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Software version = 5.81  Data version = 4.62
Experiment list contains 3143 experiments for
(no ligands specified)
2 metals : Ag+, Ag++
(no references specified)
(no experimental details specified)
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e- Electron;	HL	Electron	(442)
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C			1995LSb $K(\text{AgC}+\text{e}=\text{Ag}(\text{s})+\text{C})=-2.99(-177\text{mV})$ Medium:acetonitrile, 0.05 M Et4NClO4. Value is relative to the SCE(aq). C is cryptand 2,2,2. Data for many non-aqueous solvents.	(45)	1
Ag+	EMF	oth/un	-5°C	6.50M	C			1981BMa $K(\text{e} + \text{Ag}++=\text{Ag}^+)=37.17$ $E=1.978 \text{ V}$	(46)	2
Medium: 6.5 M HClO4										
Ag+	EMF	none	25°C	0.0	C	T		1980JPa $K=1.2094 (71.5 \text{ mV})$	(47)	3
K: AgBr(s)+e=Ag(s)+Br-. Data for 15-55 C.										
Ag+	sol	none	25°C	0.0	C	T		1976DMb Data for 15-35 C. $K(\text{AgSCN}+\text{e}=\text{Ag}+\text{SCN})=1.487 (88.0 \text{ mV})$ . At 20 C, E=92.8 mV; at 15 C, E=102.1 mV. K derived from Kso(AgSCN).	(48)	4
Ag+	sol	none	25°C	0.0	C			1976DRa $K(\text{AgBz}+\text{e}=\text{Ag}+\text{Bz})=9.391(556.5\text{mV})$	(49)	5
Bz is benzoate ion.										
Ag+	sol	none	25°C	0.0	C	T		1975DMa Data for 15-35 C. $K(\text{AgMnO}_4+\text{e}=\text{Ag}+\text{MnO}_4)=3.632 (214.9 \text{ mV})$ . At 20 C, E=224.9 mV; at 15 C, E=235.6 mV. K derived from Kso(AgMnO4).	(50)	6
Ag+	EMF	alc/w	25°C	10%	U	I		1974CKa $K=3.641(215.4\text{mV})$	(51)	7
Medium: 10% w/w MeOH/H2O, 1 M KCl; K: AgCl(s) + e=Ag(s)+Cl-. $K=3.426(202.7\text{mV}, w=30), 3.332(197.1\text{mV}, w=40), 3.279(194.0\text{mV}, w=45)$										
Ag+	EMF	none	35°C	0.00	U	T		1974DSb $K=-0.487(-29.75\text{mV})$	(52)	8
K: AgSeCN(s)+e=Ag(s)+SeCN-. $K=-0.486(-30.22\text{mV}, 40 \text{ C}), -0.492(-31.05\text{mV}, 45 \text{ C}), -0.491(-31.51\text{mV}, 50 \text{ C})$										

Ag+	EMF non-aq 25°C 100%	U I	1974KJb	(53)	9
K=-0.07(-4.4mV)					
In 10% w/w propylene glycol-MeOH. K: AgCl(s)+e=Ag(s)+Cl <sup>-</sup> . K=-0.17(-10.3mV, w=0), -0.08(-4.8mV, w=20), -0.17(-10.0mV, w=50)					
Ag+	EMF non-aq 25°C 100%	U I	1974KJb	(54)	10
K=-0.27(-16.0mV)					
In 70% w/w propylene glycol-MeOH; K: AgCl(s)+e=Ag(s)+Cl <sup>-</sup> . K=-0.44(-26.0mV, w=90), -0.55(-32.3mV, w=100)					
Ag+	EMF mixed 5°C 20%	U I	1974KRc	(55)	11
K=3.92(216.6mV)					
Medium: 20% w/w diethylene glycol/H <sub>2</sub> O. K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=3.76(207.3mV, w=40), 3.45(190.3mV, w=60), 2.85(157.2mV, w=80)					
Ag+	EMF mixed 45°C 20%	U I	1974KRc	(56)	12
K=3.00(189.4mV)					
In 20% w/w diethylene glycol/H <sub>2</sub> O. K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=2.82(177.8mV, w=40), 2.35(148.4mV, w=60), 1.67(105.4mV, w=80) (also 15, 25 & 35 C)					
Ag+	EMF none 25°C 0.00	U T	1974LLc	(57)	13
K=1.017(60.14mV)					
In D <sub>2</sub> O; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=1.086(63.14mV, 20 C), 0.949(57.06mV, 30 C), 0.882(53.9mV, 35 C), 0.815(50.67mV, 40 C)					
Ag+	EMF none 45°C 0.00	U T	1974LLc	(58)	14
K=0.750(47.35mV)					
In D <sub>2</sub> O; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=0.685(43.95mV, 50 C), 0.622(40.48mV, 55 C), 0.559(36.93mV, 60 C), 0.497(33.33mV, 65 C)					
Ag+	EMF none 70°C 0.00	U T	1974LLc	(59)	15
K=0.435(29.59mV)					
Medium: D <sub>2</sub> O; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=0.373(25.79mV, 75 C)					
Ag+	EMF non-aq 25°C 100%	U T	1974Nwa	(60)	16
K=ca.10.5(ca.622mV)					
Medium: NH <sub>3</sub> (liquid); K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=14.72(681mV, -40 C)					
Ag+	EMF non-aq 25°C 100%	U I	1973BSb	(61)	17
K=-0.194(-11.48mV)					
In 5 % w/w acetonitrile/MeOH; K: AgCl(s)+e=Ag(s)+Cl <sup>-</sup> . K=-0.205(-12.12mV, w=0) -0.227(-13.41mV, w=10), -0.325(-19.22mV, w=20)					
Ag+	EMF non-aq 25°C 100%	U	1973BSb	(62)	18
K=-0.764(-45.17mV)					
In 40% w/w acetonitrile/MeOH; K: AgCl(s)+e=Ag(s)+Cl <sup>-</sup>					
Ag+	EMF non-aq 25°C 100%	U I	1973KDa	(63)	19
K=-0.53(-31.2mV)					
In 50% w/w ethylene glycol/MeCN; K: AgCl(s)+e=Ag(s)+Cl <sup>-</sup> . Data also for 50%					

w/w ethylene glycol-Me<sub>2</sub>NCHO: K=-1.59(-94.2mV)

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Ag+ EMF mixed 25°C 11% U I 1973KMb (64) 20  
K=4.39(259.9mV)

In 11.5% w/w CO(NH<sub>2</sub>)<sub>2</sub>/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=4.68(276.8mV,w=20.3),  
4.93(291.6mV,w=29.6)

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Ag+ EMF mixed 25°C 37% U 1973KMb (65) 21  
K=5.07(299.7mV)

In 36.8% w/w CO(NH<sub>2</sub>)<sub>2</sub>/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. Also 10, 15, 20, 30, 35  
and 40 C

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Ag+ ISE non-aq 25°C 100% U 1973NDb (66) 22  
K=4.331(256.2mV)

Medium: formamide; K: AgIO<sub>3</sub>(s)+e=Ag(s)+IO<sub>3</sub><sup>-</sup>

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Ag+ EMF alc/w 25°C 50% U T 1973RRa (67) 23  
K=0.901(53.33mV)

Medium: 50% w/w MeOH/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=1.180(65.15mV,5 C),  
1.112(62.47mV,10 C), 1.043(59.61mV,15 C)

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Ag+ EMF alc/w 20°C 50% U T 1973RRa (68) 24  
K=0.973(56.60mV)

Medium: 50% w/w MeOH/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=0.830(49.92mV,30 C),  
0.757(46.28mV,35 C), 0.684(42.52mV,40 C)

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Ag+ EMF alc/w 45°C 50% U T 1973RRa (69) 25  
K=0.610(38.51mV)

Medium: 50% w/w MeOH/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=0.535(34.30mV,50 C),  
0.458(29.85mV,55 C), 0.383(25.35mV,60 C)

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Ag+ EMF alc/w 25°C 30% U I 1972BLb (70) 26  
K=1.02(60.4mV)

Medium: 30% w/w EtOH/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=0.85(50.0mV,w=50),  
0.49(29.0mV,w=72), -3.36(-198.5mV,w=100)

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Ag+ EMF mixed 25°C 20% U I 1972BLb (71) 27  
K=1.15(68.3mV)

Medium: 20% w/w acetone/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=0.96(56.5mV,w=40),  
0.46(27.1mV,w=60), -0.76(-44.8mV,w=80), -6.51(-385mV,w=100)

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Ag+ EMF diox/w 25°C 70% U I 1972BLb (72) 28  
K=0.92(54.4mV)

Medium: 70% w/w dioxan/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>

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Ag+ EMF alc/w 25°C 30% U I 1972BLb (73) 29  
K=-2.54(-150.3mV)

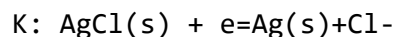
Medium: 30% w/w EtOH/H<sub>2</sub>O; K: AgI(s)+e=Ag(s)+I<sup>-</sup>. K=-2.51(-148.6mV,w=50),  
-2.80(-165.9mV,w=72), -6.47(-382.6mV,w=100)

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Ag+	EMF mixed	25°C	20%	U	I	1972BLb	(74)	30
K=-2.38(-140.7mV)								
Medium: 20% w/w acetone/H <sub>2</sub> O; K: AgI(s)+e=Ag(s)+I <sup>-</sup> . K=-2.27(-134.0mV, w=40), -2.43(-143.9mV, w=60), -3.15(-186.2mV, w=80), -6.51(-385mV, w=100)								
Ag+	EMF diox/w	25°C	70%	U		1972BLb	(75)	31
K=-3.79(-224.3mV)								
Medium: 70% w/w dioxan/H <sub>2</sub> O; K: AgI(s)+e=Ag(s)+I <sup>-</sup>								
Ag+	oth oth/un	25°C	0.0	U	I	1972C0a	(76)	32
K(Ag+e=Ag(s))=13.40(739mV)								
Method: Estimated data. K=9.15(541mV in MeOH, 8.42(498mV) in EtOH, 8.42(498mV) in BuOH, 8.77(519mV) in PentOH, 7.32(433mV) in acetone								
Ag+	oth non-aq	25°C	100%	U	I	1972C0a	(77)	33
K(Ag+e=Ag(s))=-0.02(-1mV)								
Method: Estimated data. Medium: MeCN. In HCOOH, K=-1.49(-88mV). Also in NH <sub>3</sub> , N <sub>2</sub> H <sub>4</sub>								
Ag+	EMF NaCl04	25°C	3.00M	U	TI	1972GIa	(78)	34
K=3.15(186.3mV)								
Medium: HCl04; K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=2.40(158.6mV, 60 C). Data also in 3 M HCl(K=3.41(201.8mV, 25 C), 2.74(180.8mV, 60 C)								
Ag+	EMF NaCl04	25°C	3.00M	U	TI	1972GIa	(79)	35
K=3.47(205.5mV)								
K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=2.66(175.9mV, 60 C). Data also in 3 M NaCl: K=3.61(213.4mV, 25 C), 2.88(190.7mV, 60 C)								
Ag+	EMF oth/un	25°C	3.00M	U	TI	1972GIa	(80)	36
K=0.48(28.6mV)								
Medium: HCl04; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=0.05(3.5mV, 60 C). Data also in 3 M HBr: K=0.62(36.8mV, 25 C), 0.26(17.1mV, 60 C))								
Ag+	EMF NaCl04	25°C	3.00M	U	TI	1972GIa	(81)	37
K=0.86(50.8mV)								
K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=0.37(24.2mV, 60 C). Data also in 3 M NaBr: K=0.86(51.1mV, 25 C), 0.46(30.2mV, 60 C))								
Ag+	EMF alc/w	25°C	10%	U	T	1972GSb	(82)	38
K=3.626(214.5mV)								
Medium: 10% w/w EtOH/H <sub>2</sub> O; K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=3.408(208.40mV, 35 C), 3.297(204.84mV, 40 C)								
Ag+	EMF alc/w	25°C	30%	U	T	1972GSb	(83)	39
K=3.394(200.76mV)								
Medium: 30% w/w EtOH/H <sub>2</sub> O; K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=3.174(194.07mV, 35 C), 3.061(190.17mV, 40 C)								
Ag+	EMF alc/w	25°C	40%	U	T	1972GSb	(84)	40

K=3.144(185.99mV)									
Medium: 40% w/w EtOH/H <sub>2</sub> O; K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=2.895(176.99mV, 35 C), 2.746(170.63mV, 40 C)									
Ag+	EMF non-aq	25°C	10%	U	I	1972KDa	(85)	41	
K=-0.08(-4.5mV)									
In 10% w/w propylene glycol/MeOH. K: AgCl(s)+e=Ag(s)+Cl <sup>-</sup> . K=-0.15(-9.0mV, w=0) -0.12(-7.0mV, w=30), -0.17(-10.0mV, w=50)									
Ag+	EMF non-aq	25°C	70%	U	I	1972KDa	(86)	42	
K=-0.29(-17.0mV)									
In 70% w/w propylene glycol/MeOH. K: AgCl(s)+e=Ag(s)+Cl <sup>-</sup> . K=-0.46(-27.5mV, w=90), -0.54(-32.0mV, w=100)									
Ag+	EMF non-aq	25°C	100%	U	I	1972KDa	(87)	43	
K=-2.21(-131mV)									
Medium: 10% w/w propylene glycol/MeOH; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=-2.27(-134mV, w=0), -2.23(-132mV, w=30), -2.29(-135.5mV, w=50)									
Ag+	EMF non-aq	25°C	100%	U	I	1972KDa	(88)	44	
K=-2.44(-144.5mV)									
Medium: 70% w/w propylene glycol/MeOH; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=-2.62(-155mV, w=90), -2.76(-163.3mV, w=100)									
Ag+	EMF alc/w	25°C	10%	U	I	1972KHb	(89)	45	
K=1.13(66.7mV)									
Medium: 10% w/w MeOH/H <sub>2</sub> O; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=1.05(62.1mV, w=20.2), 1.00(58.9mV, w=30), 0.98(57.8mV, w=33.4)									
Ag+	EMF alc/w	25°C	43%	U	I	1972KHb	(90)	46	
K=0.92(54.6mV)									
Medium: 43.1% w/w MeOH/H <sub>2</sub> O; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=0.88(51.9mV, w=50), 0.77(45.5mV, w=60), 0.63(37.2mV, w=68.3), -0.31(-18.3mV, w=90)									
Ag+	EMF mixed	25°C	10%	U	I	1972KHc	(91)	47	
K=3.655(216.24mV)									
In 10% w/w glycerol/H <sub>2</sub> O; K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=3.535(209.14mV, w=20), 3.408(201.62mV, w=30), 3.268(193.34mV, w=40), 2.615(154.7mV, w=70)									
Ag+	EMF mixed	25°C	10%	U	I	1972KHc	(92)	48	
K=1.12(66.2mV)									
Medium: 10% w/w glycerol/H <sub>2</sub> O; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=1.01(60.0mV, w=20), 0.91(53.9 mV, w=30), 0.79(46.7mV, w=40), 0.66(38.9mV, w=50), 0.23(13.8mV, w=70)									
Ag+	EMF mixed	25°C	10%	U	I	1972KHc	(93)	49	
K=-2.60(-154.1mV)									
Medium: 10% w/w glycerol/H <sub>2</sub> O; K: AgI(s)+e=Ag(s)+I <sup>-</sup> . K=-2.68(-158.5mV, w=20), -2.73(-161.7mV, w=30), -2.79(-165.0mV, w=40), -2.85(-168.6mV, w=50)									
Ag+	EMF none	25°C	0.00	U		1972KKa	(94)	50	

$$K=3.759(222.38\text{mV})$$




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Ag+ EMF non-aq 25°C 100% U T 1972RBc (95) 51

$$K=-1.160(-68.63\text{mV})$$

In butanol; K:  $\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}^-$ .  $K=-0.529(-29.18\text{mV}, 5\text{ C}), -0.717(-40.27\text{mV}, 10\text{ C}), -0.817(-46.72\text{mV}, 15\text{ C}), -0.963(-56.02\text{mV}, 20\text{ C})$

