DH(K1)=-28 kJ mol⁻¹, DS=21 + ternary complexes with many D and L amino acids

Cu++	gl	NaCl	25°C	0.12M	U		K1=5.95 B2= 9.05	1977BSb (48880)	4478
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 C6H11N3O4 HL Gly-Gly-Gly CAS 556-33-2 (415)
 Glycyl-glycyl-glycine; H2N.CH2.CO.NH.CH2.CO.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	nmr	KNO3	25°C	1.0M	U		K1=5.19 B2= 9.18 K(Cu+HL)=1.52 B(Cu2L2)=12.18 K(Cu+2HL)=2.30 K(2Cu+HL+L)=8.59	2002ISb (48918)	4479

Method: NMR-relaxation

Cu++	gl	KNO3	25°C	0.20M	U		K1=4.90 B(CuH-1L)=-0.28 B(CuH-2L)=-6.99 B(CuH-3L)=-16.72	1992HHa (48919)	4480
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Cu++	gl	NaNO3	30°C	1.00M	U	T M	K(CuL+imidazole)=1.74	1990PPb (48920)	4481
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K(CuL+2-ethylimidazole)=2.85

Cu++ gl NaClO4 25°C 0.1M C K1=5.12 1981KMc (48921)4482
B(CuH-1L)=0.01
B(CuH-2L)=-6.67

Cu++ gl KNO3 25°C 0.10M C K1=5.127 B2=9.6 1975BPa (48922)4483
B(CuH-1L)=-0.046
B(CuH-1L2)=2.9
B(CuH-2L)=-6.774

Cu++ gl KNO3 25°C 0.10M C K1=5.08 1975KMe (48923)4484
K(Cu+HL)=2.36
K(CuL+H)=5.02
*K(CuL)=-5.16
*K(CuH-1L)=-11.5

K(CuH-2L+H)=6.74

Cu++ gl KNO3 25°C 0.10M C K1=5.08 1974KMc (48924)4485
K(Cu+HL)=2.36
K(CuH-1L+H)=5.16
K(CuH-2L+H)=6.74
K(CuH-2LOH+H)=11.5

Cu++ gl KNO3 25°C 0.10M U K1=5.25 1973YNa (48925)4486
K(Cu+HL)=1.7
K(CuL+H)=4.4
K(CuH-1L+H)=5.23
K(CuH-2L+H)=6.73

Cu++ gl KNO3 25°C 0.10M U K1=5.24 1972SGd (48926)4487
K(CuH-1L+H)=5.22
K(CuH-2L+H=CuH-1L)=6.60

Cu++ gl NaClO4 25°C 0.10M U M 1972SGd (48927)4488
K(CuA+bpy)=4.87
B(CuL(bpy))=12.87
K(CuH-1L(bpy))+H=8.17

Cu++ gl NaClO4 25°C 0.10M U M K1=5.12 1971HBb (48928)4489
K(Cu+L=CuH-1L+H)=0.01
K(Cu+L=CuH-2L+2H)=-6.67
K(Cu+L=CuH-2LOH+3H)=-18.7
B(CuLA)=18.92

A=diethylenetriamine. B(CuL(en))=14.88. K(Cu+L+en=CuH-1L(en)+H)=8.05

Cu++ sp NaClO4 25°C 0.10M U 1971HBb (48929)4490
K(CuH-2LOH+H=CuH-2L)=12.0

Cu++ gl NaClO4 25°C 1.00M U 1971MMc (48930)4491

B(CuHL)=9.65

Cu++ gl NaClO4 25°C 1.00M U M K1=5.30 B2=9.66 1971MMc (48931)4492
K(Cu+L=CuH-1L+H)=-0.18
K(Cu+L=CuH-2L+2H)=-6.97
K(Cu+2L=CuH-1L2+H)=3.34
K(Cu+2L=CuH-2L2+2H)=-4.62
B(CuL(Gly))=12.36, K(Cu+L+Gly=CuH-1L(Gly)+H)=5.97

Cu++ ISE NaClO4 25°C 3.00M U B2=10.23 19700Sa (48932)4493

Cu++ gl NaClO4 25°C 0.10M U H K1=5.04 1968BLc (48933)4494
K(CuH-1L+H)=5.06
K(CuH-2L+H)=6.78

By calorimetry: DH(K1)=-26.3 kJ mol⁻¹, DS=7.9 J K⁻¹ mol⁻¹;
DH(CuH-1L+H)=-31.4, DS=-8.4; DH(CuH-2L+H)=-30.9, DS=26

Cu++ ISE NaClO4 25°C 3.0M U K1=5.66 B2=10.17 19680Sc (48934)4495
B(CuHL)=10.13
B(CuH2L2)=19.0
B(Cu2L2)=13.12
B(Cu2HL2)=17.3

B(Cu2H2L2)=21.0, K(CuH-1L+H)=5.79, K(CuH-2L+H)=6.73, K(CuH-1L2+H)=6.26,
K(CuH-2L2+H)=8.72, K(Cu2H-2L2+2H)=11.7, K(Cu2H-4L2+2H)=14.8

Cu++ gl KNO3 25°C 0.10M U K1=5.5 1966KMa (48935)4496
K(CuH-1L+H)=5.4
K(CuH-2L+H)=6.63
K(CuH-2LOH+H)=10.9

Cu++ gl oth/un 25°C 0.16M U K1=4.80 1963KRa (48936)4497
K(CuLOH+H)=5.10
K(CuL(OH)2+H)=6.89
K(CuL(OH)3+H)=11.9
K(CuLOH+L)=3.50

Cu++ gl KCl 25°C .058M U T B2=11.02 1957LYa (48937)4498
B2=11.58(0 C)

Cu++ gl KCl 30°C 0.09M U T H K1=5.51 1957MMa (48938)4499
K(CuL(OH)2+H)=6.94
K(CuLOH+H)=5.52

0.35 C: K1=5.74, K(CuL(OH)2+H)=7.32, DH=-16.7 kJ mol⁻¹, DS=75; K(CuLOH+H)=
6.02, DH=-18.8, DS=46. 48.8 C: K1=5.51, K(CuLOH)=4.83

Cu++ gl oth/un 20°C 0.0 U 1955DKa (48939)4500
K(CuH-1L+L)=3.6
K(CuH-1L+H)=5.2
K(CuH-2L+H)=7.0
K(Cu(H-1L)2+H)=8.6

Cu++ gl none 20°C 0.0 U K1=5.3 1955DKb (48940)4501

Cu++ gl none 25°C 0.0 U K1=5.41 B2=10.56 1955EMa (48941)4502

C6H11N3S L Amthamine (7531)
2-(2-Amino-4-methyl-1,3-thiazolyl-5-yl-ethylamine; CH3.C3NS(NH2)CH2CH2NH2

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

Cu++ gl KNO3 25°C 0.10M C K1=5.15 1998MDa (48993)4503

Analogue without the Me group (C5H9N3S): B(CuHL2)=19.56, B2=12.84

B(CuH-1L2)=3.20

C6H11N9 L (7008)

Di(2-(5-tetrazolyl)ethyl)amine; ((CHN4)CH2.CH2)2NH

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

Cu++ gl NaNO3 20°C 0.10M U K1=9.55 1981ESa (48996)4504

Cu++ gl NaNO3 20°C 0.1M U K1=9.55 1979ESa (48997)4505

C6H12NO5P H3L (6966)

N-(Phosphonomethyl)proline;

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

Cu++ gl KCl 25°C 0.20M C K1=13.23 B2=18.36 1994JKa (49029)4506

B(CuHL)=16.88

B(CuH-1L)=3.29

B(CuH2L2)=32.2

B(CuHL2)=27.64

C6H12N2 L TED / DABCO CAS 280-57-9 (3076)

1,4-Diazobicyclo[2,2,2]octane (triethylenediamine)

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

Cu++ sp non-aq 20°C 100% U K(CuA+L)=2.34 1986MBc (49038)4507

In CHCl3. CuA=cofacial binuclear bis(beta-diketone) copper(II) complex

C6H12N2O2 HL CAS 4883-72-1 (1076)

N-Cyclohexyl-N-nitrosohydroxylamine; C6H11.N(N:O).OH

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

Cu++ EMF non-aq 25°C 100% U K1=7.13 B2=11.90 1986RPa (49045)4508

Medium: 4-Methyl-2-pentanone, data from numerical method:7.23(.1),12.00(.08)

C6H12N2O2S2 L (2821)
N,N'-Dihydroxyethyl-dithiooxamide; HO.C2H4.NH.CS.CS.NH.C2H4.OH

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

Cu++ sp none 25°C 0.0 U K1=7.06 1976AMc (49048)4509

C6H12N2O3 HL B-Ala-B-Ala CAS 34322-87-7 (2118)
3-Alanyl-3-alanine; H2N.CH2.CH2.CO.NH.CH2.CH2.COOH

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

Cu++ gl NaClO4 25°C 0.10M M M K1=5.76 1981SPd (49056)4510
K(Cu+H2L=CuL+2H)=-7.91
K(Cu+H2L=CuLOH+3H)=-14.73
K(CuLOH+H)=6.82

K(Cu(bpy)+L)=5.22; K(CuH-1L(bpy)+H)=6.8

Cu++ gl KNO3 25°C 0.10M U K1=5.5 1969YHa (49057)4511

K(CuH-1L+H)=6.8

C6H12N2O3 HL Ala-Ala CAS 1948-31-8 (53)
Alanyl-alanine; H2N.CH(CH3).CO.NH.CH(CH3).COOH

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

Cu++ gl KNO3 25°C 0.10M C T K1=7.05 2000RNb (49085)4512
Data for 35 and 45 C.

Cu++ gl KCl 25°C 0.10M C M K1=5.44 1997BLb (49086)4513

B(CuH-1L)=1.75
B(CuH-2L)=-7.48
B(CuH-3L)=-18.87
B(CuH-1L2)=4.61

Tenary complexes with 1,13-dioxa-4,7,10,16,19,23-haxaazacyclotetracosane (A)
K(Cu2A+L)=6.18, K(Cu2A+HL)=4.79, K(Cu2AL=Cu2H-1AL+H)=-7.34 etc.

Cu++ sp KCl 25°C 0.10M C K1=5.31 1996DPa (49087)4514

B(CuH-1L)=1.74
B(CuH-2L)=-7.66
B(Cu2H-3L2)=-3.74

Method: ultraviolet circular dichroism.

Cu++ gl KCl 20°C 0.20M U 1981KRa (49088)4515

K(Cu+HL=CuL+H)=-2.78
K(Cu+HL=CuH-1L+2H)=-6.65
K(Cu+HL=CuH-2L+3H)=-16.07
K(Cu+2HL=CuL2+2H)=-5.92

K(Cu+2HL=CuH-1L2+3H)=-11.89; K(Cu+2HL=CuH-2L2+4H)=-21.90

 Cu++ cal KCl 25°C 0.20M C H K1=5.33 1977GNa (49089)4516
 B(CuH-1L)=1.43
 B(CuH-2L)=-8.01
 B(CuH-1L2)=4.13
 B(Cu2H-3L2)=4.39

DH and DS values for all complexes. DH(K1)=-28 kJ mol⁻¹, DS=7 J K⁻¹ mol⁻¹

 Cu++ gl KNO3 25°C 0.10M U K1=5.31 1977KMb (49090)4517
 K(CuH-1L+L)=2.96
 K(CuH-1L+CuH-1LOH)=2.36
 K(CuH-1L+H)=3.58

 Cu++ gl KCl 25°C 0.20M C H K1=5.33 1976GNb (49091)4518
 B(CuH-1L)=1.43
 B(CuH-2L)=-8.01
 B(CuH-1L2)=4.13
 B(Cu2H-3L2)=-4.39

Calorimetry: DH(K1)=-28.3 kJ mol⁻¹, DS=7J K⁻¹ mol⁻¹; DH(CuH-1L)=5.0, DS=44
 DH(CuH-2L)=48.9, DS=11; DH(CuH-1L2)=-21.8, DS=6; DH(Cu2H-3L2)=41.0, DS=53

 Cu++ gl NaClO4 25°C 0.10M U K1=5.38 1975SIa (49092)4519
 K(Cu(bpy)+L)=5.06

 Cu++ gl KNO3 25°C 0.10M U K1=5.37 1972BBc (49093)4520
 K(CuH-1L+H)=3.61

 C6H12N2O3 HL D-Ala-Ala CAS 1115-78-2 (2138)
 D-Alanyl-L-alanine; H2N.CH(CH3).CO.NH.CH(CH3).COOH

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

 Cu++ gl KNO3 25°C 0.10M U K1=5.60 1977KMb (49113)4521
 K(CuH-1L+L)=3.08
 K(CuH-1L+CuH-1L(OH))=2.36
 K(CuH-1L(OH)+H)=9.45
 K(CuH-1L+H)=4.04

 C6H12N2O3 HL DL-Ala-DL-Ala CAS 2867-20-1 (67)
 DL-Alanyl-DL-alanine; H2N.CH(CH3).CO.NH.CH(CH3).COOH

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

 Cu++ gl KCl 25°C 0.10M U M K1=5.92 1988YMa (49120)4522
 K(CuH-1L+H)=4.76
 B(CuL(ATP))=8.78

 Cu++ nmr KCl 20°C 0.20M U K1=5.72 1983KRa (49121)4523
 B(CuH-1L)=1.24
 B(CuH-2L)=-8.26

B(CuH-1L2)=3.97
B(CuH-3L2)=-5.14

Cu++ gl KCl 25°C 0.20M U M 1977NGa (49122)4524

B(CuH-1LA)=5.26
K(CuH-1L2+A=CuH-1LA+L)=1.13
B(CuH-1LB)=4.84
K(CuH-1L2+B=CuH-1LB+L)=0.72

HA=Gly, HB=Ala. Also with Ser, Thr, Orn, Lys,Asn,Asp,Gln,Glu,beta-Ala,norVal

C6H12N2O3 HL CAS 32595-87-7 (4380)

Glycyl-4-aminobutanoic acid; H2N.CH2.CO.NH.(CH2)3.COOH

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

Cu++ gl KNO3 25°C 0.10M U K1=5.66 1971LNa (49135)4525

K(CuH-1L+H)=6.62

C6H12N2O3 HL CAS 627-74-7 (3110)

Glycylglycine ethyl ester; H2N.CH2.CO.NH.CH2.CO.OCH2.CH3

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

Cu++ gl oth/un 25°C 0.02M U K1=4.66 B2=9.24 1956DRb (49139)4526

C6H12N2O3 L CAS 51513-59-8 (4381)

Glycylsarcosine methyl ester; H2N.CH2.CO.N(CH3).CH2.CO.OCH3

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

Cu++ gl KNO3 25°C 0.05M U K1=5.18 B2=9.09 1973NAa (49143)4527

C6H12N2O3 HL CAS 3544-43-2 (3109)

N,N-Dimethylglycylglycine; (CH3)2N.CH2.CO.NH.CH2.COOH

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

Cu++ gl oth/un 25°C 0.02M U K1=4.75 1956DRb (49145)4528

K(CuLOH+H)=3.85

K(CuL(OH)2+H)=9.19

C6H12N2O3 HL Sar-Sar CAS 38082-70-1 (3114)

Sarcosylsarcosine; CH3.NH.CH2.CO.N(CH3).CH2.COOH

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

Cu++ gl oth/un 25°C 0.01M U K1=6.01 B2=11.18 1959DLb (49148)4529

C6H12N2O3S HL Gly-S-Me-Cys CAS 61587-01-7 (2389)

Glycyl-S-methylcysteine; H2N.CH2.CO.NH.CH(CH2.S.CH3).COOH

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Cu++      gl  NaClO4 25°C 0.10M U    M    K1=5.70      1977SNa (49160)4530
              K(Cu(bpy)+L)=5.65
*****
C6H12N2O3S          HL    S-Me-Cys-Gly    CAS 61587-05-1 (2390)
S-Methylcysteinylglycine; H2N.CH(CH2.S.CH3).CO.NH.CH2.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Cu++      gl  NaClO4 25°C 0.10M U    M    K1=5.00      1977SNa (49162)4531
              K(Cu(bpy)+L)=4.24
*****
C6H12N2O4          H2L    EDDA          CAS 5657-17-0 (119)
1,2-Diaminoethane-N,N'-diethanoic acid; HOOC.CH2.NH.CH2.CH2.NH.CH2.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KNO3   35°C 0.20M C          K1=14.50 B2=19.45 1992YKa (49186)4532
-----
Cu++      gl  KNO3   25°C 0.10M U          K1=16.2   1983FSa (49187)4533
-----
Cu++      gl  KNO3   25°C 0.10M U    M    K1=15.90    1975ITa (49188)4534
-----
Cu++      gl  NaNO3  25°C 0.10M U          K1=17.47    1974SJa (49189)4535
              B(CuHL)=20.87
              B(CuH-1L)=6.34
              B(Cu2L)=20.9
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-----
Cu++      vlt NaClO4 25°C 0.20M U          B2=19.8    1973NHb (49190)4536
-----
Cu++      gl  KNO3   25°C 0.10M U    M    K(CuL+Gly)=4.64 1972IVb (49191)4537
-----
Cu++      gl  KNO3   25°C 0.10M U    M    K(CuL+en)=6.66 1970DNa (49192)4538
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-----
Cu++      gl  KCl    30°C 0.10M U          K1=16.2    1952CMc (49193)4539
*****
C6H12N2O4          H2L    N,N-EDDA      CAS 5835-29-0 (2333)
1,2-Diaminoethane-N,N'-diethanoic acid; H2N.CH2.CH2.N(CH2.COOH)2
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KCl    20°C 0.10M U          K1=15.90    1955SAa (49291)4540
              K(CuLOH+H)=9.27
*****
C6H12N2O4          HL    DL-Ala-DL-Ser CAS 3062-19-9 (3701)
DL-Alanyl-DL-serine; H2N CH(CH3).CO.NH.CH(CH2.OH).COOH
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      EMF NaClO4 25°C 0.10M U      K1=6.23      1967SMd (49310)4541
          (CuH-1L+H)=4.25
          (CuH-1L+L)=2.58
          (CuH-2L2+H)=10.16

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*****
C6H12N2O4      HL      Gly-Thr      CAS 7093-90-1 (2387)
Glycylthreonine; H2N.CH2.CO.NH.CH(CH(OH).CH3).COOH

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KCl      25°C 1.00M C      K1=5.43      1989FKa (49316)4542
          B(CuH-1L)=1.12
          B(CuH-1L2)=4.17
          B(CuH-2L)=-8.43
          K(CuH-1L2=CuH-1LOH+L+H)=-12.59

```

```

-----
Cu++      gl  NaClO4 25°C 0.10M U      M      K1=5.57      1977SNa (49317)4543
          K(Cu(bpy)+L)=5.56
          *****
C6H12N2O4      H2L      CAS 38115-91-2 (5415)
N,N'-Dimethyltartamide, CH3.NH.CO.CH(OH).CH(OH).CO.NH.CH3

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  NaClO4 25°C 1.0M M      M      K1=14.56 B2=22.98 1983PRa (49320)4544
          B(CuL((+)mandelate))=17.06
          B(CuL((-)mandelate))=17.78
          *****

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C6H12N2O4      H2L      CAS 4726-83-4 (5911)
N,N-Dihydroxyhexanediamide; HN(OH).CO.(CH2)4.CO.NH(OH)

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KCl      25°C 0.20M C      B(CuHL)=17.24
          B(Cu2L2)=28.19

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-----
Cu++      gl  NaNO3 25°C 0.10M C      K1=13.11      1989EHa (49324)4546
          B(CuHL)=17.06
          *****

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C6H12N2O4      HL      Thr-Gly      CAS 686-44-2 (2388)
Threonylglycine; H2N.CH(CH(OH).CH3).CO.NH.CH2.COOH