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Ag+ EMF non-aq 30°C 100% U T 1972RBc (96) 52

$$K=-1.448(-87.09\text{mV})$$

In butanol; K:  $\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}^-$ .  $K=-1.687(-103.12\text{mV}, 35\text{ C}), -1.739(-108.02\text{mV}, 40\text{ C}), -2.005(-126.59\text{mV}, 45\text{ C})$

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Ag+ EMF mixed 25°C 5% U T 1972RVa (97) 53

$$K=3.430(202.9\text{mV})$$

In 5% w/w butanol/H<sub>2</sub>O; K:  $\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}^-$ .  $K=3.928(216.8\text{mV}, 5\text{ C}), 3.675(210.1\text{mV}, 15\text{ C}), 3.202(195.8\text{mV}, 35\text{ C}), 2.983(188.3\text{mV}, 45\text{ C})$

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Ag+ EMF mixed 25°C 95% U T 1972RVb (98) 54

$$K=0.356(21.05\text{mV})$$

Medium: 95% w/w propanol/H<sub>2</sub>O; K:  $\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}^-$ .  $K=0.823(45.42\text{mV}, 5\text{ C}), 0.754(42.35\text{mV}, 10\text{ C}), 0.588(33.63\text{mV}, 15\text{ C}), 0.533(31.00\text{mV}, 20\text{ C})$

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Ag+ EMF mixed 45°C 95% U T 1972RVb (99) 55

$$K=-0.324(-20.47\text{mV})$$

Medium: 95% w/w propanol/H<sub>2</sub>O; K:  $\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}^-$ .  $K=0.131(7.85\text{mV}, 30\text{ C}), -0.052(-3.19\text{mV}, 35\text{ C}), -0.323(-20.07\text{mV}, 40\text{ C})$

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Ag+ EMF mixed 5°C 2% U I 1972RVc (100) 56

$$K=4.153(229.2\text{mV})$$

Medium: 2% w/w t-butanol/H<sub>2</sub>O. K:  $\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}^-$ .  $K=4.084(225.4\text{mV}, w=4), 4.071(224.7\text{mV}, w=8)$

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Ag+ EMF mixed 25°C 2% U I 1972RVc (101) 57

$$K=3.641(215.4\text{mV})$$

Medium: 2% w/w t-butanol/H<sub>2</sub>O. K:  $\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}^-$ .  $K=3.597(212.8\text{mV}, w=4), 3.555(210.3\text{mV}, w=8)$

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Ag+ EMF mixed 45°C 2% U I 1972RVc (102) 58

$$K=3.154(199.1\text{mV})$$

Medium: 2% w/w t-butanol/H<sub>2</sub>O. K:  $\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}^-$ .  $K=3.086(194.8\text{mV}, w=4), 3.080(194.4\text{mV}, w=8)$  also 10, 15, 20, 30 and 40 C

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Ag+ EMF non-aq 25°C 100% U T 1972RVd (103) 59

$$K=-2.262(-133.8\text{mV})$$

Medium: i-propanol; K:  $\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}^-$ .  $K=-2.033(-112.2\text{mV}, 5\text{ C}), -2.138(-120.1\text{mV}, 10\text{ C}), -2.185(-124.9\text{mV}, 15\text{ C}), -2.199(-127.9\text{mV}, 20\text{ C})$

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Ag+ EMF non-aq 30°C 100% U T 1972RVd (104) 60

$$K=-2.303(-138.6\text{mV})$$

Medium: i-propanol; K:  $\text{AgCl(s)} + \text{e} = \text{Ag(s)} + \text{Cl}^-$ .  $K = -2.367(-144.7\text{mV}, 35\text{ C})$ ,  
 $-2.446(-152.0\text{mV}, 40\text{ C})$ ,  $-2.544(-160.6\text{mV}, 45\text{ C})$

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Ag+ EMF non-aq 25°C 100% U T 1972RVe (105) 61  
 $K = 0.35(20.77\text{mV})$

Medium: glycerol; K:  $\text{AgCl(s)} + \text{e} = \text{Ag(s)} + \text{Cl}^-$ .  $K = 0.74(40.65\text{mV}, 5\text{ C})$ ,  $0.56(31.74\text{mV}, 10\text{ C})$ ,  $0.46(26.05\text{mV}, 15\text{ C})$ ,  $0.43(25.11\text{mV}, 20\text{ C})$

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Ag+ EMF non-aq 30°C 100% U T 1972RVe (106) 62  
 $K = 0.23(14.07\text{mV})$

In glycerol; K:  $\text{AgCl(s)} + \text{e} = \text{Ag(s)} + \text{Cl}^-$ .  $K = 0.16(9.56\text{mV}, 35\text{ C})$ ,  $-0.06(-3.53\text{mV}, 40\text{ C})$ ,  $-0.12(-7.76\text{mV}, 45\text{ C})$

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Ag+ EMF mixed 25°C 5% U T 1972RVf (107) 63  
 $K = 3.440(203.50\text{mV})$

Medium: 5% w/w 2-methyl-1-propanol/H<sub>2</sub>O K:  $\text{AgCl(s)} + \text{e} = \text{Ag(s)} + \text{Cl}^-$ .  $K = 3.810(210.28\text{mV}, 5\text{ C})$ ,  $3.649(208.64\text{mV}, 15\text{ C})$ ,  $3.187(194.88\text{mV}, 35\text{ C})$ ,  $2.895(45\text{ C})$

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Ag+ EMF mixed 25°C 5% U T 1972RVg (108) 64  
 $K = 3.68(217.9\text{mV})$

Medium: 5 % w/w DMSO/H<sub>2</sub>O; K:  $\text{AgCl(s)} + \text{e} = \text{Ag(s)} + \text{Cl}^-$ .  $K = 4.19(231.4\text{mV}, 5\text{ C})$ ,  $3.94(225.5\text{mV}, 15\text{ C})$ ,  $3.44(210.2\text{mV}, 35\text{ C})$ ,  $3.23(203.6\text{mV}, 45\text{ C})$

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Ag+ EMF mixed 25°C 10% U T 1972RVg (109) 65  
 $K = 3.63(214.8\text{mV})$

Medium: 10% w/w DMSO/H<sub>2</sub>O; K:  $\text{AgCl(s)} + \text{e} = \text{Ag(s)} + \text{Cl}^-$ .  $K = 4.19(231.2\text{mV}, 5\text{ C})$ ,  $3.87(221.0\text{mV}, 15\text{ C})$ ,  $3.42(209.3\text{mV}, 35\text{ C})$ ,  $3.21(202.9\text{mV}, 45\text{ C})$

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Ag+ EMF mixed 25°C 20% U T 1972RVg (110) 66  
 $K = 3.58(211.7\text{mV})$

Medium: 20% w/w DMSO/H<sub>2</sub>O; K:  $\text{AgCl(s)} + \text{e} = \text{Ag(s)} + \text{Cl}^-$ .  $K = 4.11(227.1\text{mV}, 5\text{ C})$ ,  $3.82(218.6\text{mV}, 15\text{ C})$ ,  $3.40(207.6\text{mV}, 35\text{ C})$ ,  $3.15(199.0\text{mV}, 45\text{ C})$

---

Ag+ EMF mixed 25°C 0.02M U I 1972SHa (111) 67  
 $K = 3.75(222.0\text{mV})$

In C M C<sub>6</sub>H<sub>5</sub>OH in H<sub>2</sub>O at  $C = 0.025$ ; K:  $\text{AgCl(s)} + \text{e} = \text{Ag(s)} + \text{Cl}^-$ .  $K = 3.76(222.2\text{mV}, C = 0)$ ,  $3.75(221.7\text{mV}, C = 0.05)$ ,  $3.74(221.4\text{mV}, C = 0.075)$

---

Ag+ EMF mixed 25°C 0.15M U 1972SHa (112) 68  
 $K = 3.77(223.1\text{mV})$

In C M C<sub>6</sub>H<sub>5</sub>OH in H<sub>2</sub>O, at  $C = 0.15$ ; K:  $\text{AgCl(s)} + \text{e} = \text{Ag(s)} + \text{Cl}^-$ ; also 30, 35, 40, 35 C

---

Ag+ oth non-aq 300°C 100% U T 1971BJc (113) 69  
 $K(\text{Ag} + \text{e} = \text{Ag(s)}) = 5.94(675\text{mV})$

Method: Estimated data. Temp. Range (300-400). 309 C:  $5.72(661\text{mV})$ , 350 C:  $5.27(651\text{mV})$ , 400 C:  $4.69(627\text{mV})$ . Medium: fused (Na, K)NO<sub>3</sub>

---

Ag+ oth non-aq 309°C 100% U T 1971BJc (114) 70  
 $K(\text{Ag} + \text{e} = \text{Ag(s)}) = 5.95(687\text{mV})$

Method: Estimated data. Medium fused NaX:  $5.95(687\text{mV})$  X=NO<sub>3</sub>-,  $3.96(456\text{mV})$

X=NO2-

---

Ag+ oth non-aq 400°C 100% U T 1971BJc (115) 71  
K(Ag+e=Ag(s))=-0.28(-37mV)

Method:Estimated data. At 450 C: -0.47(-68mV), 550 C: -0.80(131mV).

Medium: fused (Li,K)Cl

---

Ag+ oth non-aq 550°C 100% U 1971BJc (116) 72  
K(Ag+e=Ag(s))=3.59(586mV)

Method:Estimated data.Medium: fused (Li,Na,K)SO4. In fused (Li,Na)CO3,  
550 C, K=2.04(334mV)

---

Ag+ EMF non-aq 25°C 100% U I 1971BSc (117) 73  
K=-0.75(-44.56mV)

Medium: 40% w/w acetonitrile/MeOH; K: AgCl(s)+e=Ag(s)+Cl-

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Ag+ vlt none 25°C 0.00 U 1971JPa (118) 74  
K(Ag + e=Ag(s))=13.61(805mV)

---

Ag+ EMF mixed 25°C 10% U I 1971KHa (119) 75  
K=3.736(221.02mV)

In 10% w/w DMSO/H2O; K: AgCl(s) + e=Ag(s)+Cl-. K=3.718(219.92mV,w=20), 3.680  
(217.68mV,w=40), 3.578(211.66mV,w=60), 2.994(177.1mV,w=80)

---

Ag+ EMF mixed 25°C 10% U I 1971KHa (120) 76  
K=1.24(73.6mV)

Medium: 10% w/w DMSO/H2O; K: AgBr(s)+e=Ag(s)+Br-. K=1.29(76.5mV,w=20),  
1.51(89.6mV,w=40), 1.76(104.0mV,w=60), 1.71(101.4mV,w=70), 1.61(95.0mV,w=80)

---

Ag+ EMF mixed 25°C 10% U I 1971KHa (121) 77  
k=-2.43(-143.6mV)

Medium: 10% w/w DMSO/H2O; K: AgI(s)+e=Ag(s)+I-. K=-2.27(-134.3mV,w=20),  
-1.79(-105.9 mV,w=40), -1.10(-65.3mV,w=60)

---

Ag+ EMF none 25°C 0.00 U 1971KKg (122) 78  
K=3.758(222.33mV)

K: AgCl(s) + e=Ag(s)+Cl-

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Ag+ EMF diox/w 20°C 5% U I 1971MMf (123) 79  
K=1.209(70.32mV)

Medium: 5 % w/w dioxan/H2O; K: AgBr(s)+e=Ag(s)+Br-. K=1.170(68.03mV,w=10),  
1.128(65.63mV,w=15), 1.093(63.59mV,w=20)

---

Ag+ EMF diox/w 20°C 45% U I 1971MMf (124) 80  
K=0.680(39.55mV)

Medium: 45% w/w dioxan/H2O; K: AgBr(s)+e=Ag(s)+Br-. K=-0.875(-50.88mV,w=70),  
-2.859(-166.3mV,w=82)

---

Ag+ EMF diox/w 25°C 5% U I 1971MMf (125) 81  
K=1.147(67.85mV)



Medium: 5 % w/w dioxan/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=1.106(65.42mV,w=10),  
1.060(62.71mV,w=15), 1.017(60.15mV,w=20)

---

Ag+ EMF diox/w 25°C 45% U I 1971MMf (126) 82  
K=0.583(34.47mV)

Medium: 45% w/w dioxan/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=-0.997(-58.98mV,w=70),  
-3.017(-178.5mV,w=82)

---

Ag+ EMF diox/w 30°C 5% U I 1971MMf (127) 83  
K=1.080(64.97mV)

Medium: 5 % w/w dioxan/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=1.041(62.64mV,w=10),  
0.993(59.70mV,w=15), 0.947(56.98mV,w=20)

---

Ag+ EMF diox/w 30°C 45% U I 1971MMf (128) 84  
K=0.484(29.14mV)

Medium: 45% w/w dioxan/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=-1.138(-68.47mV,w=70),  
-3.157(-189.9mV,w=82)

---

Ag+ EMF diox/w 35°C 5% U I 1971MMf (129) 85  
K=1.015(62.05mV)