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Cu++      gl  KCl      25°C 1.00M C      K1=4.86      1989FKa (49341)4547
          B(CuH-1L)=1.09

```

B(CuH-1L2)=3.40
B(CuH-2L)=-8.57
B(CuH-2L2)=-6.90

K(CuH-1L2=CuH-1LOH+L+H)=-11.96; KB(CuH-1L2=CuH-2L2+H)=-10.41

Cu++ gl NaCl04 25°C 0.10M U M K1=5.06 1977SNa (49342)4548
K(Cu(bpy)+L)=4.17

C6H12N2O4S2 H2L Cystine CAS 923-32-0 (1404)
DL-Dithio-bis(2-amino-3-propanoic acid); (HOOC.CH(NH2).CH2.S)2

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

Cu++ gl NaCl 37°C 0.15M C T R 1995BEa (49351)4549
B(CuHL)=16.14
B(Cu2L)=14.86
B(Cu2L2)=28.16

IUPAC evaluation

Cu++ gl KCl 25°C 0.50M M T H K1=7.20 B2=14.03 1988MAa (49352)4550
Data for 25-40 C. DH(K1)=-26.2 kJ mol⁻¹, DS(K1)=-227 J K⁻¹ mol⁻¹.
DH(K2)=17.5, DS(K2)=-72.7.

Cu++ gl NaCl 37°C 0.15M U T 1985CFb (49353)4551
B(Cu2L2)=27.803
B(CuHL)=15.788
B(Cu2L)=14.61

Cu++ gl NaCl04 37°C 0.15M C M 1984BBa (49354)4552
B(CuH2L(His))=30.437

Cu++ gl NaCl04 37°C 0.15M C T 1981BKd (49355)4553
B(CuHL)=16.081
B(Cu2L)=14.86
B(Cu2L2)=28.241

C6H12N2O5 H2L (4384)
N-(Carboxymethyl)-N-(2-hydroxyethyl)aminoacethydroxamic acid;

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

Cu++ sp NaCl04 20°C 0.10M U 1983KJb (49366)4554
K(Cu+HL)=6.38

Cu++ sp NaCl04 20°C 0.10M U K1=12.65 1970MKa (49367)4555
K(Cu+HL)=6.81

Cu++ gl NaCl04 20°C 0.10M U K1=12.56 1970MKa (49368)4556
K(Cu+HL)=6.72
B(CuL(OH))=19.5

B(CuL(OH)2)=23.6

C6H12N2S2 L CAS 35840-78-9 (2824)
Tetramethyl-dithiooxamide; (CH3)2N.CS.CS.N(CH3)2

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

Cu++ sp none 25°C 0.0 U K1=8.89 1976AMc (49373)4557

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

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

Cu++ sp KNO3 25°C 1.00M U K1=-0.34 1970GHc (49379)4558

C6H12N4O3 HL CAS 35790-47-7 (1135)
Glycyl-glycyl-glycinamide; H2N.CH2.CO.NH.CH2.CO.NH.CH2.CO.NH2

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

Cu++ gl NaClO4 25°C 0.10M U K1=4.77 1975DBa (49388)4559

B(CuH-1L)=-0.51

B(CuH-2L)=-7.50

B(CuH-3L)=-16.19

C6H12N4O3 L CAS 4862-18-4 (4382)
Nitrilotriacetamide; N(CH2.CO.NH2)3

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

Cu++ sp KCl ? 0.25M U K1=3.68 1970PRa (49390)4560

C6H12N4O6 H3L (2677)
Nitrilotriacetohydroxamic acid; N(CH2.CO.NH.OH)3

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

Cu++ gl NaClO4 25°C 0.10M C K1=18.66 B2=26.92 1979LSc (49396)4561

B(CuH3L)=32.41

B(CuH2L)=29.58

B(CuHL)=23.99

B(CuH-1L)=9.53

Cu++ gl NaClO4 20°C 0.10M U K1=21.1 1975KAe (49397)4562

K(Cu+HL)=14.25

K(CuL+H)=4.80

K(Cu+H3L)=5.50

C6H12N6S2 H2L (2765)

Diacetyl-bis(thiosemicarbazone); CH3.C(:N.NH.CS.NH2).C(:N.NH.CS.NH2).CH3

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

Cu++ EMF KNO3 25°C 0.10M U K1=23.48 1974WBa (49403)4563
Competition with diaminoethane. Other thiosemicarbazones also studied

C6H12O2 HL 4-Me-valeric CAS 646-07-1 (5862)
4-Methylpentanoic acid; (CH3)2CH.CH2.CH2.COOH

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

Cu++ gl NaNO3 25°C 0.10M C I M K1=1.73 1988LTc (49413)4564
K(Cu(phen)+L)=1.85

Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures

C6H12O2 HL CAS 142-62-1 (964)
Hexanoic acid; CH3.(CH2)4.COOH

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

Cu++ dis non-aq 25°C 100% C I 2000NYa (49420)4565
K(Cu+2HA(o)=CuL2(o)+2H)=-8.06

Method: distribution from 0.10 M NaClO4 into pentan-1-ol. Also data for
hexan-1-ol, heptan-1-ol and octan-1-ol. K(2Cu+4HA(o)=Cu2L4(o)+4H)=-14.17

Cu++ gl KNO3 25°C 0.10M C K1=1.51 1975IPa (49421)4566

Cu++ sol oth/un 25°C ->0 U K1=2.05 1951LWa (49422)4567

C6H12O2S HL CAS 22683-64-3 (4376)
(1-Methylpropylthio)ethanoic acid; CH3.CH2.CH(CH3).S.CH2.COOH

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

Cu++ gl diox/w 30°C 50% U K1=3.6 B2=6.40 19710Ta (49434)4568
Medium: 50% dioxan, 1 M KNO3

C6H12O2S HL CAS 20600-62-8 (4377)
(2-Methylpropylthio)ethanoic acid; CH3.CH(CH3).CH2.S.CH2.COOH

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

Cu++ gl diox/w 30°C 50% U K1=3.5 B2=6.30 19710Ta (49437)4569
Medium: 50% dioxan, 1 M KNO3

C6H12O2S HL CAS 20600-61-7 (4375)
(Butylthio)ethanoic acid; CH3.(CH2)3.S.CH2.COOH

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

Cu++ ISE KNO3 25°C 0.10M C K1=1.95 1972FGb (49441)4570
By competition with Ag+ using Ag ISE

Cu++ gl diox/w 30°C 50% U K1=3.6 B2=6.50 19710Ta (49442)4571
Medium: 50% v/v dioxan, 1 M KNO3

C6H12O2S HL CAS 24310-22-3 (4378)
(t-Butylthio)ethanoic acid; (CH3)3C.S.CH2.COOH

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

Cu++ gl NaClO4 25°C 1.00M U K1=2.49 B2=4.92 1971SAb (49448)4572
B3=4.81

C6H12O2S2 HL CAS 35088-67-6 (2829)
1-Ethylthio-2-thiocarboxymethylethane; C2H5.S.CH2.CH2.S.CH2.COOH

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

Cu++ gl NaClO4 25°C 1.0M C K1=3.11 B2= 5.97 1980PPd (49449)4573
By spectrophotometry, K1=2.05

C6H12O2Se HL (4379)
(Butylseleno)ethanoic acid; C4H9.Se.CH2.COOH

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

Cu++ ISE KNO3 25°C 0.10M C K1=1.95 1972FGb (49453)4574
By competition with Ag+ using Ag ISE

C6H12O6 L D-Fructose CAS 57-48-7 (1561)
D-Fructose

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

Cu++ ISE KNO3 25°C 0.70M U K1=-0.59 1986HAe (49533)4575

C6H12O6 L D-Galactose CAS 59-23-4 (1559)
D-Galactose

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

Cu++ ISE KNO3 25°C 0.70M U K1=-0.62 1986HAe (49555)4576

C6H12O6 L D-Glucose CAS 492-62-6 (1560)
D-Glucose

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

Cu++ ISE KNO3 25°C 0.70M U K1=-0.82 1986HAe (49572)4577

 C6H12O6 L D-Mannose CAS 3458-28-4 (1562)
 D-Mannose

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

 Cu++ ISE KNO3 25°C 0.70M U K1=-0.27 1986HAe (49596)4578

 C6H12O6 L Sorbose CAS 87-79-6 (930)
 L(-)-Sorbose;

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

 Cu++ ISE KNO3 25°C 0.70M U K1=-0.55 1986HAe (49609)4579

 C6H12O6 L Inositol CAS 87-89-8 (2285)
 myo-Inositol, meso-Inositol;

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

 Cu++ ISE KNO3 25°C 0.70M U K1=-0.54 1986HAe (49633)4580

 C6H12O7 HL Galactonic acid (6942)
 2R,3S,4S,5R,6-Pentahydroxo-hexanoic acid, D-Galactonic acid;

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

 Cu++ gl NaClO4 25°C 0.10M C K1=2.57 B2= 4.88 1998GGa (49643)4581
 B(CuH-1L2)=-1.20
 B(CuH-2L2)=-8.38
 B(Cu2H-3L2)=-8.08
 B(Cu2H-4L2)=-16.94
 B(CuH-3L)=-21.76

 Cu++ gl NaNO3 20°C 0.10M C K1=3.04 B2= 4.84 1992ESa (49644)4582
 K(CuL=CuH-2L+2H)=-11.33
 B(Cu2H-3L2)=-7.54
 *K(CuH-2L)=-10.86

 C6H12O7 HL Gluconic acid CAS 526-95-4 (904)
 D-Gluconic acid, 2,3,4,5,6-Pentahydroxyhexanoic acid; HO.CH2(CHOH)4.COOH

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

 Cu++ gl NaClO4 25°C 0.10M C K1=2.51 B2= 4.59 1998GGa (49664)4583
 B(CuH-1L2)=-0.60
 B(CuH-2L2)=-8.28
 B(Cu2H-3L2)=-7.25
 B(Cu2H-4L2)=-15.46

B(CuH-3L)=-20.96

Cu++ gl NaNO3 20°C 0.10M C K1=3.02 B2= 6.08 1992ESa (49665)4584
K(CuL=CuH-2L+2H)=-11.96
B(Cu2H-3L2)=-6.58
*K(CuL2)=-5.55

Cu++ ISE KNO3 25°C 0.70M U K1=2.41 1986HAe (49666)4585
Data also for many mono- and disaccharide acids

Cu++ ISE KNO3 25°C 0.50M C 1985BSb (49667)4586
B(Cu2H-4L2)=-13.7

By combined pM, pH measurements.

Cu++ gl NaClO4 25°C 1.00M U K1=2.15 B2=3.60 1983VIa (49668)4587
B(CuH-1L)=-3.47
B(CuH-2L)=-8.82
B(CuH-1L2)=-1.64
B(Cu2H-3L)=-9.7

Additional method: copper amalgam electrode

Cu++ gl KCl 25°C 0.20M U K1=2.57 1981FDb (49669)4588

Cu++ gl oth/un ? ? U 1976PPd (49670)4589
K(Cu+H2L=CuHL+H)=-1.88
K(CuL+H)=4.80

Cu++ vlt oth/un 25°C 0.20M U 1955PJa (49671)4590
K(Cu+L+2.50H)=18.3
K(Cu+2L+2.50H)=19.6

C6H12O7 HL Gulonic acid CAS 526-97-6 (7555)
Gulonic acid, xylosecarboxylic acid;HOCH2(CHOH)4COOH

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

Cu++ gl NaClO4 25°C 0.10M C K1=2.47 B2= 4.55 1998GGa (49777)4591
B(CuH-1L2)=-0.74
B(CuH-2L2)=-8.32
B(Cu2H-3L2)=-6.98
B(Cu2H-4L2)=-14.98

L-Isomer. B(CuH-3L)=-20.08. Identical values for D-Gluconic acid

C6H12S3 L (6863)
1,4,7-Trithiacyclononane;

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

Cu++ vlt oth/un ? ? U M 1993SKd (49779)4592
K=7.77

Method:Cyclic voltammetry

K: Cu(II)+2Cu(I)L+Cu(II)(Cu(I)L)2=Cu(I)(Cu(I)L)2+Cu(II)L2.

C6H13N L CAS 108-91-8 (314)

Cyclohexylamine; C6H11.NH2

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

Cu++ gl NaClO4 37°C 0.15M C K1=7.67 1974Mwb (49797)4593

C6H13N L MePiperidine CAS 626-67-5 (1254)

N-Methylpiperidine; C5H10N.CH3

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

Cu++ gl diox/w 30°C 50% U K1=17.90 B2=34.58 1979Nwa (49808)4594

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

Cu++ gl NaNO3 25°C 0.10M C M K1=8.20 B2=15.06 2004SSa (49846)4595

B(CuH-1L)=1.13

B(CuH-2L)=-9.62

B(CuLA)=13.75

B(CuHLA)=18.25

B(CuH-1LA)=6.35. HA is 6-aminopenicillanic acid.

Cu++ gl alc/w 25°C 40% C K1=9.21 B2=16.88 2003DKa (49847)4596

B(CuHL)=7.89

Medium: 40% v/v EtOH/H2O, 0.10 M NaCl.

Cu++ gl NaNO3 25°C 0.10M M M K1=8.23 B2=15.27 2002SKa (49848)4597

B(CuAL)=17.73

A is picolylamine

Cu++ gl KNO3 25°C 0.10M U M K1=8.16 B2=15.02 1998SYa (49849)4598

B(CuAL)=11.71

B(CuH-1AL)=5.44

HA is 2,3,4-trihydroxybutanoic acid (threonic acid).

Cu++ gl KNO3 25°C 0.10M U M 1997LZa (49850)4599

B(CuLA)=22.78

B(CuHLA)=28.25

HA=6-(2'-Hydroxybenzyl)-1,4,8,11-tetraazacyclotetradecane-5,7-dione. Data for 3'-methoxy-, 3',5'-dibromo- and 5'-bromo-2'-hydroxybenzyl- derivatives

Cu++ gl NaNO3 25°C 0.10M M M K1=8.46 B2=15.54 1997SKc (49851)4600

B(CuAL)=13.67

B(CuH-1AL)=5.80

HA is glycyl-DL-leucine.

Cu++ gl KNO3 25°C 0.20M U T HM K1=7.90 1996JLd (49852)4601

K(Cu(bpy)+L)=7.58

Data for 25-45 C. DH(K1)=-7.1 kJ mol⁻¹, DS(K1)=175 J K⁻¹ mol⁻¹;

DH(Cu(bpy)L)=-8.8, DS(Cu(bpy)L)=116.

Cu++ gl NaClO4 25°C 0.20M U T M K1=8.49 B2=16.01 1993PPa (49853)4602

K(CuA+L)=7.36

A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Cu++ gl KCl 25°C 0.10M C TIH T K1=8.27 B2=15.32 1993SKa (49854)4603

IUPAC evaluation

Cu++ vlt NaNO3 25°C 1.0M C M K1=8.20 B2=15.45 1992KMa (49855)4604

B(CuL(tartrate))=11.65

Method: polarography. Medium: pH 8.0.

Cu++ vlt NaNO3 25°C 1.0M C 1992KMa (49856)4605

K1eff=8.20

B2eff=15.45

Method: differential pulse polarography. Medium: pH 8.0

Cu++ vlt NaClO4 25°C 1.0M U B2=15.26 1990CSc (49857)4606

K(Cu+HL)=1.36

K(Cu+2HL)=2.26

Method: polarography.

Cu++ vlt NaClO4 25°C 1.0M C 1990SRc (49858)4607

B(Cu(gly)L)=15.64

Method: polarography.

Cu++ gl NaClO4 25°C 0.10M C M K1=8.16 B2=15.02 1988CLa (49859)4608

B(CuL(acetylglycinate))=10.51

Cu++ cal NaClO4 25°C 0.10M C H 1988LGA (49860)4609

DH(K1)=-28.9 kJ mol⁻¹, DH(K2)=-28.7 kJ mol⁻¹. For HA=N-acetylglycine,

DH(B(CuAL))=-26.6 kJ mol⁻¹, DS(B(CuAL))=112 J K⁻¹ mol⁻¹.

Cu++ ISE KNO3 25°C 0.10M C M K1=8.38 B2=15.41 1984PDb (49861)4610

K(Cu(nta)+L)=5.45

Method: Cu ion selective electrode.

Cu++ gl NaNO3 25°C 0.10M U T K1=8.50 B2=15.79 1981ISb (49862)4611

K values for D, L and DL isomers. For the allo isomer, K1=8.09, K2=6.95

Cu++ vlt KNO3 30°C 1.00M C M T K1=8.30 B2=15.30 1980SGc (49863)4612

Cu++ gl KNO3 30°C 1.00M U M K1=8.30 B2=15.30 1980SGd (49864)4613

B(CuL(malonate))=12.30

B(CuL(oxalate))=12.90

Cu++ cal NaNO3 25°C 0.10M C H 1978ISc (49865)4614
For L-Ile: DH(K1)=-26.2 kJ mol⁻¹, DS(K1) =75 J K⁻¹ mol⁻¹; DH(K2)=-18.3,
DS(K2)=78. For D-allo-Ile: DH(K1)=-24.0, DS(K1)=74; DH(K2)=-18.0, DS=73

Cu++ vlt oth/un 25°C 1.10M U T K1=8.4 B2=15.4 1965VZa (49866)4615

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

Cu++ gl alc/w 25°C 40% C K1=9.20 B2=16.57 2003DKa (49970)4616
B(CuHL)=6.84
Medium: 40% v/v EtOH/H2O, 0.10 M NaCl.

Cu++ gl alc/w 37°C 40% C M K1=7.66 B2=14.02 1998AAa (49971)4617
B(CuLA)=12.66
K(CuL+A)=5.10
K(CuA+L)=6.11
B(CuLC)=12.54
HC:2[o-hydroxyphenylazo]-2-cyanomethyl benzimidazole. 40% EtOH/H2O, I=0.15
H2A:5-[o-hydroxyphenylazo] barbituric acid. K(CuL+C)=4.88, K(CuC+L)=7.02.

Cu++ gl alc/w 37°C 40% C K1=7.66 B2=14.02 1997AAb (49972)4618
Medium: 40% v/v EtOH/H2O, 0.15 M NaClO4.

Cu++ gl NaNO3 25°C 0.10M U K1=7.20 1997ISd (49973)4619

Cu++ gl KNO3 25°C 0.20M U T HM K1=7.22 1996JLd (49974)4620
K(Cu(bpy)+L)=6.42
Data for 25-45 C. DH(K1)=-17.6 kJ mol⁻¹, DS(K1)=79 J K⁻¹ mol⁻¹;
DH(Cu(bpy)L)=-14.2, DS(Cu(bpy)L)=80.

Cu++ gl KNO3 25°C 0.10M M M K1=8.39 B2=15.54 1995SHc (49975)4621
K(Cu(ada)+L)=6.19
ada: N-(acetamido)-iminodiethanoic acid. K(H+L)=9.51.

Cu++ gl KNO3 25°C 0.10M C M 1994CDb (49976)4622
B(CuAL)=14.89
B(CuHAL)=19.3
B(CuH2AL)=23.7
A:6-Deoxy-6-N-histamine-b-cyclodextrin. Data also for D-isomer

Cu++ gl NaClO4 25°C 0.20M U T M K1=8.58 B2=15.87 1993PPa (49977)4623
K(CuA+L)=7.99
A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Cu++ gl KCl 25°C 0.10M C TIH T K1=8.26 B2=15.20 1993SKa (49978)4624
IUPAC evaluation. DH(K1)=-23.3 kJ mol⁻¹, DH(B2)=-50

Cu++ gl KNO3 35°C 0.20M C M K1=8.04 1992YKa (49979)4625
B(Cu(edda)L)=18.89
B(Cu(en)L)=17.60
K(Cu(edda)+L)=4.39
K(Cu(en)+L)=8.56

Cu++ gl KNO3 25°C 0.10M C H 1990BPa (49980)4626
B(CuL(L-His))=17.79
B(CuHL(L-His))=21.4
B(CuL(D-His))=17.74
B(CuHL(D-His))=21.3
DH(CuL(L-His))=-64.9, DH(CuL(D-His))=-63.3 kJ mol⁻¹.

Cu++ gl KNO3 25°C 0.10M U I K1=8.34 B2=14.48 1990Rab (49981)4627
Data also for 10% w/w EtOH/H2O (B1=8.62; B2=15.17) and 25% (9.31; 15.93)

Cu++ gl alc/w 30°C 40% M M K1=9.10 B2=15.70 1988ARb (49982)4628
K(CuA+L)=7.91
B(CuAL)=17.41

Medium: 40% EtOH/H2O, 0.05 M KNO3. HA=acetylacetone

Cu++ gl KNO3 25°C 0.10M C M T K1=8.19 B2=15.10 1988ZZa (49983)4629
ternary complexes: B(CuHL(DOPA))=24.90; B(CuL(DOPA))=18.45;
B(CuL(Dopamine))=18.21

Cu++ gl KNO3 35°C 0.20M C M T K1=8.04 B2=14.77 1987PMa (49984)4630

Cu++ ISE KNO3 25°C 0.10M U M K1=7.59 1986DVa (49985)4631
K(CuL+salicylate)=10.04

Cu++ gl NaCl04 37°C 0.15M C M T K1=7.902 B2=14.533 1984BPd (49986)4632
B(CuH-1L)=2.324
B(CuL(His))=17.183

Cu++ ISE KNO3 25°C 0.10M C M K1=8.41 B2=15.13 1984PDb (49987)4633
K(Cu(nta)+L)=5.29

Method: Cu ion selective electrode.

Cu++ sp NaCl 20°C 0.15M U M 1983VDa (49988)4634
K(CuA+L)=6.83

H2A=orotic acid (C5H4N2O4), 2,4-(1H,3H)-pyrimidinedione-6-carboxylic acid

Cu++ gl diox/w 25°C 10% C I K1=8.39 B2=15.53 1983ZRa (49989)4635
Data at 0% dioxan (K1=8.19, K2=6.94), 20%, 30%, 40% (K1=9.11, K2=8.13),
50%, 60% and 70% (K1=10.01, K2=8.47)

Cu++ gl NaCl04 25°C 0.10M C M T 1980FSa (49990)4636

B(Cu(bpy)L)=16.03
 K(Cu(bpy)+L)=8.03
 B(CuL(phen))=17.22
 K(Cu(phen)+L)=7.97

 Cu++ gl KNO3 25°C 0.10M U M R K1=8.276 B2=15.17 1977BPa (49991)4637
 B(CuLA)=17.66
 B(CuL(His))=17.69
 B(CuHL(His))=22.20

HA=D-His

 Cu++ oth KNO3 20°C 0.10M U M K1=8.6 B2=15.60 1964J0a (49992)4638
 Method: paper electrophoresis. Ternary complexes with NTA

 Cu++ gl oth/un 25°C 0.01M U K1=7.00 B2=15.35 1959DLb (49993)4639
 K1 < K2 ?

 Cu++ vlt oth/un 25°C 0.40M U I K1=7.78 1958BRc (49994)4640
 At I=1.5 M K1=7.77; I=3 M: K1=7.55, B2=15.00. By spectrophotometry B2=14.97

 Cu++ sp oth/un 25°C 3.0M U K1=7.55 B2=14.98 1957BRc (49995)4641

 Cu++ ISE oth/un 25°C 0.10M U K1=8.11 B2=15.84 1957BRc (49996)4642

 Cu++ gl oth/un 25°C 0.01M U T K1=7.89 B2=14.34 1949MMa (49997)4643

C6H13NO2 HL Norleucine CAS 616-06-8 (602)
 2-Aminohexanoic acid (2-Aminocaproic acid) CH3.(CH2)3.CH(NH2).COOH

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

 Cu++ gl KCl 25°C 0.10M C TIH T K1=8.18 B2=14.88 1993SKa (50137)4644
 IUPAC evaluation

 Cu++ sp NaCl 20°C 0.15M U M 1983Vda (50138)4645
 K(CuA+L)=6.70

H2A=orotic acid (C5H4N2O4), 2,4-(1H,3H)-pyrimidinedione-6-carboxylic acid

 Cu++ gl KNO3 30°C 0.10M U M 1980MSb (50139)4646
 K(Cu(His)+L)=4.45

 Cu++ gl KNO3 25°C 0.10M C T K1=8.18 B2=14.88 1975IPb (50140)4647

 Cu++ EMF oth/un 25°C 0.16M U I K1=8.46 1958BRc (50141)4648
 At I=0 K1=8.71

 Cu++ vlt oth/un 25°C 0.10M U B2=15.2 1954Lda (50142)4649
 Medium: 0.1 M KH2PO4

 Cu++ gl oth/un 20°C 0.01M U B2=15.5 1950ALa (50143)4650

C6H13NO2 HL N-Methylvaline CAS 104883-54-7 (6131)
3-Methyl-2-(N-methylamino)butanoic acid; CH3.NH.CH(CH(CH3)2)COOH

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

Cu++ gl KCl 25°C 0.10M U K1=7.32 B2=13.86 1977KDa (50202)4651

C6H13NO2 HL CAS 1606-01-5 (2907)
N,N'-Diethylglycine; (C2H5)2N.CH2.COOH

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

Cu++ gl NaClO4 21°C 0.10M M T K1=7.34 B2=13.70 1984LOb (50231)4652
B(CuHL)=12.06
B(CuH-1L2)=3.03

Cu++ sp non-aq 25°C 100% U K1=3.60 B2=6.26 1980LZc (50232)4653
Medium: MeCN

Cu++ gl NaClO4 25°C 0.10M U K1=6.88 B2=12.86 1954BCb (50233)4654

C6H13NO2 HL CAS 3182-81-8 (3112)
N-Butylglycine; CH3.CH2.CH2.CH2.NH.CH2.COOH

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

Cu++ gl NaClO4 25°C 0.10M U K1=7.32 B2=13.52 1954BCb (50238)4655

C6H13NO2 L CAS 4070-48-8 (8658)
Valine methyl ester;

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

Cu++ gl NaNO3 25°C 0.10M M M 1997SKc (50242)4656
K(CuH-1A+L)=1.62

HA is glycyl-DL-leucine.

C6H13NO2S HL Ethionine CAS 67-21-0 (1909)
2-Amino-4-(ethylthio)butanoic acid; CH3.CH2.S.CH2.CH2.CH(NH2).COOH

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

Cu++ gl KNO3 35°C 0.20M C M K1=7.54 1987PMa (50252)4657

Cu++ gl KNO3 25°C 0.10M U K1=8.43 1964LMa (50253)4658

C6H13NO3 HL CAS 28120-18-5 (1896)
2-Aminoxy-4-methyl-pentanoic acid;CH3.CH(CH3).CH2.CH(O.NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	U		K1=4.07	1985Wta	(50270)4659

C6H13NO3			HL				CAS 4383-88-4	(1895)	
2-Aminoxyhexanoic acid; CH3.CH2.CH2.CH2.CH(O.NH2).COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.50M	U		K1=4.09	1985Wta	(50274)4660

C6H13NO3			HL				(3113)		
N-Ethyl-N-2-hydroxyethylglycine; (HO.CH2.CH2)(CH3.CH2)N.CH2.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	oth/un	20°C	0.05M	U		K(CuL2(OH)+H)=9.69	1957PAa	(50280)4661

C6H13NO4			L				CAS 73285-50-4	(7138)	
1-Deoxynojirimycin; glucosidase inhibitor									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	NaNO3	25°C	0.10M	C		K1=3.46 B(CuH-1L)=-0.04 B(CuH-2L2)=-7.44 B(CuH-3L2)=-19.14	1996CDb	(50282)4662

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
Cu++	sp	KNO3	25°C	1.00M	U	M	K1=8.24 K(Cu(ATP)+L)=6.57	1992CSb	(50302)4663

Cu++	gl	KNO3	25°C	0.10M	C		K1=8.07 B2=13.47 K(CuH-1L+H)=7.09 K(CuH-2L+H)=10.40 K(CuH-1L+H+L)=12.36	1991KNa	(50303)4664

Cu++	gl	KNO3	30°C	0.10M	U	M	K1=8.08 K(CuH-1L+H)=7.07 K(Cu(phen)+L)=5.90	1984GHb	(50304)4665

Cu++	vlt	NaClO4	25°C	0.20M	U		K1=10.3 B2=13.5 B3=15.1 B(CuL(OH))=15.9 B(CuL2(OH))=17.5	1971NTa	(50305)4666

B(CuL(OH)2)=19.0

B(Cu(L2(OH)2)=20.1, B(CuL(OH)3)=20.7

Cu++ sp NaClO4 20°C 0.10M U K1=8.37 B2=13.84 1967SKb (50306)4667
K(CuH-2L+L+2H=CuL2)=12.0

By paper electrophoresis

Cu++ oth KNO3 20°C 0.10M U K1=8.6 B2=13.60 1964JMa (50307)4668
Method: paper electrophoresis

Cu++ gl KCl 30°C 0.10M U K1=8.15 B2=13.35 1957FCa (50308)4669

Cu++ gl oth/un 30°C 0.10M U 1957Mca (50309)4670
K(CuL(OH)+H)=6.8

Cu++ gl KCl 30°C 0.10M U K1=8.15 B2=13.35 1953CCa (50310)4671

C6H13NO5 L D-Mannosamine CAS 5505-63-5 (6426)
2-Amino-2-deoxy-D-mannose;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.10M C B2=9.68 1990KBa (50435)4672
B(CuH-1L2)=2.72
B(CuH-2L2)=-3.66
B(CuH-3L2)=-13.0

For the methyl-alpha-glycoside: K1=4.81, B(CuH-1L2)=2.91,, B(CuH-2L2)=-4.29.
For ab-GalN-OME: K1=4.40, B2=8.40, B(CuH-2L2)=2.27, B(CuH-2L2)=-5.18

Cu++ vlt NaClO4 25°C 0.15M C K1=7.00 B2=10.43 1990UKb (50436)4673
Method: polarography.

C6H13NO5 L D-Glucosamine CAS 3416-24-8 (565)
2-Amino-2-deoxyglucose;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.10M C M B2=9.02 1993BDa (50447)4674
B(CuH-2L2)=-5.26

B(CuLA)=8.16, B(CuH-1LA)=2.28, B(CuH-2LA)=-5.18, B(CuH-3LA)=-13.14
HA=D-lactobionic acid

Cu++ vlt NaClO4 25°C 0.15M C K1=5.12 B2= 8.85 1988UKa (50448)4675
Method: d.c. polarography.

Cu++ gl NaCl 37°C 0.15M U M K1=3.54 1986AIc (50449)4676
K(Cu+L+OH)=11.56
B(Cu(OH)2L2)=20.96
K(Cu+L+2OH)=18.50

Cu++ gl NaCl 25°C 0.15M U B2=9.02 1986LDc (50450)4677
B(CuH-2L2)=-5.26
B(CuH-3L2)=-13.77

Cu++ gl NaCl 25°C 0.15M U K1=3.06 B2=8.76 1985MDa (50451)4678
B(CuH-1L2)=0.83
B(CuH-2L2)=-5.82
B(CuH-3L2)=-15.08

Cu++ gl NaCl 25°C 0.15M U K1=3.06 B2= 8.76 1985MDb (50452)4679
B(CuH-1L2)=0.83
B(CuH-2L2)=-5.82
B(CuH-3L2)=-15.08

Cu++ gl NaNO3 25°C 0.10M U I K1=5.17 B2=9.26 1984GMa (50453)4680

Cu++ gl NaNO3 30°C 0.10M U K1=4.8 1979MNa (50454)4681

C6H13NO5 L (7132)

6-Amino-6-deoxy-D-glucose;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.10M C 1996JCa (50467)4682
B(Cu2H-2L2)=0.03
B(Cu2H-3L2)=-6.87
B(Cu2H-4L2)=-15.64

C6H13NO5 L D-Galactosamine CAS 1772-03-8 (2553)
D-Galactosamine, 2-Amino-2-deoxy-D-galactopyranose. chondrosamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl NaCl 25°C 0.15M U K1=4.20 B2=9.13 1988Rkb (50469)4683
B(CuH-1L)=2.37
B(CuH-2L2)=-5.21
B(CuH-3L2)=-15.44

Cu++ vlt NaCl04 25°C 0.15M C K1=5.23 B2= 9.02 1988UKa (50470)4684
Method: d.c. polarography.

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

Cu++ gl KNO3 25°C 0.10M U TIH K1=7.70 2004EAa (50482)4685
Data for 5-45 C. DH(K1)=-41.17 kJ mol⁻¹, DS=-9.29 J K⁻¹ mol⁻¹. Values for
0.02 -0.15 M KNO3 and 60-75% v/v acetone, 75% EtOH and 75% dioxane/H2O

Cu++ gl KNO3 30°C 0.10M U M K1=7.30 1985TGa (50483)4686
K(Cu+L)=7.12
K(Cu(bpy)+L)=5.31

Cu++ vlt NaClO4 30°C 0.20M C K1=10.6 B2=12.40 1984KKd (50484)4687
K(Cu+OH+L)=14.0
K(Cu+OH+2L)=16.80
K(Cu+2OH+L)=18.6
K(Cu+2OH+2L)=20.35

Method: polarography. Medium pH 8.0

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

Cu++ gl NaClO4 25°C 0.10M C K1=8.12 B2=14.67 1998GGa (50518)4688
B(CuHL)=11.1
B(CuH2L2)=22.81
B(CuH-1L2)=5.23
B(CuH-2L2)=-4.94

B(Cu2H-3L2)=-3.22, B(Cu2H-4L2)=-13.03.

Cu++ gl NaClO4 25°C 1.00M C M K1=7.72 B2=14.39 1991DGA (50519)4689
B(CuH-1L2)=4.88
B(CuH-2L2)=-5.12
B(CuAL)=11.81
B(CuH-1AL)=7.02

HA=D-galacturonic acid.

Cu++ gl KNO3 30°C 0.10M U K1=8.0 B2=14.60 1966MSa (50520)4690

C6H13NO7P2 H4L (1581)
Cyclopropyl(N-(phosphonoacetyl)amino)methylphosphonic acid;
C3H5.CH(PO3H2)NH.CO.CH2.PO3H2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KCl 25°C 0.20M C K1=6.41 B2=8.98 1989KFa (50539)4691
B(CuHL)=12.30
B(CuH-1L)=-1.26
B(CuH-1L(OH))=-11.19
B(Cu2H-2L2(OH))=-9.89

C6H13N3O2 L (3702)
N-(2-Dimethylaminoethyl)oxamide; H2N.CO.CO.NH.CH2.CH2.N(CH3)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KCl 23°C 0.50M U K1=4.54 1968KZa (50550)4692

K(CuH-1L+H)=4.92
 K(CuOH(H-1L)+H)=8.44
 K(CuOH(H-2L)+H)=10.31