Medium: 5 % w/w dioxan/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=0.976(59.65mV,w=10),  
0.922(56.40mV,w=15), 0.873(53.35mV,w=20)

---

Ag+ EMF diox/w 35°C 45% U I 1971MMf (130) 86  
K=0.387(23.64mV)

Medium: 45% w/w dioxan/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=-1.260(-77.05mV,w=70),  
-3.314(-202.6mV,w=82)

---

Ag+ EMF mixed 25°C 8% U I 1971RBb (131) 87  
K=3.469(205.22mV)

Medium: 8.0% w/w i-propanol/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>.  
K=3.758(222.34mV,w=0), 3.299(195.17mV,w=20.8), 3.014(178.31mV,w=44.0)

---

Ag+ EMF mixed 25°C 70% U I 1971RBb (132) 88  
K=2.195(129.87mV)

Medium: 70.3% w/w i-propanol/H<sub>2</sub>O; K:AgCl(s) + e=Ag(s)+Cl<sup>-</sup>.  
K=1.226(72.53mV,w=87.7%) also data at 0, 15 and 35 C

---

Ag+ EMF mixed 25°C 8% U I 1971RBb (133) 89  
K=3.64(215.5mV)

In 8.7% w/w monoglyme/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=3.53(209.0mV,w=17.8),  
2.13(126.2mV,w=57) also 15 and 35 C

---

Ag+ EMF mixed 25°C 18% U I 1971RBb (134) 90  
K=3.45(203.8mV)

In 18.2% w/w tetrahydrofuran/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=1.57(93.1mV,  
w=73), -0.44(-25.8mV,w=89) also 15 and 35 C

---

Ag+ EMF mixed 25°C 10% U T 1971RVa (135) 91  
K=3.484(206.1mV)

Medium:10% w/w t-butanol/H<sub>2</sub>O. K:AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=3.912(215.9mV,5 C), 3.040(191.9mV,45 C)

---

Ag+ EMF mixed 25°C 20% U T 1971RVa (136) 92  
K=3.308(195.7mV)

Medium:20% w/w t-butanol/H<sub>2</sub>O. K:AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=3.774(208.3mV,5 C), 2.950(186.2mV,45 C)

---

Ag+ EMF mixed 25°C 40% U T 1971RVa (137) 93  
K=3.119(184.5mV)

Medium:40% w/w t-butanol/H<sub>2</sub>O. K:AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=3.557(196.3mV,5 C), 2.638(166.5mV,45 C)

---

Ag+ EMF mixed 25°C 70% U T 1971RVa (138) 94  
K=2.115(125.1mV)

Medium:70% w/w t-butanol/H<sub>2</sub>O. K:AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=2.616(144.4mV,5 C), 1.624(102.5mV,45 C), also intermediate temperatures

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Ag+ EMF mixed 25°C 5% U T 1971RVb (139) 95  
K=3.73(220.9mV)

In 5 % w/w propene carbonate/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=4.18(230.8mV, 5 C), 3.30(208.2mV,45 C)

---

Ag+ EMF mixed 25°C 10% U T 1971RVb (140) 96  
K=3.70(218.8mV)

In 10% w/w propene carbonate/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=4.15(228.9mV, 5 C), 3.25(204.9mV,45 C)

---

Ag+ EMF mixed 25°C 20% U T 1971RVb (141) 97  
K=3.60(213.2mV)

In 20% w/w propene carbonate/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=4.11(226.6mV, 5 C), 3.15(199.0mV,45 C) also intermediate temperatures

---

Ag+ EMF mixed 25°C 5% U T 1971RVc (142) 98  
K=3.742(221.39mV)

Medium: 5% w/w N,N-dimethylformamide/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=4.182(230.81mV,5 C), 3.977(227.35mV,15 C), 3.518(215.07mV,35 C)

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Ag+ EMF mixed 45°C 5% U 1971RVc (143) 99  
K=3.244(204.76mV)

Medium: 5% w/w N,N-dimethylformamide/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>

---

Ag+ EMF mixed 25°C 10% U T 1971RVc (144) 100  
K=3.632(214.87mV)

Medium: 10% w/w N,N-dimethylformamide/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=4.103(226.43mV,5 C), 3.902(223.07mV,15 C), 3.446(210.63mV,35 C)

---

Ag+ EMF mixed 45°C 10% U 1971RVc (145) 101  
K=3.174(200.38mV)

Medium: 10% w/w N,N-dimethylformamide/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>



Ag+	EMF mixed	25°C	5%	U	I	1971STb	(156)	112
						K=3.71(219.4mV)		
In 5% w/w methylcellosolve/H <sub>2</sub> O; K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=3.76(222.6mV,w=0) 3.65(215.7mV,w=10), 3.52(208.3mV,w=20)								
Ag+	EMF mixed	25°C	30%	U	I	1971STb	(157)	113
						K=3.39(200.7mV)		
In 30% w/w methylcellosolve/H <sub>2</sub> O; K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=3.25(192.1mV, w=40), 3.05(180.6mV,w=50)								
Ag+	EMF mixed	25°C	60%	U	I	1971STb	(158)	114
						K=2.78(164.4mV)		
in 60% w/w methylcellosolve/H <sub>2</sub> O; K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=1.52(90.0mV, w=80). Also 30, 35, 40 and 45 C								
Ag+	EMF non-aq	25°C	100%	U	I	1970ABb	(159)	115
						K=-1.83(-108.5mV)		
In 25% v/v benzene-EtOH; K: AgCl(s)+e=Ag(s)+Cl <sup>-</sup> . K=-3.74(-221.0mV,v=50), -5.66(-333.0mV,v=75) also mixtures containing 0.05-1 M H <sub>2</sub> O								
Ag+	EMF non-aq	25°C	100%	U		1970BPc	(160)	116
						K=3.52(0.208V)		
Medium: acetamide; K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup>								
Ag+	EMF alc/w	25°C	10%	U	I	1970FKc	(161)	117
						K=-2.61(-154.2mV)		
Medium: 10% w/w MeOH/H <sub>2</sub> O; K: AgI(s)+e=Ag(s)+I <sup>-</sup> . K=-2.61(-154.2mV,w=20.2), -2.53(-149.9mV,w=33.4), -2.52(-149.0mV,w=43.1), -2.52(-149.3mV,w=50)								
Ag+	EMF none	25°C	0.00	U	I	1970FLa	(162)	118
						K(Ag+e=Ag(s))=13.508(799.1mV)		
Data also in dioxan: K=13.655(807.8mV)								
Ag+	EMF alc/w	25°C	10%	U	I	1970FLa	(163)	119
						K(Ag+e=Ag(s))=13.633(806.5mV)		
Medium: 10% w/w MeOH/H <sub>2</sub> O. K=13.765(814.3mV,w=20.2%), 13.964(826.1mV,33.4%), 14.140(836.5mV,43.1%)								
Ag+	EMF non-aq	25°C	100%	U	T	1970KCb	(164)	120
						K=-0.55(-32.3mV)		
Medium: propylene glycol. K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=-0.03(-1.5mV,5 C), -0.16(-8.9mV,10 C), -0.29(-16.6mV,15 C), -0.42(-24.4mV,20 C)								
Ag+	EMF non-aq	30°C	100%	U	T	1970KCb	(165)	121
						K=-0.67(-40.2mV)		
Medium: propylene glycol. K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=-0.79(-48.3mV,35 C), -0.90(-56.1mV,40 C), -1.01(-63.8mV,45 C)								
Ag+	EMF non-aq	25°C	100%	U	T	1970KCb	(166)	122

				K=-1.70(-100.7mV)	
Medium: ethylene glycol; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=-1.41(-78.0mV,5 C), -1.50(-84.0mV,10 C), -1.57(-89.5mV,15 C), -1.64(-95.2mV,20 C)					
Ag+	EMF non-aq	30°C	100%	U T	1970KCb (167) 123
				K=-1.78(-106.8mV)	
Medium: ethylene glycol; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=-1.85(-113.0mV,35 C), -1.91(-118.7mV,40 C), -1.97(-124.5mV,45 C)					
Ag+	EMF non-aq	25°C	100%	U T	1970KJa (168) 124
				K=-2.76(-163.3mV)	
Medium: propylene glycol; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=-2.43(-134.2mV,5 C), -2.51(-141.1mV,10 C), -2.60(-148.9mV,15 C), -2.68(-156.0mV,20 C)					
Ag+	EMF non-aq	30°C	100%	U T	1970KJa (169) 125
				K=-2.84(-170.6mV)	
Medium: propylene glycol; K: AgBr(s)+e=Ag(s)+Br <sup>-</sup> . K=-2.92(-178.4mV,35 C), -2.99(-185.7mV,40 C), -3.07(-193.7mV,45 C)					
Ag+	EMF non-aq	25°C	100%	U T	1970KJa (170) 126
				K=-4.95(-292.8mV)	
Medium: ethylene glycol; K: AgI(s)+e=Ag(s)+I <sup>-</sup> . K=-4.94(-272.8mV,5 C), -4.94(-277.4mV,10 C), -5.12(-292.8mV,15 C), -4.95(-287.8mV,20 C)					
Ag+	EMF non-aq	30°C	100%	U T	1970KJa (171) 127
				K=-4.95(-297.9mV)	
Medium: ethylene glycol; K: AgI(s)+e=Ag(s)+I <sup>-</sup> . K=-4.96(-303.2mV,35 C), -4.96(-307.9mV,40 C), -4.98(-314.6mV,45 C)					
Ag+	EMF non-aq	25°C	100%	U T	1970KJa (172) 128
				K=-5.86(-346.8mV)	
Medium: propylene glycol; K: AgI(s)+e=Ag(s)+I <sup>-</sup> . K=-5.79(-319.7mV,5 C), -5.80(-325.8mV,10 C), -5.83(-333.2mV,15 C), -5.84(-339.9mV,20 C)					
Ag+	EMF non-aq	30°C	100%	U T	1970KJa (173) 129
				K=-5.88(-353.5mV)	
Medium: propylene glycol; K: AgI(s)+e=Ag(s)+I <sup>-</sup> . K=-5.90(-360.9mV,35 C), -5.92(-367.6 mV,40 C), -5.94(-374.9mV,45 C)					
Ag+	EMF alc/w	25°C	50%	U T	1970LEb (174) 130
				K=3.143(185.96mV)	
Medium: 50% w/w EtOH/H <sub>2</sub> O; K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup> . K=3.398(194.25mV,15 C), 3.271(190.24mV,20 C), 3.021(181.70mV,30 C)					
Ag+	EMF alc/w	35°C	50%	U	1970LEb (175) 131
				K=2.894(176.92mV)	
Medium: 50% w/w EtOH/H <sub>2</sub> O; K: AgCl(s) + e=Ag(s)+Cl <sup>-</sup>					
Ag+	EMF mixed	25°C	10%	U I	1970MMe (176) 132
				K=0.19(11.5mV)	

Medium: 10% w/w i-propanol/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. 0%: K=0.27(15.9mV). 20%: 0.14(8.0mV). 30%: 0.09(5.5mV). 50%: -0.11(-6.5mV). 60%: -0.30(-18.0mV)

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Ag+ EMF mixed 25°C 10% U I 1970MMe (177) 133  
K=0.19(11.0mV)

Medium: 10% w/w t-butanol/H<sub>2</sub>O. K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=0.14(8.0mV, w=20), 0.07(4.0mV, w=30), -0.03(-1.5mV, w=40), -0.20(-12.0mV, w=50), -0.46(w=60)

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Ag+ EMF alc/w 25°C 10% U I 1970SPa (178) 134  
K=3.623(214.3mV)

Medium: 10% w/w EtOH/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=3.494(206.7mV, w=20), 3.399(201.1mV, w=30), 3.283(194.2mV, w=40)

---

Ag+ EMF alc/w 25°C 52% U I 1970SPa (179) 135  
K=3.087(182.6mV)

Medium: 52% w/w EtOH/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=2.923(172.9mV, w=60), 2.644(156.4mV, w=70), 2.241(132.6mV, w=80)

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Ag+ EMF none 25°C 0.00 U T 1970SPe (180) 136  
K=1.21(71.4mV)

K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>. K=1.44(79.5mV, 5 C), 1.32(75.6mV, 15 C), 1.08(66.1mV, 35 C)

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Ag+ EMF non-aq 98°C 100% U 1969GUa (181) 137  
K(Ag + e=Ag(s))=10.25(0.755V)

Medium: N-methylformamide containing 1 M NaNO<sub>3</sub>

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Ag+ EMF non-aq 25°C 100% U 1969MKe (182) 138  
K(Ag + e=Ag(s))=9.31(551mV)

Medium: pyridine

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Ag+ EMF alc/w 25°C 92% U T 1969PBb (183) 139  
K=1.215(71.85mV)

Medium: 92.4% w/w EtOH/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=1.922(106.07mV, 5 C), 1.742(97.88mV, 10 C), 1.566(89.51mV, 15 C)

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Ag+ EMF alc/w 20°C 92% U T 1969PBb (184) 140  
K=1.387(80.68mV)

Medium: 92.4% w/w EtOH/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=1.038(62.45mV, 30 C), 0.866(52.93mV, 35 C), 0.696(43.27mV, 40 C)

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Ag+ EMF alc/w 45°C 92% U T 1969PBb (185) 141  
K=0.524(33.09mV)

Medium: 92.4% w/w EtOH/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=0.354(22.69mV, 50 C)

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Ag+ EMF mixed 20°C 20% U I 1969TBa (186) 142  
K=3.70(215.1mV)

In 20.1% w/w sulfolane/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>. K=3.40(197.8mV, w=40), 2.92(169.8mV, w=60), 1.81(105.2mV, w=80), -0.94(-54.5mV, w=94.3)

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Ag+ EMF mixed 25°C 20% U I 1969TBa (187) 143  
 $K=3.57(211.4\text{mV})$   
 In 20.1% w/w sulfolane/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>.  $K=3.27(193.7\text{mV}, w=40)$ ,  
 $2.78(164.3\text{mV}, w=60)$ ,  $1.64(97.3\text{mV}, w=80)$ ,  $-1.10(-64.8\text{mV}, w=94.3)$

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Ag+ EMF mixed 30°C 20% U I 1969TBa (188) 144  
 $K=3.45(207.5\text{mV})$   
 In 20.1% w/w sulfolane/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>.  $K=3.14(189.1\text{mV}, w=40)$ ,  
 $2.64(158.5\text{mV}, w=60)$ ,  $1.48(88.9\text{mV}, w=80)$ ,  $-1.27(-76.2\text{mV}, w=94.3)$