 K(CuH-1L+CuOH(H-1L))=2.94

C6H13N3O3 HL Citrulline (579)
 2-Amino-5-ureidovaleric acid; H2N.CO.NH.CH2.CH2.CH2.CH(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	35°C	0.20M	C	M		K1=7.46 B2=13.89	1987PRa	(50560)4693
Cu++	ISE	diox/w	25°C	20%	U			K1=8.29 B2=15.19	1980YTa	(50561)4694
Cu++	gl	KNO3	25°C	0.10M	U			K1=7.92 B2=14.39	1970CMc	(50562)4695

C6H13N5O L CAS 7420-18-0 (4385)
 N,N-Anhydrobis(beta-hydroxyethyl)biguanide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	KCl	?	0.10M	U			K1=9.70 B2=17.82	1971KLa	(50592)4696

C6H13O3N HL (7070)
 NN-Dimethylthreonine; (CH3)2N.CH(CH(OH)CH3)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.10M	C			K1=5.50 B2=9.80	1994BPb	(50594)4697
								B(CuH-1L)=-2.10		
								B(CuH-1L2)=1.6		
								B(CuH-2L2)=-8.2		

C6H13O3P H2L CAS 1005-23-8 (520)
 Cyclohexylphosphonic acid; C6H11.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	U			K1=3.97	1981WNa	(50598)4698

C6H13O9P H2L CAS 59-56-3 (3049)
 alpha-D-Glucose-1-phosphoric acid; Glucopyranose-1-phosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaCl	25°C	0.15M	C	H		K1=2.736	1991KLa	(50613)4699
								B(CuH-1L)=-4.080		
								B(CuH-2L)=-11.026		

DH(K1)=21.8 kJ mol⁻¹, DS(K1)=125.5 J K⁻¹ mol⁻¹

C6H14NO2P HL (6465)
Piperidinemethylphosphinic acid; C5H10N.CH2.PO2H2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl NaClO4 25°C 0.10M C K1=4.91 1992LBa (50629)4700

C6H14NO2S (6142)
2-Amino-4-(S,S-dimethylsulphonium)butanoic acid; (CH3)2S(+)CH2CH2CH(NH2)CHLH;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ vlt NaClO4 25°C 0.50M C K1=10.48 B2=12.91 1986RVa (50637)4701
B3=14.43

Method: polarography.

Cu++ gl KCl 25°C 0.20M U K1=6.75 B2=12.63 1982FGa (50638)4702
K(Cu+2(H-1L))=18.0

C6H14N2 L (4351)
1,1-Di(aminomethyl)cyclobutane; C4H6(CH2.NH2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl oth/un 25°C dil U K1=9.76 B2=16.98 1972NBa (50645)4703

C6H14N2 L (6517)
1,5-Diazacyclooctane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl NaNO3 25°C 0.10M U K1=10.51 B2=17.95 1990HNa (50648)4704

C6H14N2 L CAS 7154-73-6 (3078)
2,2'-Aminoethylpyrrolidine; C4H8N.CH2.CH2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl oth/un 30°C ->0 U K1=8.77 B2=14.82 1961RFa (50651)4705

C6H14N2 L CAS 20439-47-8 (3077)
cis-1,2-Diaminocyclohexane; C6H10(NH2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl oth/un 25°C 0.10M U K1=10.61 B2=19.97 1970ABc (50662)4706
meso isomer

Cu++ gl oth/un 20°C ->0 U T H K1=10.91 B2=20.60 1958BFa (50663)4707
DH(K1)=-48.5 kJ mol⁻¹,DS=42 J K⁻¹ mol⁻¹; DH(K2)=-50.2,DS=13. 10 C: K1=11.20,

K2=9.99; 30 C: K1=10.72, K2=9.40; 40 C: 10.33, 9.10

Cu++ gl KCl 20°C 0.10M U K1=10.87 B2=20.54 1956SBa (50664)4708

C6H14N2 L CAS 21436-03-3 (2456)
trans-1,2-Diaminocyclohexane; C6H10(NH2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ sp KCl 25°C 0.10M C K1=11.07 B2=20.68 1996DPa (50678)4709
Method: ultraviolet circular dichroism.

Cu++ gl KCl 25°C 0.20M U M K1=11.82 B2=21.64 1990BMa (50679)4710
B(CuL(Ala))=18.316
B(CuL(D-Ala))=18.307

Alternative method: ESR

Cu++ gl NaCl04 25°C 0.00 C I M K1=11.20 B2=20.83 1979TIa (50680)4711

Cu++ gl oth/un 25°C 0.10M U K1=10.94 B2=20.35 1970ABc (50681)4712
DL, D and L isomers

Cu++ gl oth/un 20°C ->0 U T H K1=11.22 B2=20.95 1958BFa (50682)4713
DH(K1)=-56.9 kJ mol⁻¹, DS=21 J K⁻¹ mol⁻¹; DH(K2)=-51.5, DS=13. 10 C: K1=11.55,
K2=10.11; 30 C: 10.96, 9.54; 40 C: 10.56, 9.19

Cu++ gl KCl 20°C 0.10M U K1=11.13 B2=20.93 1956BFd (50683)4714

C6H14N2O L (2357)
1-Oxa-4,7-diazacyclononane; Cyclo(-((CH2)2.NH)2(CH2)2.O.-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.10M U K1=10.80 B2=19.60 1990CCa (50699)4715

Cu++ gl NaNO3 25°C 0.10M U K1=10.86 B2=19.54 1986TSa (50700)4716

Cu++ gl NaNO3 25°C 0.01M U K1=10.85 B2=19.49 1982HTa (50701)4717

C6H14N2O L CAS 2038-03-1 (3115)
4,2'-Aminoethylmorpholine; C4H8ON.CH2.CH2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 30°C 1.00M U K1=6.60 B2=10.56 1956HFb (50716)4718

C6H14N2O L (4388)
Glycine-N,N-diethylamide; NH2.CH2.CO.N(C2H5)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.10M U 1971YMa (50719)4719
K(Cu+HL)=6.18
K(CuHL+HL)=5.12

C6H14N2O L CAS 10466-61-2 (3116)
L-Leucine amide; H2N.CH(CH2.CH(CH3)2).CO.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl oth/un 25°C 0.01M U K1=4.67 B2=8.62 1959DLb (50721)4720

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

Cu++ gl KNO3 25°C 0.10M C H B2=14.83 2000CCc (50767)4721

B(CuHL)=18.17
B(CuH2L2)=35.18
B(CuHL2)=25.27
K(Cu+HL)=7.54

Calorimetry: DH(B2)=-44.0 kJ mol⁻¹, DS(B2)=135 J K⁻¹ mol⁻¹; DH(CuHL)=-75.8
DS=53; DH(CuH2L2)=-154, DS=156; DH(CuHL2)=-100.7, DS=146. Additional data.

Cu++ gl KNO3 25°C 0.10M C K1=8.13 1999BIa (50768)4722

Cu++ gl KNO3 25°C 0.10M C B2=15.038 1998ZYa (50769)4723

B(CuHL)=18.232
B(CuH2L2)=35.322
B(CuHL2)=25.464

Cu++ gl KNO3 25°C 0.10M M M K1=14.10 B2=19.94 1995SHc (50770)4724

K(Cu(ada)+L)=5.30
B(CuHL)=20.08

ada: N-(acetamido)-iminodiethanoic acid. K(H+L)=10.60, K(2H+L)=19.48.

Cu++ gl KNO3 25°C 0.10M C M B2=15.205 1993MOa (50771)4725

B(CuHL)=18.349
B(CuHL2)=25.647
B(CuH2L2)=35.547

Ternary complexes with ethylenediamine-N-ethanoic acid (B(CuHLA)=29.500),
and D,L-2,3-Diaminopropanoic acid (B(CuHLA)=28.204)

Cu++ gl KNO3 25°C 0.10M C M B2=14.872 1992Y0a (50772)4726

B(CuHL2)=25.348
B(CuHL)=18.239
B(CuH2L2)=35.318

HA=L-phospho-serine: B(CuHLA)=26.066, B(CuH2LA)=31.40; B(CuHL(Ser))=25.217
HB=L-phospho-tyrosine: B(CuHLB)=26.119, B(CuLB)=16.026; B(CuHL(Tyr))=25.747

Cu++ gl NaClO4 25°C 0.10M C B2=14.83 1987LMa (50773)4727
B(CuHL)=18.33
B(CuH2L2)=35.58
B(CuHL2)=26.23

Cu++ gl KNO3 35°C 0.20M C M 1987PRa (50774)4728
K(Cu+HL)=7.76

Cu++ gl NaCl 37°C 0.15M U K1=10.37 B2=14.18 1985CFb (50775)4729
B(CuHL)=17.682
B(CuHL2)=24.50
B(CuH2L2)=34.16
B(CuH-1L)=0.78

Cu++ gl KNO3 25°C 0.10M C M B2=15.01 1984DAb (50776)4730
B(CuHL)=18.20
B(CuHL2)=25.42
B(CuH2L2)=35.21
B(CuHLA)=27.64

H2A=Noradrenaline

Cu++ ISE KNO3 25°C 0.10M C M K1=7.65 B2=14.09 1984PDb (50777)4731
K(Cu(nta)+L)=5.10

Method: Cu ion selective electrode.

Cu++ gl NaClO4 37°C 0.15M C M K1=10.850 1981BKd (50778)4732
B(CuHL)=17.985
B(CuH2L)=20.640
B(CuHL2)=25.623
B(CuH2L2)=34.797
B(CuHL(Histamine))=26.5; B(CuL(Histamine))=16.908

Cu++ gl KNO3 30°C 1.00M U M K1=7.40 B2=13.70 1980SGd (50779)4733
B(CuL(malonate))=13.70
B(CuL(oxalate))=12.10

Cu++ vlt KNO3 30°C 1.00M U M K1=7.4 B2=13.7 1980SSe (50780)4734
B(CuL(oxalate))=12.1

Cu++ gl KCl 25°C 0.20M C B2=14.81 1978GFa (50781)4735
B(CuHL)=18.33
B(CuH2L2)=35.40
B(CuHL2)=25.32

Cu++ gl KNO3 25°C 0.10M U M B2=15.07 1978SYa (50782)4736
B(CuHL)=18.46
B(CuH2L2)=35.63
B(CuHL2)=25.64
B(CuH(Asp)L)=26.32

B(M(Asp)L) = 15.82

Cu++ gl KNO3 25°C 0.10M U M 1977BPa (50783)4737
B(CuHLA)=27.78
B(CuHL(His))=27.88
B(CuLA)=17.12
B(CuL(His))=17.12

HA=D-His

Cu++ gl KCl 25°C 0.20M C M 1977NGa (50784)4738
B(CuH-1LA)=4.96
B(CuH-1LB)=5.09
B(CuH-1LC)=4.72
K(CuH-1L2+A=CuH-1LA+L)=0.50

K(CuH-1L2+B=CuH-1LB+L)=0.45, K(CuH-1L2+C=CuH-1LC+L)=0.54

HA: glycylglycine; HB: glycyl-DL-alanine; HC: DL-alanyl-DL-alanine

Cu++ gl KNO3 25°C 0.10M C B2=15.05 1976BPb (50785)4739
B(CuHL)=18.29
B(CuH2L2)=35.45
B(CuHL2)=25.52

Cu++ gl NaClO4 25°C 1.00M C B2=15.646 1975NMb (50786)4740
B(CuHL)=19.045
B(CuH2L2)=36.851
B(CuHL2)=26.49

Cu++ gl KNO3 20°C 0.10M U K1=7.56 B2=14.02 1968HLA (50787)4741

Cu++ gl NaClO4 25°C 0.10M U B2=13.90 1965Nca (50788)4742

Cu++ gl oth/un 20°C 0.01M U B2=13.7 1952ALa (50789)4743

Cu++ vlt oth/un 25°C 0.10M U B2=13.6 1952Lda (50790)4744
Medium: 0.1 M KH2PO4

C6H14N2O2 HL (7229)
2-Amino-N-hydroxy-3-methylpentanamide; CH3CH2CH(CH3)CH(NH2)CONHOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KCl 25°C 0.50M C K1=10.36 B2=19.85 1993LEb (50842)4745
B(CuH-1L2)=10.29

C6H14N2O2 HL CAS 69749-17-3 (1546)
2-Amino-N-hydroxyhexanamide; CH3.(CH2)3.CH(NH2).CO.NH.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KCl 25°C 0.50M U K1=10.32 B2=19.67 1991LEb (50847)4746

B(Cu(OH)L)=10.37
B(Cu2(OH)L2)=20.63

Cu++ gl KCl 25°C 0.50M C K1=10.29 B2=19.70 1988LEa (50848)4747
B(CuH-1L2)=9.877
B(Cu2H-1L2)=20.767

C6H14N2O2 HL (5984)
Leucinehydroxamic acid; NH2.CH(CH2.CH(CH3)2).CO.NHOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KCl 25°C 0.50M C M K1=10.46 B2=19.32 1998DFe (50856)4748
B(CuH-1L2)=9.36
B(Cu2H-1L2)=20.37
B(CuLA)=17.80
B(CuH-1LA)=7.97

B(CuLB)=17.77, B(CuH-1LB)=8.16; B(CuLC)=19.08, B(CuH-1LC)=8.11;
B(CuLD)=18.35, B(CuH-1LD)=8.30. HA: val; HB:phe; HC: Pro; HD: trp.

Cu++ gl KCl 25°C 0.50M U K1=10.626 B2=19.21 1991LNb (50857)4749
B(CuH-1L2)=9.175
B(Cu2H-1L2)=20.592

Cu++ gl NaClO4 25°C 0.10M C K1=10.83 B2=19.51 1987KKb (50858)4750
B(Cu2H-1L2)=21.09
B(CuH-1L2)=9.98

C6H14N2O3 HL (7539)
(R,S)-alpha-Hydroxymethylornithine; NH2(CH2)3C(NH2)(COOH)CH2OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.10M C B2=16.29 1998CKa (50862)4751
B(CuHL)=17.38
B(CuH2L2)=34.01
B(CuHL2)=25.92
B(CuH-1L2)=5.88

B(CuH-2L2)=-5.29

C6H14N2O3 HL 5-Hydroxylysine CAS 13204-98-3 (1585)
2,6-Diamino-5-hydroxyhexanoic acid; H2N.CH2.CH(OH).CH2.CH2.CH(NH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl NaNO3 25°C 0.15M C T HM K1=9.75 1989DZa (50865)4752
B(CuHL)=17.040
B(CuHL2)=24.04
B(CuH2L2)=32.95
B(Cu2H-1L2)=14.85

Also $B(\text{Cu}_2\text{H}-2\text{L}_2)=7.80$; $B(\text{Cu}_3\text{H}-2\text{L}_2)=12.28$. Also data at 18, 37 and 47 C, and derived DH and DS values. $B(\text{CuNiH}-2\text{L}_2)=2.83$. $B(\text{Cu}_2\text{NiH}-2\text{L}_2)=10.44$.

 Cu++ gl NaCl04 25°C 0.10M U K1=7.46 B2=13.75 1965NCa (50866)4753

C6H14N2O4 HL CAS 31918-44-2 (4383)
 N,N-Bis(2-hydroxyethyl)aminoacethydroxamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Cu++	sp	NaCl04	20°C	0.10M	U		K1=10.44 B2=16.25	1971KMc (50874)	4754
								K(CuL2+OH=CuL(OH)+L)=1.35	

C6H14N2S L (5635)

1-Thia-4,7-diazacyclononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Cu++	gl	KNO3	25°C	0.10M	C H		K1=12.66 B2=22.91	1992WLb (50878)	4755
								K(2CuL+2OH=Cu2L2(OH)2)=16.43	

DH(K1)=-50.2 kJ mol⁻¹, TDS=22; DH(K2)=-108.8 kJmol⁻¹, TDS=22

Cu++	gl	NaNO3	25°C	0.10M	U		K1=12.42 B2=22.29	1983HBb (50879)	4756
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C6H14N4O2 L CAS 1071-93-8 (2563)

1,6-Hexanedioic acid dihydrazide; H2N.NH.CO.CH2.CH2.CH2.CH2.CO.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Cu++	gl	diox/w	RT	50%	C I		K1=4.252 B2= 6.25	1993BKe (50898)	4757
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B(CuHL)=6.223

B(CuHL2)=8.956

Medium: 50% v/v dioxane/H2O. Data for 10-60% v/v dioxane/H2O and DMF/H2O.

Temperature not stated.

C6H14N4O2 L (1529)

1,8-Diamino-3,6-diaza-2,7-octanedione; (H2N.CH2.CO.NH.CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Cu++	gl	KCl	25°C	0.50M	C		K1=7.68	1982BZa (50914)	4758
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B(Cu2L2)=18.84

K(Cu+HL=CuHL)=5.13

K(CuHL+HL=CuL2H2)=4.15

B(CuH-2L)=-6.37

Cu++	gl	KNO3	25°C	0.10M	U		K1=7.50	1969BMc (50915)	4759
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K(2CuL=CuH-2L2+2H)=-9.2

K(2CuH-1L=(CuH-2L)2+2H)=-18.40

K(CuH-2L+2H)=13.8

Cu++ gl KCl 23°C 0.50M U K1=8.26 1967ZFb (50916)4760
K(Cu+HL)=5.24
K(CuL+H)=5.49
K(CuH-1L+H)=6.51