---

Ag+ EMF mixed 40°C 20% U I 1969TBa (189) 145  
 $K=3.21(199.5\text{mV})$   
 In 20.1% w/w sulfolane/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>.  $K=2.89(179.4\text{mV}, w=40)$ ,  
 $2.36(146.5\text{mV}, w=60)$

---

Ag+ EMF non-aq 15°C 100% U T 1968BDf (190) 146  
 $K(\text{Ag}+\text{e}=\text{Ag}(\text{s}))=12.272$ , 701.6 mV  
 Medium: NH<sub>2</sub>CHO. At 25 C:  $K=11.668$ , 690.2 mV

---

Ag+ EMF non-aq 5°C 100% U T 1968BDf (191) 147  
 $K(\text{AgCl}(\text{s})+\text{e}=\text{Ag}(\text{s})+\text{Cl})=4.012$   
 Medium: NH<sub>2</sub>CHO.  $K=3.384$  at 25 C

---

Ag+ EMF non-aq 25°C 100% U I 1968ISb (192) 148  
 $K(\text{AgCl}(\text{s})+\text{e}=\text{Ag}(\text{s})+\text{Cl})=-3.11$   
 Medium: Et<sub>2</sub>O.  $K=-3.45$  (Pr<sub>2</sub>O),  $-3.67$  (Bu<sub>2</sub>O),  $-3.89$  ((C<sub>5</sub>H<sub>11</sub>)<sub>2</sub>O)

---

Ag+ EMF mixed 0°C 46% U I 1968JSa (193) 149  
 $K=3.79(205.3\text{mV})$   
 Medium: 46.5% w/w 1,2-dimethoxyethane/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>.  
 $K=3.11(168.8\text{mV}, w=67.0)$

---

Ag+ EMF mixed 35°C 8% U I 1968JSa (194) 150  
 $K=3.42(208.9\text{mV})$   
 Medium: 8.7 % w/w 1,2-dimethoxyethane/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>.  
 $K=3.29(200.9\text{mV}, w=17.8)$ ,  $2.75(168.0\text{mV}, w=46.5)$

---

Ag+ EMF mixed 35°C 67% U 1968JSa (195) 151  
 $K=1.80(109.9\text{mV})$   
 Medium: 67.0% w/w 1,2-dimethoxyethane/H<sub>2</sub>O; K: AgCl(s) + e=Ag(s)+Cl<sup>-</sup>.  
 Also 15 and 25 C

---

Ag+ EMF alc/w 25°C 30% U I 1968MAa (196) 152  
 $K=0.98(58.2\text{mV})$   
 Medium: 30% w/w MeOH/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>.  $K=0.74(43.6\text{mV}, w=60)$ ,  
 $-0.38(-22.6\text{mV}, w=90)$ ,  $-1.77(-104.6\text{mV}, w=99)$ ,  $-2.28(-134.9\text{mV}, w=100)$

---

Ag+ EMF alc/w 45°C 30% U TI 1968MAa (197) 153  
 $K=0.65(41.1\text{mV})$   
 Medium: 30% w/w MeOH/H<sub>2</sub>O; K: AgBr(s)+e=Ag(s)+Br<sup>-</sup>.  $K=0.30(19.1\text{mV}, w=60)$ ,

-0.92(-58.2mV,w=90), -2.32(-146.3mV,w=99), -2.79(-176mV,100%). Also at 35 C

---

Ag+ EMF none 25°C 0.0 U TI 1968MAc (198) 154  
 $K(\text{AgI(s)} + e = \text{Ag(s)} + \text{I}) = -2.574$

K=-2.549(35 C). DH=1.0 kJ mol<sup>-1</sup>. DS= -60 J K<sup>-1</sup> mol<sup>-1</sup>. In 100% MeOH: K=-5.373 (25 C), -5.533(45 C). DH=-14.4, DS=-150. Data also for MeOH/H<sub>2</sub>O mixtures

---

Ag+ EMF non-aq 25°C 100% U 1968MMe (199) 155  
 $K(\text{AgBr(s)} + e = \text{Ag(s)} + \text{Br}) = 1.635$

Medium: H<sub>2</sub>NCHO

---

Ag+ EMF none 10°C 0.0 U T 1968Mnc (200) 156  
 $K = 17.04, 478.7 \text{ mV}$

K:  $\text{Ag}_2\text{C}_{204}(\text{s}) + 2e = 2\text{Ag(s)} + \text{C}_{204}--$ . At 25 C: K=15.71, 464.7 mV; 50 C: K=13.76, 441.2 mV

---

Ag+ EMF none 25°C 0.00 U T 1968NMa (201) 157  
 $K = 17.25(340.2\text{mV})$

K:  $\text{Ag}_3\text{P}_4(\text{s}) + 3e = 3\text{Ag(s)} + \text{P}_4---$ . K=19.65(367.9mV,10 C), 18.77(357.7mV,15 C), 18.04(349.7mV,20 C), 16.39(328.7mV,30 C), 15.61(35 C), 14.78(306.1mV,40 C)

---

Ag+ EMF mixed 25°C 9% U 1968RSb (202) 158  
 $E_0 = a + bT + cT^2$  (constants a,b and c given for w=9.0,18.2,47.2,73.0 and 89.0 in system w/w % tetrahydrofuran/H<sub>2</sub>O at 0-35 C)

---

Ag+ EMF oth/un 25°C 100% U 1968SPe (203) 159  
 $K(\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}) = 2.536$

Medium: Me<sub>2</sub>NCOMe

---

Ag+ EMF alc/w 25°C 100% U 1968SSb (204) 160  
 $K = -2.31(-136.8\text{mV})$

Medium: MeOH; K:  $\text{AgBr(s)} + e = \text{Ag(s)} + \text{Br}-$

---

Ag+ EMF non-aq 25°C 100% U 1968SSb (205) 161  
 $K = -5.06(-299.3\text{mV})$

Medium: MeOH; K:  $\text{AgI(s)} + e = \text{Ag(s)} + \text{I}-$

---

Ag+ EMF alc/w 25°C 100% U I 1967ALa (206) 162  
 $K(\text{AgBr(s)} + e = \text{Ag(s)} + \text{Br}) = -2.345$

Medium MeOH. K=-0.130, -7.7 mV(87.7% MeOH)

---

Ag+ EMF alc/w 25°C 100% U I 1967ALa (207) 163  
 $K(\text{AgI(s)} + e = \text{Ag(s)} + \text{I}) = -5.369$

Medium: MeOH. K=-3.187, -188.5 mV (87.7% MeOH)

---

Ag+ EMF non-aq 25°C 100% U T H 1967ANc (208) 164  
 $K(\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}) = 3.357$

Medium: H<sub>2</sub>NCHO. K=2.982(40 C;185.3 mV), K=2.853(45 C;180.1 mV), K=2.634(55 C;171.5 mV). DH=-192.7 kJ mol<sup>-1</sup>(25 C), DS=-378.3 J K<sup>-1</sup> mol<sup>-1</sup>

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Ag+ kin NaClO4 25°C 4.0M U M 1967HSc (209) 165  
 $K=1.64$   
 Medium: HClO4.  $K: \text{Co(II)} + \text{Ag(II)} = \text{Co(III)} + \text{Ag(I)}$

---

Ag+ EMF NaClO4 25°C 3.0M U I 1967KRb (210) 166  
 $K(\text{Ag} + e = \text{Ag(s)}) = 13.106, 775.3 \text{ mV}$   
 At  $I=2.0$ :  $K=13.253, 784.0 \text{ mV}$ ;  $I=1.0$ :  $K=13.395, 792.4 \text{ mV}$

---

Ag+ EMF NaClO4 25°C 3.0M U I 1967KRb (211) 167  
 $K(\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}) = 3.442$   
 $I=2.0$ :  $K=3.728, 220.5 \text{ mV}$ ;  $I=1.0$ :  $K=3.929, 232.4 \text{ mV}$

---

Ag+ EMF non-aq 5°C 100% U TI 1967SKc (212) 168  
 $K(\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}) = 0.834$   
 Medium: glycol.  $K=0.193(35 \text{ C}; 11.8 \text{ mV})$ ,  $K=-0.006(45 \text{ C}; -0.4 \text{ mV})$   
 Also values for water glycol mixtures

---

Ag+ EMF non-aq 25°C 100% U 1966ANc (213) 169  
 $K(\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}) = 3.357$   
 Medium: H2NCHO

---

Ag+ gl mixed 25°C 10% U I 1966BFa (214) 170  
 $K(\text{AgBr(s)} + e = \text{Ag(s)} + \text{Br}) = 1.025$   
 Medium : 10% MeCO2H.  $K=0.652, -38.55 \text{ mV}(60\%)$

---

Ag+ EMF mixed 25°C 10% U I 1966BFa (215) 171  
 $K(\text{AgI(s)} + e = \text{Ag(s)} + \text{I}) = -2.721$   
 Medium: 10% MeCO2H.  $K=-4.166, -246.45 \text{ mV}(60\%)$ . Also data for 20% and 40%

---

Ag+ EMF non-aq 40°C 100% U I 1966DKb (216) 172  
 $K(\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}) = 2.699$   
 Medium 30% dioxan/MeCONHMe.  $K=2.260(43\%), 0.439(74\%)$

---

Ag+ EMF non-aq 35°C 100% U T 1965DZa (217) 173  
 $K(\text{AgCl(s)} + e = \text{Ag(s)} + \text{Cl}^-) = 3.465$   
 Medium: MeCONHMe.  $K=3.055(50 \text{ C}; 194.56\text{mV})$   $K=2.914(55 \text{ C}; 189.72\text{mV})$   $K=2.777(60 \text{ C}; 183.57\text{mV})$   $K=2.525(70 \text{ C}; 171.94\text{mV})$

---

Ag+ EMF diox/w 25°C 20% U I 1965FTa (218) 174  
 $K(\text{AgBr(s)} + e = \text{Ag(s)} + \text{Br}) = 1.013$   
 Medium: 20% dioxan.  $K=0.538, 31.83 \text{ mV} (45\%)$

---

Ag+ EMF diox/w 25°C 20% U I 1965FTa (219) 175  
 $K(\text{AgI(s)} + e = \text{Ag(s)} + \text{I}) = -2.559$   
 Medium: 20% dioxan.  $K=-2.709, -160.25 \text{ mV} (45\%)$

---

Ag+ EMF none 20°C 0.0 U T 1965KHa (220) 176  
 $K(\text{AgI(s)} + e = \text{Ag(s)} + \text{I}) = 2.587$   
 $K=-2.548(75 \text{ C}; -176.0 \text{ mV})$ ,  $K=-2.61(100 \text{ C}; -192.6 \text{ mV})$ ,  $K=-2.690((125 \text{ C}; -212.5\text{C}))$   
 $K=-2.829(150 \text{ C}; -237.5\text{mV})$ ,  $K=-3.307(175 \text{ C}; -270.0\text{mV})$ ,  $K=-3.296(200\text{C}; -3.09.4\text{mV})$

Ag+	EMF non-aq	263°C	100%	U T	1965KUb	(221)	177
					K=12.02, 639 mV		
	Medium:	molten Na0.50.5NO3.	K: 2Ag+ + O-- = Ag(s) + 0.5O2(g).		K=9.67, 612.8mV		
		at 366 C					
Ag+	EMF alc/w	25°C	10%	U I	1965PBb	(222)	178
					K(AgCl(s)+e=Ag(s)+Cl)=3.643		
	Medium;	10% MeOH/H2O.	K=3.433(30%;203.1 mV), K=3.327(40%;196.8 mV),				
			K=3.073(60%;181.8 mV), K=2.845(70%;168.3 mV), K=2.522(80%;149.2 mV)				
Ag+	oth none	0°C	0.0	M T	1964ACb	(223)	179
					K(AgCl(s)+e=Ag(s)+Cl)=4.367		
					K=3.759, 222.38 mV(25 C), 2.551, 178.74 mV(80 C), 2.143, 158.63(100 C)		
					Many other values for intermediate temperatures.		
Ag+	EMF oth/un	5°C	?	U T	1964GBa	(224)	180
					K(AgCl(s)+e=Ag(s)+Cl)=4.082		
	Medium:	D2O.	K=3.836, 219.31mV(15 C); K=3.595, 212.66 mV(25 C);				
			K=3.358, 205.32 mV(35 C); K=3.126, 197.33mV(45 C); K=3.012, 193.10mV(50 C)				
Ag+	EMF none	0°C	0.0	U T	1964HRb	(225)	181
					K(AgI(s)+e=Ag(s)+I)=-2.701		
					K=-2.614(15 C;149.42 mV), K=-2.593(20 C;-150.8 mV), K=-2.577(25 C;-152.4 mV)		
					-2.561(30 C;-154.05 mV), K=-2.541(40 C;-157.9 mV), K=-2.530(50 C;-162.2 mV)		
Ag+	EMF none	25°C	0.0	U T	1964LSb	(226)	182
					K(AgCl(s)+e=Ag(s)+Cl)=3.753		
					K=2.985, 197.3 mV(60 C); 0.731, 65.0 mV(175 C); -0.133, -13.1 mV(225 C)		
Ag+	EMF oth/un	25°C	0.0	U T	1964LSb	(227)	183
					K(AgCl(s)+e=Ag(s)+Cl)=3.540		
	Medium:	D2O.	K=1.406, 111.1 mV(125 C); K=0.912, 76.6mV(150 C);				
			K=-0.029, -2.7 mV(200 C); K=-0.477, -47.1mV(225 C)				
Ag+	EMF none	25°C	0.0	M	1964RPa	(228)	184
					K=9.99, 147.8 mV		
					K: Ag4Fe((CN)6(s) + 4e = 4Ag(s) + Fe(CN)6----		
Ag+	EMF non-aq	25°C	100%	U I	1964SSg	(229)	185
					K(AgCl(s)+e=Ag(s)+Cl)=-1.22		
	Medium:	70% dioxan/MeOH.	K=-1.89(54%;-112mV), K=-2.50(50%;-148mV),				
			K=-2.74(45%;-1.62mV), K=-3.35(40%;-198mV)				
Ag+	EMF none	25°C	0.0	M I	1963CLa	(230)	186
					K=-9.20, -272 mV		
					K: Ag2S(s) + H + 2e = 2Ag(s) + SH-. In 10% ethanoic acid: K(AgCl(s)+e=Ag(s)+Cl)=3.558, 210.5 mV; in 60%: K=1.885, 111.5 mV		
Ag+	EMF alc/w	25°C	10%	U I	1963FWa	(231)	187

K(AgBr(s)+e=Ag(s)+Br)=1.125									
Medium: 10% MeOH. In 43% MeOH: K=0.947, 56.0 mV									
Ag+	EMF alc/w	25°C	10%	U	I		1963FWa	(232)	188
K(AgI(s)+e=Ag(s)+I)=-2.601									
Medium: 10% MeOH. K=-2.517, -148.9 mV (43%)									
Ag+	EMF none	25°C	0.0	U			1962GPa	(233)	189
K=5.79(342.3 mV)									
K: 0.5Ag <sub>2</sub> O(s)+0.5H <sub>2</sub> O+e=Ag(s)+OH									
Ag+	EMF none	25°C	0.0	U	H		1962GPa	(234)	190
K=8.27(244.7 mV)									
K: Ag <sub>2</sub> O(s)+Hg(liq)=2Ag(s)+HgO(s). DS(K)=-38.8 J K <sup>-1</sup> mol <sup>-1</sup>									
Ag+	EMF none	25°C	0.0	U	T		1962HRa	(235)	191
K=1.201(71.06 mV)									
K: AgBr(s)+e=Ag(s)+Br. K=1.500(0 C, 81.28 mV), 1.384(10 C, 77.73 mV), 1.264(20 C, 73.49 mV), 1.140(30 C, 68.56 mV), 1.016(40 C, 63.10 mV), 0.890(50 C, 57.04 mV)									
Ag+	EMF none	25°C	0.0	U			1961DIa	(236)	192
K=5.72(338.4 mV)									
K: 0.5Ag <sub>2</sub> O(s)+0.5H <sub>2</sub> O+e=Ag(s)+OH									
Ag+	EMF non-aq	40°C	100%	U			1961DSc	(237)	193
K=3.31(205.7 mV)									
Medium: CH <sub>3</sub> CONHCH <sub>3</sub> . K: AgCl(s)+e=Ag(s)+Cl									
Ag+	EMF non-aq	25°C	100%	U			1961SKd	(238)	194
K=5.69(336.6 mV)									
Medium: CH <sub>3</sub> COOH. K: AgCl(s)+e=Ag(s)+Cl									
Ag+	EMF none	25°C	0.0	U	T		1960GSb	(239)	195
K=3.76(222.33 mV)									
K: AgCl(s)+e=Ag(s)+Cl. K=2.98(60 C; 196.8 mV), 2.35(90 C; 169.6 mV), 1.68(125 C; 133.0 mV), 1.23(150 C; 103.2 mV), 0.37(200 C; 34.8 mV), -0.52(250 C; -54 mV)									
Ag+	EMF none	35°C	0.0	U			1960JPb	(240)	196
K=14.62(446.8 mV)									
K: Ag <sub>2</sub> CrO <sub>4</sub> (s)+2e=2Ag(s)+CrO <sub>4</sub>									
Ag+	EMF alc/w	25°C	100%	U			1960LWb	(241)	197
K=-2.32(-137.5 mV)									
Medium: MeOH. K: AgBr(s)+e=Ag(s)+Br									
Ag+	EMF alc/w	25°C	100%	U			1960NUa	(242)	198
K=-3.28(-194.0 mV)									
Medium: EtOH. K: AgBr(s)+e=Ag(s)+Br. M scale K=-3.14(-186.0 mV) m scale									
Ag+	EMF none	25°C	0.0	U	T		1960TGa	(243)	199

K=1.21(71.6 mV)  
 K:  $\text{AgBr(s)} + \text{e} = \text{Ag(s)} + \text{Br}$ . K=0.76(60 C;50.1 mV), 0.35(90 C;25.1 mV), -0.06(125 C; -4.8 mV), -0.37(150 C;-31.2 mV), -0.69(175 C;-61.2 mV), -1.01(200 C;-95.1 mV)

-----  
 Ag+ EMF none 25°C 0.0 U H 1957HCa (244) 200  
 K=8.25(244.0 mV)

K:  $\text{Ag2O(s)} + \text{Hg(l)} = 2\text{Ag(s)} + \text{HgO(s)}$ . DH(K)=-58.5 kJ mol<sup>-1</sup>, DS=-38.2 J K<sup>-1</sup> mol<sup>-1</sup>

-----  
 Ag+ EMF none 25°C 0.0 U T 1954BBc (245) 201  
 K=3.759(222.34 mV)

K:  $\text{AgCl(s)} + \text{e} = \text{Ag(s)} + \text{Cl}$ . K=4.365(0 C;236.55 mV), 4.119(10 C;231.42 mV), 3.878 (20 C;225.57 mV), 3.642(30 C;219.04 mV), 3.413(40 C;212.08 mV), 2.260(95 C;165)

-----  
 Ag+ EMF none 25°C 0.0 U T 1953BBc (246) 202  
 K(Ag+e=Ag(s))=13.514(799.4 mV)

K=14.837(5 C;818.8 mV), 14.154(15 C;809.2 mV), 12.912(35 C;789.4 mV), 12.346 (45 C;779.3 mV). K(0.5Ag2O+H+e=Ag(s)+0.5H2O)=19.83(1173 mV)

-----  
 Ag+ EMF none 25°C 0.0 U T 1953BBc (247) 203  
 K=1.205(71.30 mV)

K:  $\text{AgBr(s)} + \text{e} = \text{Ag(s)} + \text{Br}$ . K=1.447(5 C;79.84 mV), 1.389(10 C;78.04 mV), 1.330(15 C ;76.02 mV), 1.268(20 C;73.74 mV), 1.143(30 C;68.73 mV), 1.015(40 C,63.09 mV)

-----  
 Ag+ EMF none 25°C 0.0 U T 1953BBc (248) 204  
 K=-2.57(-152.1 mV)

K:  $\text{AgI(s)} + \text{e} = \text{Ag(s)} + \text{I}$ . K=-2.66(5 C;-146.9 mV), -2.608(15 C;-149.1 mV), -2.588 (20 C;-150.5 mV), -2.557(30 C;-153.8 mV), -2.540(40 C,-157.8 mV)

-----  
 Ag+ EMF none 25°C 0.0 U 1952SUa (249) 205  
 K=4.96(293.3 mV)

K:  $\text{AgN3(s)} + \text{e} = \text{Ag(s)} + \text{N3}$

-----  
 Ag+ EMF none 25°C 0.0 U T 1951GCa (250) 206  
 K=-1.22(-36.2 mV)

K:  $\text{Ag2S(s)} + 2\text{H} + 2\text{e} = 2\text{Ag(s)} + \text{H2S(g)}$ . K=-1.38(5 C,-38.2 mV), -1.08(45 C,-34.0 mV).  
 K(Ag2S(s)+2e=2Ag(s)+S)=-24.1(-712.5 mV)

-----  
 Ag+ EMF none 25°C 0.0 U 1908LPa (251) 207  
 K=19.82(1172 mV)

K:  $0.5\text{Ag2O(s)} + \text{H} + \text{e} = \text{Ag(s)} + 0.5\text{H2O}$

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AsH3 L Arsine CAS 7782-42-1 (1860)  
 Arsine;

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

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 Ag+ ISE non-aq ? 100% C B2=16.66 1978GRa (1042) 208  
 Medium: liquid anhydrous HF

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

Arsenate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	sol	oth/un	20°C	dil	U				1956CHd (1118)	209
								Kso(Ag3L)=-19.95		

Ag+	sol	oth/un	23°C	var	U				1942TLa (1119)	210
								Kso(Ag3L)=-21.97		

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B04H4-		HL		Borate				CAS 10043-35-3 (991)		
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Borate; B(OH)4-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	NaClO4	25°C	3.00M	C			K1=0.45 K(AgHB2(s)+H=Ag+2HB)=4.5 K'=-1.07	1970HSA (1286)	211

AgHB2=0.5Ag2B4O7(H2O)x. K': 0.5AgHB2(s)+0.5H2O=0.5Ag2O(s)+HB

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	sol	none	25°C	0.0	C	IH		B2=10.6 Kso(AgBr)=-12.28	2003WAA (1472)	212

Method: analysis of literature data. DH(Kso)=85.4 kJ mol<sup>-1</sup>. Also Kso=-15.10 (methanol), -13.7 (acetonitrile), -10.8 (DMSO). B2=12.2 (DMSO).

Ag+	con	non-aq	25°C	100%	C			K1=>21	1990SAb (1473)	213
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Medium: propylene carbonate.

Ag+	ISE	non-aq	25°C	100%	U	IH		K1=7.62 B2=10.96	1987JPa (1474)	214
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Medium: tetrahydrothiophene, 0.1M Bu4NBF4

Ag+	ISE	non-aq	25°C	100%	C	H		K1=5.03 B2=8.44 K3=2.16	1986AIb (1475)	215
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Medium: Pyridine, 0.1 M Et4NClO4; DH(K1)=-3.3, DH(K2)=6.7, DH(K3)=-1.2 kJ m<sup>-1</sup>

Ag+	ISE	non-aq	25°C	100%	C	H		K1=5.03 B2=8.44 B3=10.59 B(2Ag+Br)=6.68	1986AIb (1476)	216
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Medium: DMSO, 0.1 M NH4ClO4. DH(K1)=-3.3; DH(B2)=3.3 kJ mol<sup>-1</sup>; DH(B3)=2.1; DH(Ag2Br)=-1.6

Ag+	ISE	KNO3	0°C	1.00M	U	M		K1=5.94 B2=8.56	1985MMc (1477)	217
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mixed complexes with thiocetamide B(AgLA)= 9.82; with thiourea B(AgLA)=8.76; B(AgLA2)=13.69 with thiourea and thioacetamide B(AgLAB)=13.47

Ag+ ISE KNO3 25°C 1.00M U T HM B2=11.6 1985MMd (1478) 218  
DH(B2)=-37.1 kJ mol<sup>-1</sup>; DS(B2)=11.6 J K<sup>-1</sup> mol<sup>-1</sup>.

Ternary complexes with: thiourea, thiosulphate, iodide, chloride

-----  
Ag+ ISE non-aq 25°C 100% U I 1981CLa (1479) 219

B2eff=25.5

Kso=-23.5

Medium: methylisobutylketone. Data available for water equilibrated MIBK

-----  
Ag+ ISE non-aq 87°C 100% U K1=6.55 B2=7.83 1981GBb (1480) 220  
B3=8.32

Medium: fused acetamide

-----  
Ag+ EMF KNO3 25°C 0.0 C T H 1980JPa (1481) 221

Kso(AgBr)=-12.305

Method: Ag/AgBr,Br<sup>-</sup> electrode. Data for 15-55 C. Molal scale: Kso=-12.303

DH(Kso)=84.15 kJ mol<sup>-1</sup>, DS(Kso)=45.1 J K<sup>-1</sup> mol<sup>-1</sup>.

-----  
Ag+ EMF KNO3 45°C 0.0 C I 1978JPa (1482) 222

Kso(AgBr)=-11.39

Method: AgBr/Br<sup>-</sup> electrode. Data extrapolated to I=0 from 0.005-0.10 M  
KNO3/NaNO3.

-----  
Ag+ cal NaClO4 25°C 5.0M C H 1977ATb (1483) 223

Medium: 0.1 M HClO4/4.9 M NaClO4. DH(B3)=-54.6 kJ mol<sup>-1</sup>, DS(B3)=  
-9 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B4)=-79.6, DS(B4)=-91; DH(Kso(AgBr))=80.0, DS=26.

-----  
Ag+ ISE none 25°C 0.0 U K1=5.80 B2=7.38 1975CAa (1484) 224  
B3=8.23

-----  
Ag+ EMF NaNO3 25°C 4.6M C T H B2=7.47 1975PPc (1485) 225

B3=7.88

B4=8.52

Method: Ag/Ag<sup>+</sup> electrode. Data for 25-70 C. Medium: 4.6 m KBr/NaNO3.

DH(B2)=-43.9 kJ mol<sup>-1</sup>, DH(B3)=-54, DH(B4)=-67.

-----  
Ag+ ISE non-aq 25°C 100% U B2=13.22 1975SAb (1486) 226

B3=15.29

Kso=-12.50

Medium: propylene carbonate/0.56 M tetrahydrothiophene

-----  
Ag+ ISE non-aq 25°C 100% U I B2=11.06 1975SAb (1487) 227

B3=11.97

Kso=-10.02

Medium: propylene carbonate/0.56 M tetrahydrothiophene

In propionitrile/0.10 M THT, B2=13.0, B3=15.0, Kso=-10.8

-----  
Ag+ ISE non-aq 25°C 100% U I B2=16.4 1975SAc (1488) 228

Kso=-15.6

B2=13.6 in TMSO

Medium: PC/TMSO, 1.23 M. In dimethylsulphite: Kso=-18.3, B2=17.1.  
In ethylene sulphite: B2=20.1, Kso=-20.0. TMSO=Tetramethylene sulfoxide

---

Ag+ EMF oth/un 50°C 10% U IH 1974DGB (1489) 229  
Kso=-13.55

Medium: 10% NaNO<sub>3</sub>-Ca(NO<sub>3</sub>)<sub>2</sub>(H<sub>2</sub>O)<sub>4</sub>. DH(Kso)=77.5 kJ mol<sup>-1</sup>. 0%: Kso=-13.47,  
DH(Kso)=76.4; 20%: Kso=-13.52, DH(Kso)=81.30

---

Ag+ EMF non-aq 25°C 100% U 1974FCa (1490) 230  
L(AgL(s)+LiL=LiAgL<sub>2</sub>)=1.0

Medium: THF. Method: current-voltage studied

---

Ag+ sol none 25°C 0.0 U T 1974GHb (1491) 231  
Kso=-12.31

Kso=-11.85(35 C), -11.42(45 C)

---

Ag+ EMF non-aq 30°C 100% U K1=3.95 B2=5.45 1974JAc (1492) 232  
Medium: pyridine, 0.2 M LiClO<sub>4</sub> m units

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Ag+ dis R<sub>4</sub>N.X 70°C ? U K1=3.70 B2=6.70 1974NGc (1493) 233  
K3=1.04  
K4=0

Medium: NH<sub>4</sub>NO<sub>3</sub>(H<sub>2</sub>O)<sub>2</sub>; K values: in m units

---

Ag+ ISE non-aq 25°C 100% U I B2=17.65 1974SAb (1494) 234  
B3=18.89  
Kso=-16.32

Medium: 3-Me-2-oxazolidone, 0.1 M Pr<sub>4</sub>NClO<sub>4</sub>

---

Ag+ ISE mixed 25°C 80% U I B2=12.98 1974SAc (1495) 235  
B3=14.86  
Kso=-14.79

Medium: 80% acetone/H<sub>2</sub>O. In 91.2% acetone, B2=16.20, B3=15.44, Kso=-16.38  
In 98.5% acetone, Kso=-18.67, B2=19.92, B3=21.34