K(CuH-2L+H)=8.21

Cu++ gl KCl 25°C 1.0M U K1=8.13 1953CGa (50917)4761
K(CuH-1L+H)=6.58
K(CuH-2L+H)=8.43

C6H14N4O2 L CAS 189938-82-7 (8093)
1,8-Diamino-3,6-diazaoctane-7,8-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.10M C 1996CHd (50930)4762
B(CuH-1L)=5.14
B(Cu2H-2L)=3.63
B(CuH-2L)=-4.13

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

Cu++ gl KNO3 25°C 0.10M C K1=7.641 B2=14.17 1998ZYa (50958)4763

Cu++ gl KNO3 25°C 0.10M C M K1=7.652 B2=14.128 1993MOa (50959)4764
B(CuH-1L2)=3.14

Ternary complexes with ethylenediamine-N-ethanoic acid (B(CuLA)=18.961), and
D,L-2,3-Diaminopropanoic acid (B(CuLA)=18.135)

Cu++ gl KNO3 25°C 1.00M C M K1=7.652 B2=14.128 1992Y0a (50960)4765
HA=L-phospho-serine: B(CuHLA)=21.16, B(CuLA)=15.614; B(CuL(Ser))=14.714
HB=L-phospho-tyrosine: B(CuHLB)=20.799, B(CuLB)=15.400; B(CuL(Tyr))=4.943

Cu++ sp NaNO3 25°C 0.10M U M K1=7.44 B2=13.83 1989APb (50961)4766
B(CuL(canavanine))=14.30

Cu++ gl KNO3 35°C 0.20M C M 1987PRa (50962)4767
K(Cu+HL)=7.69

Cu++ gl KNO3 25°C 0.10M C M 1984DAb (50963)4768
B(CuLA)=16.88

H2A=Noradrenaline

Cu++ gl KNO3 25°C 0.10M C M 1983ADa (50964)4769
B(CuHL)=18.10
B(CuHL(DOPA))=24.28

Cu++ gl NaClO4 37°C 0.15M U K1=7.17 B2=15.25 1982NSa (50965)4770
B(CuH-1L)=3.99

Cu++ gl KNO3 25°C 0.10M U M 1978SYa (50966)4771
B(CuHL)=19.55
B(CuH2L2)=37.91
B(CuHAL)=27.43

H2A=aspartic acid

Cu++ gl KNO3 25°C 0.10M U M 1977BPa (50967)4772
B(CuHLA)=29.12
B(CuHL(His))=29.25

HA=D-His

Cu++ gl KNO3 25°C 0.10M C 1976BPb (50968)4773
B(CuHL)=19.63
B(CuH2L2)=38.15

Cu++ sp NaClO4 25°C 0.15M U K1=7.49 B2=13.59 1975PTd (50969)4774

Cu++ gl KNO3 25°C 0.10M U K1=7.93 B2=14.57 1970CMc (50970)4775

Cu++ gl KNO3 25°C 0.10M U 1970CMc (50971)4776
K(CuH-1L+H)=7.5
K(Cu+H-1L)=11.9
K(CuH-2L2+H)=11

Cu++ gl oth/un 25°C ? U T K1=7.34 B2=13.76 1960PEd (50972)4777
17 C: K1=7.53, K2=6.54; 30 C: 7.23, 6.32; 35 C: 7.12, 6.23; 40 C: 7.02, 6.14

Cu++ gl oth/un 20°C 0.01M U B2=13.90 1952ALa (50973)4778

Cu++ vlt oth/un 25°C 0.06M U B2=13.74 1952Lda (50974)4779
Medium: 0.06 M KH2PO4

C6H14N4O2 L (3704)
N,N'-Bis(2-aminoethyl)oxamide; H2N.CH2.CH2.NH.CO.CO.NH.CH2.CH2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.10M C K1=9.17 1996CHE (51023)4780
B(Cu2H-2L)=1.451
B(Cu2H-3L)=-6.859
B(Cu2H-4L)=-16.45
B(Cu2H-2L2)=7.612

B(CuH-2L)=-5.860

Cu++ gl KNO3 22°C 0.10M U K1=9.41 1968GFb (51024)4781
K(CuH-1L+H)=7.51

K(CuH-2L+H)=8.10
 K(CuH-2L+Cu)=7.37

 C6H14N4O4S2 H2L (6642)
 Cystine dihydroxamic acid; HONH.CO.CH(NH2).CH2.SS.CH2.CH(NH2).CO.HNOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	C			B(CuHL)=22.46 B(Cu2L2)=39.87	1992FKa	(51029)4782

 C6H14O2Si HL (134)
 3-(Trimethylsilyl)propanoic acid; (CH3)3Si.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaNO3	35°C	0.10M	U	M		K1=1.80 B(Cu(phen)L)=10.8 B(Cu(bpy)L)=9.57	1979MIa	(51040)4783

 C6H14O6 L D-Dulcitol CAS 608-66-2 (3663)
 D-Galactitol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	ISE	KNO3	25°C	0.70M	U			K1=-0.08	1986HAe	(51057)4784

 C6H14O6 L D-Mannitol CAS 69-65-8 (3664)
 D-Mannitol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	ISE	KNO3	25°C	0.70M	U			K1=-0.15	1986HAe	(51065)4785

 C6H14O6 L Glucitol CAS 50-70-4 (2878)
 D-Sorbitol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	ISE	KNO3	25°C	0.70M	U			K1=-0.11	1986HAe	(51092)4786

 C6H14S L Isopropyl sulfi CAS 625-80-9 (5674)
 2,2'-Thiodipropene, diisopropyl sulfide; (CH3)2CH-S-CH(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	ISE	non-aq	25°C	100%	U			K1=0.84 B2=1.51 B3=1.73 B4=2.03	1986MMb	(51133)4787

Medium: acetone, Bu4NC104

C6H15N L Triethylamine CAS 121-44-8 (1340)
N,N,N-Triethylamine; (C2H5)3N

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ vlt NaClO4 20°C 0.70M C K1=7 1991CSa (51170)4788
Method: differential pulse polarography.

C6H15NO L CAS 100-37-8 (3117)
N,N-Diethyl-2-aminoethanol; (CH3.CH2)2N.CH2.CH2.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ vlt KNO3 25°C 1.0M C 1983AAb (51189)4789
K(Cu+2OH+L)=13.9
K(Cu+2OH+2L)=15.8

Method: polarography. Medium pH >11

Cu++ vlt KNO3 25°C ? C B2=8.21 1980AAb (51190)4790
B3eff=13.90

Cu++ oth oth/un ? ? U 1968HGa (51191)4791
B(CuL2(OH)2)=19.5

Cu++ gl oth/un 25°C 0.10M U K1=4.9 B2=9.00 1965DOb (51192)4792
K3=3.2
K4=2.4

C6H15NO2 L CAS 110-97-4 (944)
Di-isopropanolamine; CH3.CH(OH).CH2.NH.CH2.CH(OH).CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ vlt KNO3 25°C 0.50M U 1971HSa (51204)4793
B(CuL(OH)3)=20.6
B(CuL2(OH)2)=20.8

C6H15NO2 L CAS 139-87-7 (3707)
N-Ethyl-2,2'-iminodiethanol; CH3.CH2.N(CH2.CH2.OH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ vlt KNO3 30°C 0.50M U 1967FHa (51208)4794
B(CuL(OH)2)=17.4
B(CuL2(OH)2)=19.0

C6H15NO3 Triethanolamine CAS 102-71-6 (447)
Tris-(2-hydroxyethyl)amine; L

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	oth/un	25°C	1.5M	U	M	K1=4.14	1998SPa (51234)	4795
Medium: Na2SO4; the same data measured by sp.:K1=3.87									
Cu++	gl	oth/un	25°C	1.5M	U		K1=4.14	1998SPb (51235)	4796
The same measured spectrophotometrically: 3.87 Medium: Na2SO4									
Cu++	nmr	KNO3	25°C	1.00M	U		K1=4.3 B(CuH-1L)=-1.9 B(CuH-2L)=-9.7 B(Cu2H-2L2)=-1.1 B(Cu2H-3L2)=-8.2	1990CIId (51236)	4797
B(Cu2H-4L2)=-16.6									
Cu++	sp	KNO3	25°C	1.00M	U		K1=4.37 B(CuH-1L)=-1.73 B(CuH-2L)=-9.45 B(Cu2H-2L2)=-1.42 B(Cu2H-3L2)=-9.02	1989CGa (51237)	4798
Also B(Cu2H-4L2)=-17.02; B(Cu2H-5L2)=-28.50; B(CuH-2L2)=-8.57.									
Cu++	gl	KNO3	25°C	1.0M	U	M	K1=4.3 B(CuH-1L)=-1.9 B(CuH-2L)=-9.7 B(Cu2H-2L2)=-1.1 B(Cu2H-3L2)=-8.2	1986CTa (51238)	4799
B(Cu2H-4L2)=-16.6. B(CuAL)=15.4, B(CuAH-1L)=8.4. H2A is salicylic acid									
Cu++	nmr	oth/un	25°C	1.00M	U		K1=4.3 B(CuH-1L)=-1.9 B(CuH-2L)=-9.7 B(Cu2H-2L2)=-1.1 B(Cu2H-3L2)=-8.2	1985TCa (51239)	4800
Medium: D2O. B(Cu2H-4L2)=-16.6									
Cu++	gl	NaNO3	25°C	0.10M	U		K1=4.07 K(CuL+OH)=8.37 K(CuLOH+L)=1.99	1984HNa (51240)	4801
Cu++	gl	oth/un	25°C	0.50M	C		K1=4.22 B(CuH-1L)=-6.42 K(2CuL=Cu2L2(OH)2)=3.15	1981BAa (51241)	4802
Medium: 0.5 M (HL,K)NO3									
Cu++	vlt	KNO3	30°C	2.00M	U	M	B(CuL2(OH))=14.40	1971SSe (51242)	4803
Data also obtained by e.m.f. with redox electrode									

Cu++	gl	oth/un	20°C	dil	U		K1=4.03		1968DPa (51243)4804
							K(CuH-1L+H)=6.40		
							K(CuH-2L+H)=8.43		
							K(CuH-3L+H)=11.4		
Cu++	vlt	KNO3	30°C	0.50M	U				1967FHa (51244)4805
							B(CuL(OH))=11.9		
							B(CuL(OH)2)=18.3		
							B(CuL(OH)3)=20.7		
							B(CuL2(OH)2)=18.6		
Cu++	gl	oth/un	25°C	0.43M	U		K1=4.44	B2=7.58	1966SKe (51245)4806
							K3=2.14		
Medium: CH2OHCH2.NH3NO3									
Cu++	gl	oth/un	25°C	0.10M	U		K1=3.9	B2=6.00	1965DOb (51246)4807
Cu++	ISE	NaCl04	?	2.0M	U		K1=4.79		1963CAc (51247)4808
							B(Cu2L2(OH)2)=27.9		
							B(Cu2L2(OH)4)=40.3		
							B(Cu4L4(OH)5)=63.4		
							B(Cu2L(OH)2)=20.4		
Cu++	vlt	KNO3	30°C	0.50M	U				1962FHa (51248)4809
							B(CuL(OH)2)=18.4		
							B(CuL(OH)3)=20.7		
Cu++	gl	oth/un	?	var	U		K1=4.7		1957GIa (51249)4810
Cu++	sp	oth/un	25°C	0.03M	U		K1=4.30		1953BHa (51250)4811
Cu++	gl	KNO3	25°C	0.50M	U		K1=4.23		1947BRa (51251)4812

C6H15NO6P2 H4L (6891)									
Piperidine-N-Methylenedi(phosphonic acid); C5H10N.CH(P03H2)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference ExptNo
Cu++	gl	KCl	25°C	0.10M	U			K1=12.21	1978GMf (51318)4813
								K(Cu+HL)=9.22	

C6H15NO6S HL TES CAS 7365-44-8 (2787)									
N-Tris(hydroxymethyl)methyl-2-aminoethanesulfonic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference ExptNo
Cu++	gl	KNO3	20°C	0.05M	U			K1=3.74	1986VGa (51332)4814
								B(CuH-1L)=1.09	

Cu++ gl KNO3 20°C 0.05M U K1=3.74 1986VGb (51333)4815
B(CuH-1L)=2.65

C6H15NS HL CAS 1942-52-5 (2595)

2-(Diethylamino)ethanethiol; (CH3.CH2)2N.CH2.CH2.SH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl NaClO4 20°C 0.10M U TI K1=15.90 1986NDb (51348)4816

C6H15N3 L CAS 26150-46-9 (149)

1,3,5-cis,cis-Triaminocyclohexane; C6H9.(NH2)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl NaClO4 25°C 0.10M C H K1=11.1 1998IHa (51359)4817

K(Cu+HL)=6.7

*K(CuL)=-8.2

DH(K1)=-40.9 kJ mol⁻¹, DS=69.3 J mol⁻¹ K-1.

Cu++ gl mixed 25°C 0.20M C I K1=6.38 1982SKa (51360)4818

B(Cu3L2)=22.56

K(Cu+HL)=4.26

K(Cu+H2L)=2.98

Medium: 0.2 M Na2SO4, 1% CH3CN

Cu++ cal NaClO4 25°C 0.10M U H 1980FMa (51361)4819

DH1=-40.2, DS1=69.9, DH(K2)=-4.6, DS(K2)=75.3, DH(CuL+OH=CuLOH)=-32.2 kJ mol⁻¹, DS=4 J K-1 mol⁻¹

Cu++ gl KCl 25°C 0.10M U K1=10.55 1971CWa (51362)4820

K(CuL+OH)=6.08

Cu++ gl KCl 20°C 0.10M U 1962BSb (51363)4821

K(Cu+HL)=6.7

K(CuL+H)=7.0

K(CuLOH+H)=8.7

K(CuL(OH)2+H)=11.3

C6H15N3 L CAS 4730-54-5 (26)

1,4,7-Triazacyclononane; cyclo(-NH.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ kin NaClO4 50°C 0.10M C 1999HMa (51381)4822

K(2Cu(H2O)2L=dimer)=4.11

Reaction is 2Cu(H2O)L=CuL(OH)2CuL+2H, pH=9.2.

Cu++ gl NaClO4 25°C 0.10M C K1=15.6 1998IHa (51382)4823

*K(CuL)=-7.7

Cu++ gl KNO3 20°C 0.10M U T H K1=15.55 1997BAa (51383)4824
At 32 C, K1=14.60. DH(K1)=-128.3 kJ mol-1, DS(K1)=421 J K-1 mol-1.

Cu++ gl KNO3 25°C 0.50M M K1=17.50 B2=31.51 1979Rka (51384)4825
K(2CuL+2OH=Cu2L2(OH)2)=15.04

Cu++ cal KNO3 25°C 0.10M U H 1977Fza (51385)4826
DH(K1)=-59.4 kJ mol-1; DS=97.8 J K-1 mol-1

Cu++ vlt KCl 25°C 0.20M U H K1=16.2 1977KKb (51386)4827
DH(K1)=-54.3 kJ mol-1, DS=127.4 J K-1 mol-1

Cu++ gl KNO3 25°C 0.10M M K1=15.5 1976YZa (51387)4828

Cu++ gl KNO3 25°C 0.10M U K1=15.6 1975DDa (51388)4829

Cu++ gl KNO3 25°C 0.10M U K1=15.1 B2=27.20 1973AHc (51389)4830
K(Cu(OH)L+H)=7.9

C6H15N3O2 HL CAS 52760-35-7 (6670)
Lysine hydroxamic acid; H2N.(CH2)4.CH(NH2)CO.NHOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KCl 25°C 0.20M C B2=20.22 19960Ga (51417)4831
B(CuHL)=20.72
B(CuH2L2)=40.06
B(CuHL2)=30.62
B(CuH-1L2)=9.30
B(Cu2HL2)=40.95

Cu++ gl KCl 25°C 0.50M C B(CuHL)=20.26 1993LEa (51418)4832
B(CuH2L2)=40.56
B(CuHL2)=33.33
B(Cu2HL2)=41.53

C6H15N3O2 HL DTMA CAS 55682-20-7 (2334)
N,N-Bis(2-aminoethyl)glycine; (H2N.CH2.CH2)2N.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.10M C M K(CuL+OH)=4.25 1981WNb (51431)4833

Cu++ gl KNO3 25°C 0.10M C K1=18.07 1975MMe (51432)4834
K(CuL+H)=2.90
K(CuLOH+H)=9.22

C6H15N3O3 L (6613)
1,3,5-Triamino-1,3,5-trideoxy-cis-inositol,5-Amino-5-deoxy-streptamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C			K1=12.09 B2=18.79 B(CuHL2)=24.60 K(Cu2L2=Cu2L2(OH)2+2H)=12.0	1992HGa	(51442)4835

C6H15N5 L CAS 40953-58-8 (3079)
Diethylbiguanide; CH3.CH2.NH.C(:NH).NH.C(:NH).NH.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	oth/un	32°C	?	U			K1=6.05 B2=12.72	1960Rab	(51459)4836
Cu++	gl	oth/un	32°C	0.05M	U			K1=7.98 B2=14.31	1956SRb	(51460)4837

C6H15N5O L (3118)
Methoxypropylbiguanide; CH3O.NH.C(:NH).NH.C(:NH).NH.CH2.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	sp	KCl	30°C	0.20M	U			K1=9.52 B2=16.93	1960SRa	(51462)4838

C6H15N5O2 L CAS 5699-67-2 (6357)
2-Amino-5-((Aminoiminomethyl)amino)-N-hydroxypentanamide, Arginine hydroxamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.20M	C			K1=10.26 B2=18.98 B(CuH-1L2)=9.01 B(Cu2H-1L2)=19.82	19960Ga	(51466)4839
Cu++	gl	KCl	25°C	0.50M	C			K1=10.15 B2=18.87 B(CuH-1L2)=9.16 B(Cu2H-1L2)=19.88	1991LNa	(51467)4840

C6H15N5O2 L (2713)