---

Ag+ sol alc/w 25°C 9.5% U I K2=1.11 1973ABc (1496) 236  
K3=0.60  
Kso=-12.69

In w/w MeOH/H<sub>2</sub>O. K2=0.45, K3=2.10, Kso=-12.46(0%); K2=1.88, K3=0.95, Kso=-12.84  
(19.8%); K2=1.76, K3=1.00, Kso=-12.99(34.5%); K2=2.12, K3=0.84, Kso=-13.5(54.2%)

---

Ag+ sol alc/w 25°C 9.7% U I K2=1.74 1973ABc (1497) 237  
K3=0.70  
Kso=-12.52

In w/w EtOH/H<sub>2</sub>O; K2=1.87, K3=0.69, Kso=-12.80(19.9%); K2=2.43, K3=-0.14, Kso=-  
-13,00(34.5%) etc. Data also in acetone/H<sub>2</sub>O, dioxan/H<sub>2</sub>O

---

Ag+ sol mixed 25°C 9.6% U I K2=1.79 1973ABc (1498) 238  
K3=0.64  
Kso=-12.52

In w/w acetone/H<sub>2</sub>O. K<sub>2</sub>=2.03, K<sub>3</sub>=0.75, K<sub>so</sub>=-12.99(19.8%); K<sub>2</sub>=2.73, K<sub>3</sub>=0.40, K<sub>so</sub>=-13.23(34.4%); K<sub>2</sub>=3.12, K<sub>3</sub>=0.06, K<sub>so</sub>=-13.47(42.1%); K<sub>2</sub>=3.72, K<sub>3</sub>=-0.52(54.2%)

---

Ag+ EMF oth/un 87°C 100% U 1973BMc (1499) 239  
K<sub>so</sub>=-7.92

Medium: CH<sub>3</sub>COONa. K<sub>so</sub>:in m units

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Ag+ ISE none 25°C 0.0 U 1973BRa (1500) 240  
K<sub>so</sub>=-12.2

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Ag+ ISE non-aq 25°C 100% U B<sub>2</sub>=14.1 1973CCa (1501) 241  
K<sub>so</sub>=-13.3

Medium: MeCN, 0 corr, m units

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Ag+ ISE non-aq 25°C 100% U B<sub>2</sub>=13.8 1973CKa (1502) 242  
K<sub>so</sub>=-13.7

Medium: MeCN, 0 corr

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Ag+ ISE non-aq 350°C 100% U T K<sub>1</sub>=3.27 1973GBb (1503) 243  
Medium: (Na,Ba)NO<sub>3</sub>. K<sub>1</sub>=3.11 to 3.17(375 C), 2.91 to 2.96(400 C) unit:mol/mol solvent

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Ag+ sol non-aq 163°C 100% U T K<sub>1</sub>=4.26 B<sub>2</sub>=7.95 1973GDa (1504) 244  
K<sub>so</sub>=-11.01

Medium: (K,Ca)NO<sub>3</sub>. K<sub>1</sub>=4.05, K<sub>2</sub>=3.61, K<sub>so</sub>=-10.64(183 C); K<sub>1</sub>=3.95, K<sub>2</sub>=3.27, K<sub>so</sub>=-10.10(198 C) x units

---

Ag+ ISE alc/w 25°C 10% U I 1973KPa (1505) 245  
K<sub>so</sub>=-12.5

In 10% v/v MeOH/H<sub>2</sub>O. K<sub>so</sub>=-12.32(0%), -13.0(40%), -13.4(60%), -14.5(90%);  
Also in EtOH, PrOH, i-PrOH, acetone, DMF

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Ag+ ISE mixed 25°C 10% U I 1973KPa (1506) 246  
K<sub>so</sub>=-12.2

In v/v DMF/H<sub>2</sub>O. K<sub>so</sub>=-12.5(v=40), -12.7(v=60). In Acetone/H<sub>2</sub>O: K<sub>so</sub>=-12.4(10%)  
-12.3(20%), -11.9(30%), -12.3(40%)

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Ag+ ISE diox/w 20°C 50% U I 1973NEa (1507) 247  
K<sub>so</sub>=-13.77

Medium: 50% v/v dioxan/H<sub>2</sub>O, 0.001 M KBr. K<sub>so</sub>=-15.02(70%), -15.89(80%),  
-16.92(90%)

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Ag+ ISE non-aq 25°C 100% U B<sub>2</sub>=16.24 1973SSg (1508) 248  
B<sub>3</sub>=17.63  
K<sub>so</sub>=-14.95

Medium: EtCN, 0.1 M Pr<sub>4</sub>NClO<sub>4</sub>. With 0.95 M SO<sub>2</sub>: B<sub>2</sub>=9.93, K<sub>so</sub>=-11.40;  
with 3.3 M SO<sub>2</sub>: B<sub>2</sub>=7.87, K<sub>so</sub>=-10.25

---

Ag+ ISE non-aq 270°C 100% U T 1973TTa (1509) 249  
K<sub>so</sub>=-7.58



Medium: LiNO<sub>3</sub>. K<sub>so</sub>=-7.13(300 C), -6.58(320 C), -6.30(340 C) m units  
In KNO<sub>3</sub>: K<sub>so</sub>=-5.20(350 C), -4.99(370 C), -4.69(395 C). Other melts also

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Ag+ ISE oth/un 50°C ? U T 1972BNa (1510) 250  
K<sub>so</sub>=-13.57

Medium: Ca(NO<sub>3</sub>)<sub>2</sub>(H<sub>2</sub>O)<sub>4</sub>. K<sub>so</sub>=-13.21(60 C), -12.97(65 C), -12.76(70 C),  
-12.44(80 C)

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Ag+ sol non-aq 25°C 100% U B<sub>2</sub>=11.14 1972GSd (1511) 251  
B<sub>3</sub>=12.0  
B(Ag<sub>2</sub>L<sub>3</sub>)=20.2  
B(Ag<sub>3</sub>L<sub>4</sub>)=30.4  
B(Ag<sub>2</sub>L)=8.14

Medium: DMSO, 0.5 M KNO<sub>3</sub>

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Ag+ ISE mixed ? 2.7% U I 1972KPa (1512) 252  
K<sub>so</sub>=-12.4

In acetone/H<sub>2</sub>O. K<sub>so</sub>=-12.6(5.83%), -12.6(9.83%), -12.1(14.2%). In DMF/H<sub>2</sub>O:  
K<sub>so</sub>=-12.36(0%), -12.22(2.52%), -12.50(13.3%), -12.70(25.9%)

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Ag+ EMF non-aq 30°C 100% U B<sub>2</sub>=12.1 1971BPb (1513) 253  
K<sub>so</sub>=-11.0

Medium: N-methyl-2-pyrrolidone, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>. Method: current-voltage

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Ag+ EMF non-aq 375°C 100% U T K<sub>1</sub>=3.17 B<sub>2</sub>=5.85 1971GBb (1514) 254  
Medium: (Na,Ba)NO<sub>3</sub> eutectic. K<sub>1</sub>=3.28(350 C), 2.96(400 C); K<sub>2</sub>=2.53(400 C)  
units mol/mol solvent

---

Ag+ EMF non-aq 350°C 100% U T 1971GJa (1515) 255  
K<sub>so</sub>=-5.67

Medium: (Na,Ba)NO<sub>3</sub>. m units; log K<sub>so</sub>=3.535-5739/T at 350-425 C

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Ag+ EMF oth/un 130°C 100% U T K<sub>1</sub>=1.17 1971KIa (1516) 256  
Medium: EtNH<sub>3</sub>Cl. K<sub>1</sub>=1.10(150 C), 1.02(180 C), 0.93(200 C) unit:mol/mol solv.

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Ag+ sol alc/w 20°C 50% U I 1971NEa (1517) 257  
K<sub>so</sub>=-13.00

In 50% w/w MeOH/H<sub>2</sub>O. K<sub>so</sub>=-13.48(70%), -13.90(80%), -14.34(90%), -15.06(100%)

In PrOH/H<sub>2</sub>O: K<sub>so</sub>=-12.96(50%), -13.60(70%), -14.20(80%), -14.96(90%), -16.24(100%)

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Ag+ EMF non-aq 20°C 100% U B<sub>2</sub>=12.0 1970DMa (1518) 258  
B<sub>12</sub>=10.9  
K<sub>so</sub>=-10.9

Medium: DMSO, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>

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Ag+ sol R<sub>4</sub>N.X 55°C ? U T K<sub>1</sub>=3.70 1969BBe (1519) 259  
K<sub>so</sub>=-10.30

Medium: NH<sub>4</sub>NO<sub>3</sub>(H<sub>2</sub>O)<sub>2</sub>. K<sub>1</sub>=3.58, K<sub>so</sub>=-10.00(70 C); K<sub>1</sub>=3.52, K<sub>so</sub>=-9.60(85 C);  
K<sub>1</sub> and K<sub>so</sub>:in m units

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Ag+	ISE non-aq 30°C 100%	U I	B2=20.2 Kso=-18.9	1969BBg (1520)	260
Medium: sulfolane, 0 corr. B2=19.7, Kso=-18.4(I=0.1)					
Ag+	ISE non-aq 22°C 100%	U	B2=21.2 Kso=-20.5	1969CLa (1521)	261
Medium: propene carbonate, 0.1 M Et4NClO4					
Ag+	ISE NaNO3 70°C 1.0M	U T	B3=6.84 Kso=-9.81	1969GUa (1522)	262
B3=6.53(80 C),6.46(90 C);Kso=-10.65(50 C),-10.21(60 C),-9.47(80 C),-9.22(90 C). Method: Ag electrode					
Ag+	ISE non-aq 98°C 100%	U	B2=7.5 B3=8.97 Kso=-9.39	1969GUa (1523)	263
In N-methylformamide, 1 M NaNO3					
Ag+	ISE non-aq 25°C 100%	U	K(AgL+HL)=3.9	1969MLa (1524)	264
Medium: pyridine. Other constants also reported					
Ag+	EMF non-aq 148°C 100%	U T	Kso=-9.77	1969SMh (1525)	265
Medium: (Li,K)NO3. Kso=-9.73(150 C), -9.14(172 C), -8.58(194.5 C), -8.19(211.5 C) m units					
Ag+	ISE non-aq 25°C 100%	U	B2=17.53 Kso=-14.49	1969VKa (1526)	266
Medium: N-methyl-2-pyrrolidone					
Ag+	ISE non-aq 20°C 100%	U	B2=19.7 Kso=-19.7	1968BBb (1527)	267
Medium: CH3NO2					
Ag+	ISE non-aq 30°C 100%	U	B2=19.32 Kso=-18.18	1968DLa (1528)	268
Medium:sulpholan, 0.1 M Et4NClO4					
Ag+	sol oth/un 56°C 100%	U T	K1=3.74 K3=1.32 Kso=-10.31	B2=6.58 1968GAa (1529)	269
Medium:NH4NO3(H2O)2. At 70C: Kso=-10.11,K1=3.72,K2=2.88,K3=1.18 87 C: Kso=-9.67,K1=3.65,K2=2.71,K3=0.87					
Ag+	ISE non-aq 350°C 100%	U H	Kso=-5.40	1968GSf (1530)	270
Medium:(K/Ba)NO3 eutectic. DHso=100.5 kJ mol-1, m units					

Ag+ sol non-aq 24°C 100% U 1968LAc (1531) 271  
 B(Ag2L)=8.23  
 Medium: DMSO, 0.5 M Et4NClO4

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Ag+ sol non-aq 190°C 100% U T H K1=3.06 B2=5.72 1968MGb (1532) 272  
 Kso=-8.36  
 Medium: molten (Li/K)NO3. Kso=-9.28(150 C), -8.83(169 C); K1=3.31(150 C),  
 3.20(169 C); K2=2.91(150 C), 2.82(169 C). DH(K1)=DH(K2)=-5.2 kJ mol<sup>-1</sup>

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Ag+ ISE non-aq 25°C 100% U I B2=11.4 1967AKa (1533) 273  
 Kso=-10.6  
 Medium: DMSO. Kso=-15.2 in MeOH; Kso=-12.9, B2=13.7 in MeCN; Kso=-11.4 in HCONH2  
 Kso=-15.0, B2=16.6 in Me2NCOME; Kso=-12.3, B2=16.5 in (Me2N)3PO

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Ag+ ISE oth/un 25°C 1.0M U 1967BPf (1534) 274  
 B4=8.33

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Ag+ ISE non-aq 257°C 100% U T H 1967FBb (1535) 275  
 Kso=-8.46  
 Medium: molten (Li/Na)ClO4. Kso=-9.43(217 C); -8.65(250 C). DHso=110 kJ mol<sup>-1</sup>

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Ag+ ISE non-aq 546°C 100% U K1=2.20 B2=4.10 1967GUb (1536) 276  
 K(Ag2L)=1.9  
 Medium: (Li/K)SO4 eutectic, 412-680 C. x units

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Ag+ ISE non-aq 85°C 100% U T B2=10.15 1967RPc (1537) 277  
 Kso=-9.21  
 Medium: DMSO, 0.1 M NH4NO3. Kso=-10.04(25 C), -9.74(45 C), -9.35(65 C);  
 B2=10.59(25 C), 10.43(45 C), 10.18(65 C)

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Ag+ sol non-aq 275°C 100% U T B2=4.39 1967SPc (1538) 278  
 B3=4.89  
 B(Ag2L)=3.93  
 B(Ag3L)=4.46  
 Kso=-6.57  
 Medium: (Na/K)NO3. At 300 C: B2=4.24, B3=4.50, B12=3.75, B13=4.16, Kso=-6.19  
 Ks1=-4.3, m units

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Ag+ ISE non-aq 23°C 100% U I B2=12.0 1966LIb (1539) 279  
 Kso=-10.6  
 Medium: DMSO, I=0.1 M Et4NClO4. In MeCN: Kso=-13, 2, B2=13.4 to 14.1  
 In MeOH: Kso=-15.2, B2=11.5; in Me2CO: Kso=-18.7, B2=20.0; in EtNO2: Kso=-21.8

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Ag+ dis oth/un 0.0 U 1966LKa (1540) 280  
 Kd(H+Ag+2L+3TBP(C6H6))=9.79

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Ag+ ISE non-aq 150°C 100% U 1965BFc (1541) 281  
 Kso=-9.72  
 Medium: (Li/K)NO3 eutectic. m units

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Ag+	ISE non-aq 25°C 100% U		1965MBd (1542) 282
		Kso=-4.26	
Medium: diaminoethane			
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Ag+	sol NaClO4 20°C 7.0M U		1964AJa (1543) 283
		Ks2=-4.90	
		Ks3=-3.67	
		Ks4=-3.65	
Medium: 4 M NaClO4, 3 M HClO4			
-----			
Ag+	ISE non-aq 250°C 100% U H		1964BLa (1544) 284
		Kso=-9.07	
Medium: molten (Na/K)NO3. DHso=93.6 kJ mol <sup>-1</sup>			
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Ag+	ISE non-aq 280°C 100% U	K1=2.43 B2=4.38	1964CMA (1545) 285
		B3=4.77	
		B(Ag2L6)=10.08 ?	
		Kso=-6.52	
Medium: molten (Na/K)NO3. By solubility: K1=2.43, B2=4.36, B3=4.83, B(2,6)=10.34, Kso=-6.57?			
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Ag+	sol oth/un 300°C var U		1964GGa (1546) 286
		Ks2=-0.95	
Medium: NaBr var			
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Ag+	sol oth/un 20°C 0.0 U	K1=4.68	1964LIa (1547) 287
		K(AgL+Ag)=2.38	
		K(AgL+2Ag)=3.45	
ynd Ref: 64La. Medium: 0 corr			
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Ag+	sol oth/un 18°C var U	K1=4.69 B2=7.65	1963MIc (1548) 288
		B3=8.70	
		B4=8.78	
		B5=8.0	
		Kso(AgBr)=-12.68	
Medium: NaBr.			
-----			
Ag+	ISE non-aq 148°C 100% U T		1963THa (1549) 289
		Kso(AgBr)=-11.4	
Medium: Ag electrode. Method: liquid (Li/K)NO3. Kso=-10.9(172 C), -10.3(194.5 C), -10.2(211.5 C). x units.			
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Ag+	ISE non-aq 403°C 100% U T	K1=2.97 B2=5.54	1962ABb (1550) 290
		K(AgBr+Ag=Ag2Br)=2.47	
Method: Ag electrode. Medium: liquid KNO3, x units. At 452 C: K1=2.86, K2=2.44 K(AgL+Ag)=2.32. At 500 C: K1=2.73, K2=2.29, K(AgL+Ag)=2.16			
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Ag+	ISE non-aq ? 100% U		1962BSa (1551) 291
		Kso(AgBr)=-19	
Method: Ag electrode. Medium: THF, 0.3 M LiClO4			

Ag+	sol	NaClO <sub>4</sub>	25°C	7.0M	U		1962FSb	(1552)	292
						B <sub>4</sub> =9.00 K <sub>so</sub> (AgBr)=-12.11			
Ag+	ISE	non-aq	402°C	100%	U T	K <sub>1</sub> =2.80 B <sub>2</sub> =5.19 K(AgBr+Ag=Ag <sub>2</sub> Br)=2.45	1962MBc	(1553)	293
Method: Ag electrode. Medium: liquid NaNO <sub>3</sub> , x units. At 438 C: K <sub>1</sub> =2.70, K <sub>2</sub> =2.26 K(Ag <sub>L</sub> +Ag)=2.30. 460 C: K <sub>1</sub> =2.63, K <sub>2</sub> =2.18, K(Ag <sub>L</sub> +Ag)=2.22. 500 C: 2.51, 2.01, 2.08									
Ag+	ISE	non-aq	376°C	100%	U T H	K <sub>1</sub> =1.97 B <sub>2</sub> =3.49 Method: Ag electrode. Medium: liquid (Na,K)NO <sub>3</sub> . K <sub>1</sub> =1.86, K <sub>2</sub> =1.26(414 C) DH(K <sub>1</sub> )=-24.9 kJ mol <sup>-1</sup> . DH(K <sub>2</sub> )=-58.2 kJ mol <sup>-1</sup>	1961DGc	(1554)	294
Ag+	ISE	R4N.X	25°C	1.0M	U	K <sub>so</sub> (AgBr)=-11.92	1961LPa	(1555)	295
Method: Ag electrode. Medium: NH <sub>4</sub> ClO <sub>4</sub>									
Ag+	con	non-aq	25°C	100%	U	K <sub>1</sub> =4.08	1961SBb	(1556)	296
Medium: C <sub>2</sub> H <sub>4</sub> (NH <sub>2</sub> ) <sub>2</sub> . K <sub>1</sub> =5.05 by Ag electrode									
Ag+	cal	non-aq	158°C	100%	U H		1960JMa	(1557)	297
Medium: liquid (Li,K)NO <sub>3</sub> . DH(so)=109 kJ mol <sup>-1</sup> . DS=81.6 J K <sup>-1</sup> mol <sup>-1</sup> .									
Ag+	sol	none	20°C	0.0	U	B(Ag <sub>2</sub> Br)=7.06 B(Ag <sub>3</sub> Br)=8.13	1960LIa	(1558)	298
Ag+	sol	none	18°C	0.0	U	K <sub>1</sub> =4.68 B <sub>2</sub> =7.66 K <sub>3</sub> =0.85 K <sub>4</sub> =-1.29 K <sub>so</sub> (AgBr)=-12.68	1957LIa	(1559)	299
Ag+	ISE	non-aq	250°C	100%	U H	K <sub>so</sub> (AgBr)=-7.12	1956FRb	(1560)	300
Method: Ag electrode. Medium: liquid Na/KNO <sub>3</sub> . DH=89.1 kJ mol <sup>-1</sup> , DS=34, m units									
Ag+	ISE	oth/un	12°C	var	U T H	K <sub>so</sub> (AgBr)=2.67-4470/T	1956KLa	(1561)	301
Method: Ag electrode. 12-82 C; DH=85.8 kJ mol <sup>-1</sup>									
Ag+	con	none	25°C	0.0	U T	K <sub>so</sub> (AgBr)=-12.28	1954GMa	(1562)	302
K <sub>so</sub> =-13.33(5 C), -12.83(15 C), -11.80(35 C), -11.34(45 C), -10.89(55 C)									
Ag+	ISE	none	24°C	0.0	U	B <sub>3</sub> =8.85 K <sub>4</sub> =0.13 K <sub>5</sub> =-0.38 B(Ag <sub>2</sub> Br <sub>6</sub> )=20.60	1954KTa	(1563)	303

-----  
Ag+ sol NaClO4 25°C 5.0M U I 1954KTa (1564) 304

B3=9.18

K4=0.30

In 0.1 M NaClO4 K1=4.30, K2=2.34, K3=1.44. In KBr var: K1=5.08, K2=2.62, K3=1.06, K4=0.14, K5=-0.39 or B(Ag2L6)=20.51. AgNO3 var: B(Ag3L)=8.00, B(Ag4L)=8.38

-----  
Ag+ sol oth/un 20°C var. U I B2=7.93 1954KTa (1565) 305

K3=0.97

K4=-0.06

K(AgBr(s)+Br=AgBr2)=-4.60

K(AgBr(s)+2Br=AgBr3)=-3.64

Medium: AgNO3. K(AgBr(s)+3Br=AgBr4)=-3.70. Also data for MeOH/H2O, Me2CO/H2O and EtOH/H2O mixtures

-----  
Ag+ sol none 25°C 0.0 U T B3=8.53 1954LPb (1566) 306

B3=8.66(35 C), 8.70(45 C)

-----  
Ag+ ISE oth/un 20°C var U T H B3=9.03 1954PVa (1567) 307

B5=9.37

Kso(AgBr)=-12.57

Method: Ag electrode. B3=8.71(30 C), 8.12(50 C), 7.68(70 C). DH(B3)=-52.7 kJ mol-1. B5=8.87(30 C), 7.98(50 C), 7.19(70 C). DH(B5)=-85.4. Kso=-10.80(60 C)

-----  
Ag+ ISE NaClO4 25°C 5.0M U I B3=8.88 1953BLa (1568) 308

K4=0.27

B(Ag2Br6)=ca.20

Kso(AgBr)=-12.62

Method: Ag electrode. In 0.1 M Kso=-12.11. By solubility, 5 M: B2=7.23, K3=1.85, K4=0.12, K(AgL(s)+L=AgL2)=-5.40, K(AgL(s)+2L)=-3.52, K(AgL(s)+3L)=-3.41

-----  
Ag+ sol NaClO4 25°C 0.10M U I K1=4.15 B2=7.11 1953BLa (1569) 309

K3=0.84

K4=0.94

Kso(AgBr)=-12.10

K(AgBr(s)=AgBr)=-7.96

K(AgL(s)+L=AgL2)=-5.00, K(AgL(s)+2L)=-4.15, K(AgL(s)+3L)=-3.22. At I=0 corr. K1=4.38, K2=2.96, K3=0.66, K4=0.73, Kso=-12.37, K(AgL(s)+L)=-7.96 etc.

-----  
Ag+ con none 25°C 0.0 U Kso(AgBr)=-12.2 1953GMb (1570) 310

-----  
Ag+ ISE none 25°C 0.0 U B3=8.72 1952CPa (1571) 311

B5=9.30

-----  
Ag+ sol oth/un 25°C var U 1949RWa (1572) 312

$$K_{so}(\text{AgBr}) = -12.4$$

Ag+ sol oth/un 25°C var U H 1941ERa (1573) 313

$$B(\text{Ag}_2\text{Br}_6) = 20.2$$
$$K(2\text{AgBr}(s)+4\text{Br}=\text{Ag}_2\text{Br}_6)=-4.2$$

B4=8.51

Medium: HBr.  $\Delta H(\text{Ag}_2\text{Br}_6) = -160 \text{ kJ mol}^{-1}$

Ag+ ISE none 25°C 0.0 U T H 19380Ba (1574) 314

$$K_{so}(\text{AgBr}) = -12.30$$

Method: Ag electrode.  $I=0$  corr.  $\Delta H(\text{so})=84.3 \text{ kJ mol}^{-1}$ ,  $\Delta S=47.3 \text{ J K}^{-1} \text{ mol}^{-1}$ .

$$K_{so} = -13.386(5 \text{ C}), -12.820(15 \text{ C}), -11.828(35 \text{ C}), -11.392(45 \text{ C})$$

Ag+	ISE	none	25°C	0.0	U	1933HJa	(1575)	315
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$$K_{so}(AgBr) = -12.20$$

Ag+	ISE oth/un 18°C 0.10M U	1930MAa	(1576)	316
-----	-------------------------	---------	--------	-----

$$K_{so}(\text{AgBr}) = -12.31$$

Method: Ag electrode. Medium: KBr

Ag+	ISE	alc/w	25°C	100%	U	1929BHa	(1577)	317
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$$K_{so}(\text{AgBr}) = -15.24$$

Method: Ag electrode. Medium: MeOH

Ag+	ISE	none	16°C	0.0	U	1927CAa	(1578)	318
-----	-----	------	------	-----	---	---------	--------	-----

$$K_{so}(\text{AgBr}) = -12.50$$

Ag+ ISE oth/un rt var. U 1927HSa (1579) 319

$$K_{so}(\text{AgBr}) = -11.62$$

Ag+	ISE oth/un 18°C var. U	1921K0a	(1580)	320
-----	------------------------	---------	--------	-----

$$K_{so}(\text{AgBr}) = -12.39$$

Ag+ con oth/un 21°C dil U 1908K0a (1581) 321

$$K_{so}(\text{AgBr}) = -12.47$$

Ag+ con oth/un 100°C dil U 1906B0a (1582) 322

$$K_{so}(\text{AgBr}) = -9.4$$

Ag+	sol oth/un	25°C var.	U	1904BEa	(1583)	323
-----	------------	-----------	---	---------	--------	-----

B4=8.94

Medium: KBr.

Ag+	con	none	20°C	0.0	U	1903B0b	(1584)	324
-----	-----	------	------	-----	---	---------	--------	-----

$$K_{so}(AgBr) = -12.69$$

Ag+	sol	none	25°C	0.0	U	1902BFa	(1585)	325
-----	-----	------	------	-----	---	---------	--------	-----

$$K_{so}(\text{AgBr}) = -12.237$$

$I=0$  corr.  $K_{so}(AgBr)/K_{so}(AgCl)=-2.485$ .

Ag+ sol oth/un 25°C var. U 1900HEb (1586) 326  
 B(Ag<sub>2</sub>Br)=9.70  
 Medium: AgNO<sub>3</sub>.

Ag+ ISE oth/un 25°C var. U 1900THa (1587) 327  
 Kso(AgBr)=-12.18

Ag+ ISE oth/un 25°C var. U 1894G0a (1588) 328  
 Kso(AgBr)=-12.36

Ag+ con oth/un 20°C dil U T 1893H0a (1589) 329  
 Kso(AgBr)=-11.13  
 Kso=-10.32(38.4 C)

Ag+ con oth/un 18°C dil U 1893KR a (1590) 330  
 Kso(AgBr)=-11.4

\*\*\*\*\*  
 BrO<sub>3</sub>- HL Bromate (6017)  
 Bromate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
 Ag+ con none 30°C 0.0 C I K1=1.033 1990GKd (2395) 331  
 Also data for 20-100% w/w DMSO/H<sub>2</sub>O.