3,3'-Iminobis(propanamidoxime); HN(CH2.CH2.C(:NOH)NH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaCl	25°C	1.00M	M			K1=10.92 B(Cu2H-2L2)=12.02	19890Ka	(51474)4841

C6H15ON3 HL (2937)
N,N-Diethyl-2-aminoacetamidoxime; (C2H5)2N.CH2.C(:NOH)NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Cu++ gl NaClO4 25°C 0.10M U K1=10.45 B2=12.68 1981ATa (51601)4848

Cu++ cal NaClO4 25°C 0.50M U H 1975BFa (51602)4849
DH1=-34.3; DH(K2)=-30.5; DH(CuLOH)=-22.6 kJ mol⁻¹. DS1=56.4; DS(K2)=8;
DS(CuLOH)=29

Cu++ gl oth/un 25°C 0.0 U I M 1964NMa (51603)4850
K(2CuOHL=Cu₂(OH)₂L₂)=3.58
B(Cu(OH)L)=15.01

In I M NaClO₄: K(CuOHL+H)=7.77+1.018SQRTI/(1+SQRTI). Ternary complexes with
en, 1,2-pn and 1,3-pn. K(Cu₂(OH)₂L₂+2H=2CuL)=11.96+1.018SQRTI/(1+SQRTI)

Cu++ gl NaClO4 25°C var U 1963NMb (51604)4851
K1=8.79+0.580I-0.064I^(3/2)-0.024I⁽²⁾. When I=0: K2=5.57

Cu++ cal KNO3 0°C 0.50M U H K1=9.30 B2=15.62 1954BMa (51605)4852
DH(B2)=-73.2 kJ mol⁻¹, DS=87.8 J K⁻¹ mol⁻¹. At 0 C: K1=10.84, K2=7.85

C6H16N2 L Tetrameen CAS 110-18-9 (124)
N,N,N',N'-Tetramethyl-1,2-diaminoethane; (CH₃)₂N.CH₂.CH₂.N(CH₃)₂

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl NaClO4 25°C 0.20M M K1=7.324 1989PBa (51624)4853
B(CuLA)=16.10

H2A=pyridine-2,6-dicarboxylic acid

Cu++ gl KNO3 25°C 0.10M C M K1=7.622 19840Ya (51625)4854
B(CuH-1L)=1.489
B(CuL(Ala))=15.349
B(CuL(Val))=15.052
B(CuL(Phe))=15.119

B(CuL(Trp))=15.499; B(CuL(Tyr))=15.676; B(CuHL(Tyr))=25.116; B(CuLA)=14.848;
B(CuHLB)=25.988. HA=0-Me-tyrosine, H2B=5-hydroxytryptophan.

Cu++ gl KCl 25°C 0.20M C M K1=7.45 1976GSd (51626)4855
B(CuL(Gly))=15.22
B(CuL(en))=16.47
B(Cu(OH)L)=0.47
B(Cu₂(OH)₂L₂)=2.52

Cu++ gl KCl 25°C 0.20M C K1=7.45 1976SGa (51627)4856
B(CuH-1L)=0.47
B(Cu₂H-2L₂)=2.52

Cu++ gl KCl 25°C 0.20M C M 1976SGa (51628)4857
B(Cu(gly)L)=15.22
K(CuL+gly)=7.77
K(Cu(gly)+L)=7.15

Cu++ gl KCl 25°C 0.20M C M 1976SGa (51629)4858
 B(Cu(en)L)=16.47
 K(CuL+en)=9.02
 K(Cu(en)+L)=5.90

Cu++ gl KCl 25°C 0.20M C M 1976SGa (51630)4859
 B(Cu(pn)L)=14.76
 K(CuL+pn)=7.31
 K(Cu(pn)+L)=5.11

pn is 1,3-diaminopropane.

Cu++ gl KCl 25°C 0.10M C K1=7.376 1974GVa (51631)4860
 B(CuLOH)=-0.64
 B(Cu2L(OH)2)=-3.65
 B(Cu2L2(OH)2)=2.58
 B(Cu3L2(OH)4)=-8.14

B(CuL(OH)2)=-10.9

Cu++ gl KNO3 25°C 0.50M U K1=7.38 1972APa (51632)4861
 K(Cu(OH)L+H=CuL)=0.66
 K(Cu(OH)2L+2H=CuL)=10.91
 K(2Cu+2L=Cu2(OH)2L2+2H)=2.59
 K(Cu3(OH)2L2+4H=3Cu+2L)=8.15

K(Cu2(OH)2L+2H=2Cu+L)=3.65

Cu++ gl KNO3 25°C 0.10M U M K1=7.30 B2=11.87 1969Cmd (51633)4862
 B(CuLA)=21.00
 B(CuLB)=19.62
 B(CuLC)=19.29
 B(CuLD)=18.47

H4A=Titon; H4B=chromotropic acid; H2C=pyrocatechol; H2D=Sulfoxine;
 B(CuLE)=18.03; H2E=salicylic acid; B(CuLF)=15.82, H3F=5-sulphosalicylic acid

Cu++ gl oth/un 25°C 0.0 U I K1=7.19 1967NKd (51634)4863
 In I M NaClO4: K(Cu+H2L=CuL+2H)=-7.541+1.018SQRTI/(1+0.751SQRTI)-0.316I

Cu++ gl KNO3 25°C 0.10M U T H K1=7.20 1959GMa (51635)4864
 K(Cu(OH)L+H)=8.00
 K(Cu(OH)L)2+2H=2CuL)=12.13
 K(2Cu(OH)L=Cu2(OH)2L2)=3.9

DH(CuOHL+H)=-29 kJ mol⁻¹, DS=54, K=8.34(0.3 C), 7.64(42.5 C); DH((CuOHL)2+2H=2CuL)=-69.5, DS=0, K=13.26, 11.48; DH(2CuOHL=Cu2(OH)2L2)=3, DS=105, K=3.4, 3.8

Cu++ gl KNO3 25°C 0.50M U T K1=11.63 B2=21.87 1954BCa (51636)4865
 0 C: K1=12.22, K2=10.88

 C6H16N2 L CAS 100-36-7 (3081)
 N,N-Diethyl-1,2-diaminoethane; H2N.CH2.CH2.N(CH2.CH3)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ cal NaClO4 25°C 0.50M U H 1975BFa (51653)4866
DH1=-29.49; DH(K2)=-25.94; DH(CuLOH)=-25.9 kJ mol⁻¹. DS1=61;DS(K2)=21;
DS(CuLOH)=29

Cu++ sp oth/un 25°C 0.10M U 1973Y0a (51654)4867
K(Cu+CuL2=2CuL)=1.99 pH 5.9

Cu++ nmr alc/w var 50% U H 1973Y0a (51655)4868
K(Cu+CuL2=2CuL)=2.86
Method: esr. pH=5.9. DH=-9.4 kJ mol⁻¹, DS=5.0 J K⁻¹ mol⁻¹

Cu++ gl oth/un 25°C 0.0 U 1964NMb (51656)4869
K(2CuOHL=Cu2(OH)2L2)=3.18
B(Cu(OH)L)=14.74
In I M NaClO4: K(CuOHL+H)=7.30+1.018SQRTI/(1+SQRTI)
K(Cu2(OH)2L2+2H=2CuL)=11.42+1.018SQRTI/(1+SQRTI)

Cu++ gl NaClO4 25°C var U I 1963NMc (51657)4870
K1=8.05+0.576I-0.117I^(3/2)+0.021I⁽²⁾
K2=5.47+0.537I+0.192I^(3/2)-0.129I⁽²⁾

Cu++ gl KCl 25°C 0.10M U K1=8.17 B2=13.72 1954IGa (51658)4871

C6H16N2 L CAS 19522-69-1 (3080)
N-Butylethylenediamine; CH3.CH2.CH2.CH2.NH.CH2.CH2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 0°C 0.50M U T H K1=10.47 B2=19.29 1952BMa (51663)4872
DH(K1)=-33.5 kJ mol⁻¹,DS=80 J K⁻¹ mol⁻¹; DH(K2)=-34.3,DS=50.
25 C: K1=9.94, K2=8.27

Cu++ gl KNO3 13°C 0.50M U H 1952BMb (51664)4873
0-25 C. At 0 C: DH(K1)=-33.4 kJ mol⁻¹, DS=79.4 J K⁻¹ mol⁻¹; DH(K2)=-34.3,
DS=50.2

C6H16N2OS L (3128)
3-Oxa-6-thiaoctane-1,8-diamine; H2N.CH2.CH2.O.CH2.CH2.S.CH2.CH2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl none 20°C 0.0 U T H K1=9.18 1959LBb (51668)4874
K1=9.54(10 C), 8.86(30 C), 8.57(40 C). DH(K1)=-54.8 kJ mol⁻¹, DS=-13

C6H16N2O2 L CAS 3197-06-6 (7963)
2-Amino-N,N-bis(2-hydroxyethyl)ethylamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl NaCl 25°C 0.16M U K1=10.09 2001SRa (51672)4875
 K(Cu+HL)<2
 *K(CuL)=-6.91
 *K(CuH-1L)=-9.59

C6H16N2O2 L CAS 93798-65-3 (3119)
 3,6-Diaza-1,8-dihydroxyoctane; HO.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2.OH

 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.10M U K1=9.47 1998XKb (51679)4876
 B(CuH-1L)=2.19
 B(CuH-2L)=-7.15

 Cu++ vlt KNO3 25°C 0.50M U B2=15.4 1972HJa (51680)4877
 K(CuL2+OH)=4.0
 B(CuL(OH)2)=21.2

 Cu++ gl oth/un 25°C 0.50M U K1=9.77 B2=15.61 1960HDa (51681)4878

 Cu++ gl oth/un 25°C 0.10M U T H K1=9.68 1959GMa (51682)4879
 K(CuLOH+H)=7.15
 K(Cu2L2(OH)2+2H=2CuL)=12.9
 K(2CuLOH=Cu2L2(OH)2)=1.4

DH(CuLOH+H)=-30 kJ mol⁻¹, DS=38; K=7.64(0 C), 6.88(43 C). DH(Cu2L2(OH)2+2H=2CuL)=-54, DS=63; K=13.02(0 C), 12.0(43 C). DH(2CuL(OH)=Cu2L2(OH)2)=-4, DS=13

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

Cu++ gl oth/un 20°C ->0 U T H K1=7.97 1959LBb (51693)4880
 DH(K1)=-33 kJ mol⁻¹, DS=38 J K⁻¹ mol⁻¹. K1=8.13(10 C), 7.82(30 C), 7.53(40 C)

C6H16N2O4P2 H2L (6466)
 Piperazine-1,4-diylbis(methylene)bis(phosphinic acid); H2O2P.CH2.C4H8N2.CH2.PO2H2

 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl NaClO4 25°C 0.10M C K1=3.18 1992Lba (51704)4881
 B(CuH2L2)=17.79

C6H16N2S L CAS 82971-05-9 (1867)
 1,4-Diaza-7-thianonane; H2N.CH2.CH2.NH.CH2.CH2.S.CH2.CH3

 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.50M U H K1=11.596 B2=17.90 1979HGa (51712)4882
 DH1=-59.7 kJ mol⁻¹ DS1=21.7 J K⁻¹ mol⁻¹ DH(K2)=-43.3 kJ mol⁻¹

DS(K2)=-24 J K-1 mol-1

C6H16N2S L (1869)
1,5-Diaza-8-thianonane; H2N.CH2.CH2.CH2.NH.CH2.CH2.S.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.50M U H K1=11.009 1979HGa (51715)4883
K(CuL+OH)=5.147

DH1=-55.1 kJ mol-1 DS1=26 J K-1 mol-1 DH(K2)=-12.1 kJ mol-1

DS(K2)=57J K-1 mol-1

C6H16N2S L (1873)
1,7-Diamino-3-thiaheptane; H2N.CH2.CH2.S.CH2.CH2.CH2.CH2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.50M U K1=9.490 1979HGb (51718)4884
K(CuL+H)=5.99

C6H16N2S L CAS 13643-20-4 (1856)
1,7-Diamino-4-thiaheptane; H2N.CH2.CH2.CH2.S.CH2.CH2.CH2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.50M U K1=9.792 1979HGb (51722)4885

C6H16N2S L (1297)
2-Aza-2'-methyl-5-thia-7-amino-heptane; CH3.N(CH3).(CH2)2.S.(CH2)2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ cal KNO3 25°C 0.50M C H K1=7.24 1983HHc (51727)4886
K(Cu+HL)=3.70

DH(K1)=-28.8 kJ mol-1. DH(Cu+HL)=-19 kJ mol-1.

Cu++ gl KNO3 25°C 0.50M U K1=7.24 1981HGa (51728)4887
K(Cu+HL)=3.70

C6H16N2S L (1298)
2-Aza-5-thia-8-amino-octane; CH3.NH.(CH2)2.S.(CH2)3.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.50M U K1=9.601 1981HGa (51733)4888
K(Cu+HL)=4.46

C6H16N2S L (6464)
5-Thia-2,8-diazanonane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C	H	K1=8.12	1992WLB (51736)	4889

DH=-34.3 kJ mol⁻¹; TDS=12.0 kJmol⁻¹

C6H16N2S2	L	(3120)
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3,6-Dithiaoctane-1,8-diamine; H2N.CH2.CH2.S.CH2.CH2.S.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	NaClO4	25°C	0.10M	U		K1=10.70 B(CuHL)=15.11	1977ASg (51747)	4890

Cu++	gl	none	20°C	0.0	U	T H	K1=10.80	1959MBA (51748)	4891
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K1=11.16(10 C), 10.43(30 C), 10.01(40 C). DH(K1)=-65 kJ mol⁻¹, DS=-15

Cu++	gl	none	30°C	0.0	U		K1=10.44	1954GFa (51749)	4892
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Cu++	gl	KNO3	30°C	1.0M	U		K1=11.32	1954GFa (51750)	4893
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C6H16N10	L	(4261)
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Ethylenebisbiguanide; (H2N.C(:NH).NH.C(:NH).NH.CH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	sp	KCl	30°C	0.25M	U		B2=21.85	1959RRb (51764)	4894

Cu++	gl	oth/un	32°C	0.05M	U		B2=21.66	1956SRb (51765)	4895
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C6H16O3SSi	HL	CAS 2039-96-5 (133)
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3-(Trimethylsilyl)propane sulfonic acid; (CH3)3Si.CH2.CH2.CH2.HSO3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	nmr	NaNO3	35°C	0.10M	U	I M	K(Cu(phen)+L)=0.8	1979MIA (51778)	4896

C6H16O6P2	H4L	CAS 4721-22-6 (3708)
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Hexane-1,6-diphosphonic acid; H2O3P(CH2)6PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cu++	gl	KCl	25°C	0.10M	U		K(Cu+HL)=6.05 B(Cu2L)=11.09	1967KLa (51785)	4897

C6H17NO6P2		CAS 5995-28-8 (1339)
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N-t-Butyliminobis(methylenephosphonic) acid; (CH3)3CN(CH2PO3H2)2 H4L

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K(CuHL+HL)=7.16

K(CuL+OH)=4.42

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

Cu++ gl KNO3 20°C 0.10M C M K1=13.71 B2=18.48 2000GLa (51864)4907
B(CuHL)=18.87
B(CuH-1L)=3.14
B(CuAH2L)=29.96
B(CuBH2L)=28.40

B(CuBH4L)=39.71. H2A is adenosine 5'-monophosphoric acid, H2B is cytidine 5'-monophosphoric acid.

Cu++ gl KNO3 20°C 0.10M C M K1=13.71 B2=18.48 1997Lbc (51865)4908
B(CuHL)=18.87
B(CuH-1L)=3.14
B(Cu(en)L)=22.71
B(CuH(en)L)=30.34

B(CuH-1(en)L)=2.51. B(CuHAL)=27.54, B(CuH2AL)=34.91. A: 2,3-diaminopropanoic acid. B(CuHBL)=27.94, B(CuH2BL)=36.59; B: 1,3-diaminopropane.

Cu++ gl NaClO4 20°C 0.10M C M K1=13.71 B2=18.48 1996Lga (51866)4909
B(CuHL)=18.87
B(CuH-1L)=3.14
B(CuAL)=16.37
B(CuH-2AL)=-3.96

HA=adenosine

Cu++ gl NaClO4 25°C 0.20M U M 1996UBa (51867)4910
B(Cu(catecholate)L)=25.26
B(Cu(oxalate)L)=17.08
B(Cu(malonate)L)=17.48
B(Cu(gly)L)=20.05

B(Cu(beta-Ala)L)=20.05, B(Cu(en)L)=21.05, B(Cu(1,3-pn)L)=21.75, B(Cu(2-aminophenol)L)=20.00, B(Cu(o-phenylenediamine)L)=15.24.

Cu++ gl NaClO4 20°C 0.10M U K1=13.71 B2=18.48 1991Wba (51868)4911
B(CuHL)=18.87
B(CuH-1L)=3.14

Cu++ gl diox/w 30°C 50% U M K1=14.68 1987PCb (51869)4912
K(CuA+L)=12.16
K(CuB+L)=12.02
K(Cu(bpy)+L)=10.67
K(Cu(phen)+L)=10.71

K(Cu(dipyridylamine)+L)=10.76; K(Cu(2-(2'-pyridyl)imidazoline)+L)= 9.87
A=5-nitrophenanthroline, B=2-(2'-pyridyl)benzimidazole

Cu++ gl NaCl 25°C 0.10M C K1=14.09 1975KHa (51870)4913
K(CuL+OH)=4.19

Cu++ gl KNO3 40°C 1.00M C T H K1=13.85 1974DFa (51871)4914
K(CuL+OH)=4.11

DH(K1)=-16.2, DH(CuLOH)=-2.5 kJ mol⁻¹ (40 C). At 25 C: K1=14.45,
K(CuL+OH)=4.21

Cu++ gl KNO3 25°C 0.10M U K1=14.3 B2=17.90 1973AHc (51872)4915

Cu++ cal KCl 25°C 0.10M U H 1966PNa (51873)4916
DH(K1)=-67.3 kJ mol⁻¹, DS=46.0 J K⁻¹ mol⁻¹; DH(CuL+OH)=-9.6, DS=46

Cu++ gl KCl 25°C 0.10M U K1=14.20 1966VAa (51874)4917
K(CuL+OH)=4.1

Cu++ gl KNO3 30°C 1.0M U T H K1=14.25 1956HFb (51875)4918
DH(K1)=-67 kJ mol⁻¹, DS=50 J K⁻¹ mol⁻¹. K1=15.75(0 C), 13.66(50 C)

C6H17N3 L CAS 24229-52-6 (4355)
4-Methyl-1,4,7-triazaoctane; H2N.CH2.CH2.N(CH3).CH2.CH2.NH.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.13M U K1=15.11 1971AAa (51907)4919
K(CuL+OH)=4.79

Cu++ gl KNO3 25°C 0.11M U M 1971AAa (51908)4920

K(CuL+Gly)=4.68

K(CuL+Val)=4.22

K(CuL+Ser)=3.79

K(CuL+b-Ala)=3.29

C6H17N3 L CAS 38977-99-0 (1067)
7-Methyl-1,4,7-Azaoctane; H2N.CH2.CH2.NH.CH2.CH2.N(CH3).CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl KNO3 25°C 0.13M U K1=14.33 1971AAa (51912)4921
K(CuL+OH)=5.32

Cu++ gl KNO3 25°C 0.11M U M 1971AAa (51913)4922

K(CuL+Gly)=4.38

K(CuL+Val)=3.96

K(CuL+Ser)=3.10

K(CuL+b-Ala)=2.89

Cu++ gl KNO3 25°C 0.13M U K1=14.33 1971AAa (51914)4923
K(CuL+OH)=5.32

Cu++ gl KNO3 25°C 0.10M C K1=19.5 2001DSa (51936)4930
 K(CuL+H)=4.45
 K(CuHL+H)=3.7
 K(CuL+OH)=2.0

 Cu++ gl oth/un 25°C 0.10M U K1=19.64 1976MDa (51937)4931
 K(Cu+HL)=12.99
 K(Cu+H2L)=8.73

 C6H18N2O6P2 H4L (7487)
 N,N-Dimethyldiaminoethane-N',N'-dimethyldiphosphonic acid;
 (CH3)2N.CH2CH2.N(CH2PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C			K1=17.8 K(CuL+H)=5.64 K(CuL+OH)=3.0 K(CuHL+H)=3.7	2001DSa (51957)	4932

 Cu++ gl KNO3 25°C 0.10M C K1=17.8 2001DSa (51958)4933
 K(CuL+H)=5.64
 K(CuHL+H)=3.7
 K(CuL+OH)=3.0

 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
Cu++	cal	non-aq	25°C	100%	U	HM		K(Cu(hfac)2+L)=4.00	1976MDb (51973)	4934

Medium: CCl4. Metal: Bis(hexafluoroacetylacetonato)copper(II), (Cu(hfac)2).
 DH=-42.3 kJ mol⁻¹.

 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
Cu++	gl	R4N.X	25°C	0.10M	C			K1=20.24 K(CuL+H)=3.55 K(Cu(OH)L+H)=9.2	1997DQa (52017)	4935

Medium: Me4NNO3

 Cu++ gl NaClO4 25°C 0.15M U M K1=20.1 1995GCa (52018)4936
 K(CuL+H)=3.5
 K(CuL+OH)=3.2

By spectrophotometry: K(CuL+I)=0.23, K(CuL+Br)=0.0, K(CuL+F)=-0.40,
 K(CuL+N3)=-0.2.

Cu ⁺⁺	gl	NaCl	25°C	0.15M	C		K1=20.323 B(CuHL)=23.437 B(CuH-1L)=8.61	1989JKa (52019)4937
Cu ⁺⁺	ISE	KNO3	20°C	0.10M	U		K1=20.4	1984HKa (52020)4938
Cu ⁺⁺	gl	KNO3	25°C	1.00M	C	H	K1=20.90 B(CuHL)=24.12	1982ABc (52021)4939
By calorimetry: DH1=-89.5 kJ mol ⁻¹ , DS1=100.4								
Cu ⁺⁺	gl	NaCl	25°C	0.15M	U		K1=20.01 B2=22.87 B(CuHL)=23.76 B(CuH-1L)=9.39 B(CuH3L2)=48.52 B(CuH4L2)=52.78	1977LSa (52022)4940
Cu ⁺⁺	sp	oth/un	25°C	0.10M	U		K1=20.1	1977TSa (52023)4941
Cu ⁺⁺	vlt	alc/w	25°C	40%	U		B2=22.28 B3=24.85	1974MIa (52024)4942
Cu ⁺⁺	gl	alc/w	25°C	65%	U	I	K1=20.7	1972Rba (52025)4943
Medium: 40-99% MeOH, 0.1 M NaClO4. K1(40%)=19.31; K1(99%)=23.26								
Cu ⁺⁺	cal	KNO3	25°C	0.10M	U	H		1965WHa (52026)4944
DH(K1)=-89.4 kJ mol ⁻¹ , DS=87.8 J K ⁻¹ mol ⁻¹								
Cu ⁺⁺	cal	KCl	25°C	0.10M	U	H		1961SPb (52027)4945
DG(K1)=-114.53 kJ mol ⁻¹ , DH=-90.2, DS=81.6 J K ⁻¹ mol ⁻¹								
Cu ⁺⁺	gl	oth/un	25°C	0.10M	U		K(Cu(OH)L+H)=10.8	1959CGb (52028)4946
Cu ⁺⁺	vlt	oth/un	30°C	?	U	H	K1=20.7	1957JBb (52029)4947
DH(K1)=-92.5 kJ mol ⁻¹								
Cu ⁺⁺	gl	oth/un	20°C	?	U		K1=20.5	1957Mca (52030)4948
Cu ⁺⁺	gl	KCl	25°C	0.10M	U		K1=20.1	1957RSb (52031)4949
Cu ⁺⁺	gl	KNO3	35°C	1.0M	U	H		1952JHa (52032)4950
Medium: 1(KNO3+KCl). DH(K1)=-92.0 kJ mol ⁻¹								
Cu ⁺⁺	gl	oth/un	30°C	1.0M	U	T	K1=20.62	1952JHa (52033)4951
40 C: K1=20.08								
Cu ⁺⁺	gl	KCl	20°C	0.10M	U		K1=20.4 K(Cu+HL)=14.0	1950SCa (52034)4952

C6H18N4 L Tren CAS 4097-89-6 (817)
 2,2',2''-Triaminotriethylamine; (H2N.CH2.CH2)3N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	NaCl04	25°C	0.25M	C			K1=18.86 *K(CuL(H2O))=-9.59	2001MLa (52148)	4953
Cu++	gl	NaCl04	25°C	1.00M	C			K1=19.58 K(Cu+HL)=13.22	1994AGa (52149)	4954
Cu++	gl	oth/un	25°C	0.10M	C			K1=18.5 K(CuLOH+H)=9.17	1982MMb (52150)	4955
Cu++	gl	KNO3	25°C	0.10M	C	M		K(CuL+OH)=4.44	1981WNb (52151)	4956
Cu++	gl	KNO3	25°C	0.10M	U			K1=18.86 B(CuH-1L)=-9.01	1975APc (52152)	4957
Cu++	gl	R4N.X	25°C	0.10M	C			K1=18.77	1975JTa (52153)	4958
Cu++	oth	KNO3	20°C	0.10M	U			K1=19.22	1971AWa (52154)	4959
Cu++	cal	KCl	25°C	0.10M	U	H		DG(K1)=107.43 kJ mol ⁻¹ , DH=-85.4, DS=75 J K ⁻¹ mol ⁻¹	1960PCa (52155)	4960
Cu++	gl	oth/un	20°C	->0	U	T H		K1=18.71 DH(K1)=-65.7 kJ mol ⁻¹ , DS=134 J K ⁻¹ mol ⁻¹ . K1=19.09(10 C), 18.40(30 C), 17.91(40 C)	1958BFb (52156)	4961
Cu++	gl	KCl	20°C	0.10M	U			K1=19.1	1953WSa (52157)	4962
Cu++	gl	KCl	20°C	0.10M	U			K1=18.8	1950PSa (52158)	4963

C6H19N2O9P3 H6L (8063)
 N-Methylethylenediamine-N,N',N'-trimethylenetris(phosphonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Cu++	gl	KNO3	25°C	0.10M	C			K1=24.0 K(CuL+H)=6.15 K(CuH2L+H)=3.62 K(CuHL+H)=4.65 K(CuH3L+H)=1.8	2001DSa (52229)	4964
Cu++	gl	KNO3	25°C	0.10M	C			K(CuL+OH)=1.7		
Cu++	gl	KNO3	25°C	0.10M	C			K1=24.0 K(CuL+H)=6.15 K(CuHL+H)=4.65	2001DSa (52230)	4965

K(CuH2L+H)=3.62

K(CuH3L+H)=1.8

K(CuL+OH)=1.7

C6H20N208P4 H4L CAS 938-16-3 (4402)
Ethylenediaminetetra(methylenephosphonous acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ g1 KNO3 25°C 0.10M U K1=9.75 1971MMh (52243)4966

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

Cu++ g1 KNO3 25°C 0.10M C K1=23.2 2001DSa (52270)4967

K(CuL+H)=7.73
K(CuH2L+H)=4.67
K(CuHL+H)=6.10
K(CuH3L+H)=3.8

K(CuL+OH)=1.7

Cu++ g1 KNO3 25°C 0.10M C K1=23.2 2001DSa (52271)4968

K(CuL+H)=7.73
K(CuHL+H)=6.10
K(CuH2L+H)=4.67
K(CuH3L+H)=3.8

K(CuL+OH)=1.7

Cu++ g1 NaCl 37°C 0.15M C K1=16.20 1995JWa (52272)4969

K(CuL+H)=9.91
K(CuH2L+H)=4.89
K(CuHL+H)=6.34
K(CuH3L+H)=4.15

Cu++ g1 KNO3 25°C 0.10M U K1=18.67 1980ZRa (52273)4970

K(Cu+HL)=16.77
K(Cu+H2L)=13.87
K(Cu+H3L)=10.42
K(Cu+H4L)=7.34

Cu++ g1 KNO3 25°C 0.10M C K1=23.21 1976MMa (52274)4971

K(CuL+H)=7.56
K(CuHL+H)=5.99
K(CuH2L+H)=4.62
K(CuH3L+H)=3.74

Cu++ g1 oth/un 25°C 0.10M U 1971MMb (52275)4972

K(CuL+H)=7.99

K(CuHL+H)=6.22
 K(CuH2L+H)=4.81
 K(CuH3L+H)=3.86

 Cu++ gl KCl 25°C 0.10M U K1=18.95 1967KDa (52276)4973
 K(Cu+HL)=14.82
 K(Cu+H2L)=11.14
 K(Cu+H3L)=8.31
 K(Cu+H4L)=5.67
 K(Cu+H5L)=3.28

Cu++ gl KNO3 25°C 0.10M U K1=16.1 1965WRa (52277)4974
 K(Cu+H3L)=9.1
 K(H+CuH2L)=5.85
 K(H+CuHL)=6.71
 K(H+CuL)=7.77

Cu++ gl oth/un 25°C 0.10M U K1=>10 1956WMe (52278)4975

 C7H4N2O6 HL CAS 2460-59-5 (3139)
 3,5-Dinitrosalicylaldehyde; HO.C6H2(NO2)2.CHO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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 Cu++ sp NaClO4 25°C 0.10M U K1=1.68 1966PMa (52392)4976

Cu++ EMF diox/w 20°C 50% U K1=2.1 B2=3.80 1963CCa (52393)4977
 Medium: 50% dioxan, 0.3 M NaClO4

Cu++ gl diox/w 25°C 75% U K1=2.20 B2=3.60 1958JPa (52394)4978
 Medium: 75% dioxan, 0.3 M NaClO4

 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
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 Cu++ gl KCl 25°C 0.20M U M K1=6.00 1992ASa (52426)4979
 K(CuL+asp)=9.40

Cu++ gl NaClO4 25°C 0.10M U K1=6.8 B2=11.8 1982DJa (52427)4980

Cu++ sp oth/un 25°C ? U K1=6.68 1981GSb (52428)4981

Cu++ gl NaClO4 35°C 0.10M U M K1=6.70 B2=10.65 1980MPb (52429)4982
 B(CuLA)=11.72

H3A=8-amino-1-naphthol-3,6-disulfonic acid

Cu++ gl NaClO4 30°C 0.10M U K1=6.75 B2=10.75 1979SJa (52430)4983
 Additional data for dioxan-mixed NaClO4 solutions

Cu++ gl KCl 25°C 0.0 C T H K1=7.69 1975DNd (52431)4984
DH(K1)=21.75 kJ mol⁻¹, DS=220.2 J mol⁻¹ K⁻¹. Calculated from 0.1 M KCl by
the Davies equation. Values also at 35 and 45 C

Cu++ gl NaClO4 30°C 0.10M U K1=6.70 B2=10.65 1975JKa (52432)4985

Cu++ gl NaClO4 30°C 0.10M U M K1=6.70 B2=11.65 1975SJa (52433)4986
B(CuL(phthalate))=7.63
B(CuL(4-OH-Salicylate))=13.36

Cu++ EMF NaClO4 30°C 0.10M U K1=6.70 B2=11.65 1972JKa (52434)4987

Cu++ gl KNO3 35°C 0.10M U K1=7.0 1970DDa (52435)4988

C7H4O2Br2 HL CAS 90-59-7 (3744)
2-Hydroxy-3,5-dibromobenzaldehyde (3,5-dibromosalicylaldehyde)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ EMF diox/w 20°C 50% U K1=4.6 B2=8.20 1963CCa (52519)4989
Medium: 50% dioxan, 0.3 M NaClO4

C7H4O2Cl2 HL CAS 90-60-8 (3743)
2-Hydroxy-3,5-dichlorobenzaldehyde (3,5-dichlorosalicylaldehyde)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ EMF diox/w 20°C 50% U K1=4.6 B2=7.60 1963CCa (52521)4990
Medium: 50% dioxan, 0.3 M NaClO4

C7H4O2I2 HL CAS 2631-77-8 (3745)
2-Hydroxy-3,5-di-iodobenzaldehyde (3,5-di-iodosalicylaldehyde)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ EMF diox/w 20°C 50% U K1=5.0 B2=8.90 1963CCa (52529)4991
Medium: 50% dioxan, 0.3 M NaClO4

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

Cu++ gl NaClO4 25°C 0.10M U T K1=8.4 B2=14.0 1982DJa (52535)4992

Cu++ gl NaClO4 30°C 0.10M U T K1=8.41 B2=14.01 1975JKa (52536)4993

Cu++ gl diox/w 30°C 75% U K1=14.39 B2=24.06 1974KJa (52537)4994

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

Cu++ gl NaClO4 25°C 0.10M U T K1=8.4 B2=14.0 1982DJa (52549)4995

Cu++ gl NaClO4 30°C 0.10M U T K1=8.35 B2=13.90 1975JKa (52550)4996

C7H4O3I2 H2L CAS 133-91-5 (4431)
3,5-Iodosalicylic acid; I2.C6H2.(OH)COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl alc/w 26°C 75% U K1=8.97 B2=16.23 1969SGd (52558)4997
Medium: 75% EtOH, 0.05 M NaClO4

C7H5NO HL Salicylnitrile CAS 611-20-1 (3746)
2-Cyanophenol; H0.C6H4.CN

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl diox/w 30°C 75% U K1=5.94 1964JVa (52573)4998
Medium: 75% dioxan, 0.1 M NaClO4

C7H5NOS HL CAS 7405-23-4 (3177)
4-Hydroxybenzothiazole;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

Cu++ gl diox/w 25°C 50% U K1=9.28 B2=17.43 1960FFa (52585)4999

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EXPLANATORY NOTES

DATA Flags are :-

T Data at other TEMPERATURES
 I Data with various BACKGROUNDS
 H Data for THERMOCHEMICAL quantities
 M Data for TERNARY Complexes

EVALUATION Flags are :-

T or IUP=T signifies EVALUATION RATING = Tentative by IUPAC
R or IUP=R signifies EVALUATION RATING = Recommended by IUPAC

END

 C9H15N5O2 L (7098)
 Glycyl-glycyl-histamine;

 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

 Cu+++ kin NaCl04 25°C 1.00M C 1995MSa (67596) 7
 K(CuH-1L+H)=8.5

 C10H15N5O4 HL Gly-Gly-His CAS 93404-95-6 (74)
 Glycyl-glycyl-histidine; H2N.CH2.CO.NH.CH2.CO.NH.CH(CH2.C3H3N2).COOH

 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

 Cu+++ kin NaCl04 25°C 1.00M C 1995MSa (72799) 8
 K(CuH-1L+H)=8.2

 C12H18N6O5 HL GlyGlyHisGly (7362)
 Glycyl-glycyl-histidyl-glycine;

 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

 Cu+++ EMF NaCl04 25°C 1.00M C 1997MFa (81958) 9
 K(CuH-2L=CuH-3L+H)=-8.79

 C12H19N5O4 HL Ala-Ala-His (7097)
 Alanyl-alanyl-histidine;

 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

 Cu+++ kin NaCl04 25°C 1.00M C 1995MSa (81985) 10
 K(CuH-1L+H)=8.2

 C14H23N5O4 HL (7096)
 2-Methylalanyl-2-methylalanyl-histidine;

 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

 Cu+++ kin NaCl04 25°C 1.00M C 1995MSa (89463) 11
 K(CuH-1L+H)=8.55
 K(CuL+H=CuHL)=4.05

 C16H26N6O5 HL CAS 191403-33-5 (7363)
 Bis(methylalanine)histidyl-glycine;

 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

 Cu+++ EMF NaCl04 25°C 1.00M C 1997MFa (94628) 12
 K(CuH-2L=CuH-3L+H)=-8.81

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EXPLANATORY NOTES

DATA Flags are :-

H Data for THERMOCHEMICAL quantities

END