Ag+ con none 30°C 0.0 C I K1=1.03 1986SKf (2396) 332  
 Data for 0.001-0.008 M AgBrO<sub>3</sub> in 0-100% AN/H<sub>2</sub>O or MeOH/AN mixtures.  
 In 100% acetonitrile, K1=2.49

Ag+ ISE non-aq 20°C 100% U 1968BBb (2397) 333  
 Kso=-11.1  
 Medium: nitromethane

Ag+ cal oth/un 25°C dil U H 1967SVa (2398) 334  
 DHso(AgL(s)=Ag+L)=80.7 kJ mol<sup>-1</sup>

Ag+ sol none 25°C 0.0 U TIH 1963RDa (2399) 335  
 Kso(AgL)=-4.27  
 I=0 corr.Kso=-4.58(14.7 C), -3.99(35 C). DH(so)=49.0 kJ mol<sup>-1</sup>, DS=82 (25 C)  
 In D<sub>2</sub>O: Kso=-4.75(14.7 C), -4.41(35 C), -4.13(35 C). DH(so)=52.3, DS=91

Ag+ sol none 25°C 0.0 U K1=0.30 1951M0a (2400) 336  
 Kso(AgL)=-4.28

Ag+ sol none 25°C 0.0 U 1949TL a (2401) 337  
 Kso(AgL)=-4.26

Ag+ sol none 25°C 0.0 U 1923B0a (2402) 338  
 Kso(AgL)=-4.24



Ag+ con none 20°C 0.0 U 1903B0b (2403) 339  
Kso(AgL)=-4.40  
\*\*\*\*\*  
CN- HL Cyanide CAS 74-90-8 (230)  
Cyanide;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	cal	NaCl04	25°C	1.0M	C	H			1996SMc	(2530) 340
DH(B4)=-144.2 kJ mol <sup>-1</sup> , DS(B4)=-98.3 J mol <sup>-1</sup> K <sup>-1</sup> .										
Ag+	ISE	non-aq	185°C	100%	M			K1=2.10 B2=4.24 B3=4.40	1988JHb	(2531) 341
Medium: molten KSCN. K1=mol <sup>-1</sup> kg										
Ag+	ISE	oth/un	25°C	0.04M	C	TIH	R	K1=13.23 B2=20.9 B3=21.8	1987BEa	(2532) 342
IUPAC evaluation										
Ag+	ISE	KN03	25°C	0.10M	C			B2=20.61	1985YWa	(2533) 343
Ag+	ISE	non-aq	?	100%	C				1978GRa	(2534) 344
K(Ag+2HCN=Ag(HCN)2)=5.64 Medium: liquid anhydrous HF										
Ag+	ISE	oth/un	20°C	0.10M	U			K1=15.45 B2=20.45	1976CCa	(2535) 345
Medium: pH 11.0										
Ag+	ISE	KN03	25°C	0.10M	U			B2=18.75	1974MKd	(2536) 346
Ag+	EMF	NaCl04	25°C	1.00M	U	M			1972FAa	(2537) 347
K(Ag+Cr(III)(CN))=5.7 K(Cr(CN)+Cr(CN)Ag)=5.0										
Ag+	ix	NaCl04	25°C	1.0M	U	M			1972FAa	(2538) 348
K(Ag+Cr(III)(CN))=5.7 K(Cr(III)CN+Cr(III)(CN)Ag)=5.0										
Ag+	sol	NaCl04	25°C	1.0M	U			B2=20.14 B(Ag(OH)(CN))=12.80 Kso=-15.54	1972GCa	(2539) 349
Ag+	EMF	oth/un	25°C	0.03M	U			B2=20.9 B3=21.8	1972HFa	(2540) 350
Medium: 0.025 M KCN										
Ag+	con	non-aq	20°C	100%	U			B2=23.4 B(Ag2CN)=15.0 Kso=-14.9	1970DMa	(2541) 351
Medium: DMSO, 0.1 M Et4NC104										

Ag+	con	non-aq	25°C	100%	U	K1=5.88 K3=4.3	B2=10.18	1969MKe	(2542)	352
Medium: pyridine										
Ag+	ISE	non-aq	20°C	100%	U	B2=34 Kso <-24		1968BBb	(2543)	353
Medium: MeNO2										
Ag+	ISE	oth/un	30°C	var	U	B2=21.1		1968KAa	(2544)	354
Medium: KCN										
Ag+	ISE	non-aq	370°C	100%	U	K1=1.16	B2=1.79	1968WIb	(2545)	355
Medium: molten (Li/K)Cl. Alternatively: K1=1.11, B2=1.85										
Ag+	ISE	KNO3	30°C	1.0M	U	B3=20.30 B4=20.79		1967ADb	(2546)	356
Ag+	ISE	oth/un	25°C	1.0M	U	B4=20.37		1967BPf	(2547)	357
Ag+	nmr	non-aq	25°C	100%	U	K(2AgHL=Ag+Ag(HL)2)=0.66		1967DHa	(2548)	358
Medium: liquid HF										
Ag+	vlt	non-aq	195°C	100%	U	B2=3.20		1967ETa	(2549)	359
Medium: liquid KSCN										
Ag+	ISE	NaClO4	21°C	4.25M	U	B2=20.23 B(AgL(OH))=13.23		1967ZFc	(2550)	360
Ag+	ISE	non-aq	190°C	100%	U	K1=3.2		1966BJa	(2551)	361
Medium: liquid KSCN, 178-204 C										
Ag+	ISE	non-aq	20°C	100%	U	K1=6.45	B2=11.90	1966THb	(2552)	362
Medium: liquid NH3/NH4NO3										
Ag+	ISE	non-aq	150°C	100%	U	B2=13.50 Kso=-10.45		1965BFc	(2553)	363
Medium: molten (Li/K)NO3 eutectic, m units										
Ag+	ISE	non-aq	248°C	100%	U	K1=4.04	B2=8.04	1965TIb	(2554)	364
Medium: molten (Na/K)NO3										
Ag+	ISE	oth/un	20°C	0.0	U	B2=20.85 K3=0.95 KsoKs2=-11.35		1965ZPa	(2555)	365
Ag+	ISE	oth/un	25°C	var	U	B2=20.44		1963ASb	(2556)	366

B3=21.98  
 $K_{so}(AgCN(s)=Ag+CN)=-15.84$   
 $K=-11.23$

K:  $K_{so}.K(2AgCN(s)=Ag+Ag(CN)_2)$

---

Ag+            sol oth/un 20°C 0.10M U    M                            1963CBa (2557) 367  
 $K(Ag+Pt(NH_3)_2L_4)=1.37$

---

Ag+            oth KNO3        ?    sat    U                            1962FRc (2558) 368  
 $K_3=1.1$

Medium: saturated. Method: freezing point

---

Ag+            ISE non-aq 246°C 100% U T             $K_1=5.36$      $B_2=10.26$     1962MBb (2559) 369  
 $K_s(AgCN(s)+Ag=Ag_2CN)=4.90$

Medium: 1:1 (x/x) KNO3/NaNO3(liquid);  $K_1=5.34$ ,  $K_2=5.02$ ,  $K(s)=4.78(286\text{ C})$   
 $K_1=5.28$ ,  $K_2=4.7$ ,  $K(s)=4.6(326\text{ C})$

---

Ag+            ISE non-aq 25°C 100% U             $K_1=7.7$      $B_2=13.3$     1961SBb (2560) 370  
Medium: diaminoethane

---

Ag+            ISE non-aq 250°C 100% U    H             $B_2=10.87$             1956FRb (2561) 371  
 $K_{so}(AgCN(s)=Ag+CN)=-8.20$

Medium: 1:1 (m/m) NaNO3/KNO3(liquid);  $DH(B_2)=-149.5\text{ kJ mol}^{-1}$

---

Ag+            oth none        25°C    0.0    U                            1956KSb (2562) 372  
 $K=6.53$

$B(Ag(CN)OH)=13.22$   
 $K_{so}(AgCN(s)=Ag+CN)=-15.64$

K:  $K(Ag+2OH+Ag(CN)_2=2(Ag(CN)OH)$ ; Method: amperometry

---

Ag+            oth none        21°C    0.0    U    I                            1954JPa (2563) 373  
 $K_3=0.70$

$K_4=-1.13$

Method: ir.  $K_3=0.97$ ,  $K_4=-0.55$  at 0.05 to 1.5 M CN

---

Ag+            ISE oth/un 18°C    var    U                             $B_2=20.7$             1949GAb (2564) 374  
 $K=-11.3$

K:  $K_{so}.K(AgCN(s)+CN=Ag(CN)_2)$

---

Ag+            sol none        25°C    0.0    U                             $B_2=19.85$             1947RIa (2565) 375  
 $K_s(AgCN(s)=Ag+CN)=-14.89?$

---

Ag+            ISE oth/un        ?    var    U                             $B_2=21.2$             1941BJa (2566) 376  
 $K_3=0.89$   
 $B_4=ca.22$

---

Ag+            ISE oth/un 15°C    var    U                             $B_2=21.4$             1932BDa (2567) 377  
 $K=-11.29$

K:  $K_{so}.K(AgCN(s)+CN=Ag(CN)_2)$

---

Ag+ ISE oth/un 18°C 0.01M U 1930MAa (2568) 378  
 $K(\text{AgCN}(s)=\text{Ag}+\text{CN})=-13.34$

Medium: KCN

Ag+ sol none 25°C 0.0 U B2=18.42 1930RHa (2569) 379  
 $K(\text{AgCN}(s)=\text{Ag}+\text{CN})=-14.15$

Ag+ ISE oth/un ? var U B2=21.06 1904BEa (2570) 380  
 $K3=0.89$

Ag+ sol oth/un 25°C var U 1904LUa (2571) 381  
 $K=-11.3$

K:  $K_{so}.K(\text{AgCN}(s)+\text{CN}=\text{Ag}(\text{CN})_2)$

Ag+ con oth/un 20°C dil U 1903BOb (2572) 382  
 $K=-11.65$

K:  $K_{so}.K(\text{AgCN}(s)+\text{CN}=\text{Ag}(\text{CN})_2)$

Ag+ ISE oth/un ? var U 1903EUa (2573) 383  
 $B2 \text{ ca. } 20.8$

Ag+ ISE oth/un 18°C var U 1895MOa (2574) 384  
 $K(\text{AgCN}(s)=\text{Ag}+\text{CN})=-13.0$

\*\*\*\*\*

C03-- H2L Carbonate CAS 465-79-6 (268)  
 Carbonate;

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

Ag+ sol oth/un 25°C 0 U T H K1=2.50 1986NPb (3002) 385  
 Extrapolation of constants measured at different I to zero ionic strength. D  
 Also for 90 C K1=2.64; DH=+29.4; for 60 C K1=2.42; DH=+7.5

Ag+ gl NaCl04 25°C 1.0M C K1=<1.5 1983MAe (3003) 386  
 Additional method: Ag ion selective electrode.

Ag+ sol none 25°C 0.0 U 1935KAa (3004) 387  
 $K_{so}(\text{Ag}_2\text{CO}_3(s))=-11.09$

Ag+ ISE oth/un 18°C 0.10M U 1930MAa (3005) 388  
 $K_{so}(\text{Ag}_2\text{CO}_3(s))=-11.3(?)$

Method: Ag electrode. Medium: Na2CO3.

Ag+ ISE oth/un 25°C var U 1909SPa (3006) 389  
 $K_{so}(\text{Ag}_2\text{CO}_3(s))=-11.19$

Ag+ ISE none 25°C 0.0 U 1903ACa (3007) 390  
 $K_{so}(\text{Ag}_2\text{CO}_3(s))=-11.40$

\*\*\*\*\*

C2N3- HL Dicyanamide CAS 504-66-5 (2917)

Dicyanamide; (NC.N.CN)-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	var	U				1954SSb	(3468) 391
									$K(\text{Ag}_2\text{L}(\text{s})=2\text{Ag}+\text{L})=-10.14$	

Ligand: cyanamid, CN2--

Ag+	ISE	none	18°C	0.0	U				1930BHa	(3469) 392
									$K(\text{AgL}(\text{s})=\text{Ag}+\text{L})=-8.85$	

C4N3- HL CAS 454-50-2 (2918)  
Tricyanomethanide; (C(CN)3)-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	none	18°C	0.0	U				1930BHa	(3477) 393
									$K(\text{AgL}(\text{s})=\text{Ag}+\text{L})=-10.14$	

C6N6Co--- H3L Cyanocobaltate (5470)  
Hexacyanocobaltate; [Co(CN)6]---

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.0	U				1965R0a	(3482) 394
									$K_{\text{so}}(\text{Ag}_3\text{L})=-25.41$	

Ag+	ISE	none	25°C	0.0	U				1959DTa	(3483) 395
									$K_{\text{so}}(\text{Ag}_3\text{L})=-20.07$	
									$K_{\text{s}}(\text{Ag}_2\text{TlL})=-15.48$	
									$K_{\text{s}}(\text{AgTl}_2\text{L})=-10.12$	

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	sol	KNO3	25°C	2.00M	U				1971HFa	(3531) 396
									$K_{\text{so}}=-36.84$	
									$K_{\text{s}}(\text{KAg}_3\text{L}=\text{K}+3\text{Ag}+\text{L})=-28.97$	

Ag+	con	oth/un	?		U				1970BEa	(3532) 397
									$K_{\text{so}}=-19.21$	
									$K_{\text{s}}(\text{KAg}_3\text{L}=\text{K}+3\text{Ag}+\text{L})=-19.33$	

Ag+	ISE	oth/un	25°C	0.0	U				1964RPa	(3533) 398
									$K_{\text{so}}(\text{Ag}_4\text{L})=-44.07$	

Ag+	ISE	none	18°C	0.0	U	M			1958DTb	(3534) 399
									$K_{\text{so}}=-27.15$	

Ks(Ag3TlL)=-23.55  
Ks(Ag2Tl2L)=-17.95

-----  
Ag+ ISE none 25°C 0.0 U 1938POa (3535) 400  
Kso=-40.81

\*\*\*\*\*

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

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

Ag+ con oth/un 20°C U T H 1973BCb (3615) 401  
Kso=-18.3

Kso=-17.9(30 C-40 C)

\*\*\*\*\*

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

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

Ag+ sol none 25°C 0.0 C IH B2=7.9 2003WAa (4029) 402  
Kso(AgCl)=-9.77

Method: analysis of literature data. DH(Kso)=66.3 kJ mol<sup>-1</sup>. Also Kso=  
-12.82 (methanol), -12.8 (acetonitrile), -10.39 (DMSO). B2=11.9 (DMSO).

-----  
Ag+ ISE non-aq 87°C 100% U M K1=3.65 B2=5.77 1987BP a (4030) 403  
B3=6.49  
B(Ag(SCN)L)=6.55  
B(Ag(SCN)2L)=7.34  
B(Ag(SCN)L2)=7.13

Medium: fused acetamide. K(AgSCN+L)=2.97, K(Ag(SCN)2+L)=1.15

-----  
Ag+ ISE non-aq 25°C 100% U IH K1=6.85 B2=10.16 1987JP a (4031) 404  
Medium: tetrahydrothiophene, 0.1M Bu4NBF4

-----  
Ag+ ISE non-aq 25°C 100% C H K1=4.95 B2=8.56 1986AI b (4032) 405  
K3=0.99

Medium: Pyridine, 0.1 M Et4NClO4; DH(K1)=1.0, DH(K2)=7.6, DH(K3)=-2.6 kJ m<sup>-1</sup>

-----  
Ag+ ISE non-aq 25°C 100% C H K1=4.95 B2=8.56 1986AI b (4033) 406  
B3=9.54

B(2Ag+Cl)=6.92

Medium: DMSO, 0.1 M NH4ClO4. DH(K1)=1.0; DH(B2)=8.6 kJ mol<sup>-1</sup>; DH(B3)=6.0;  
DH(Ag2Cl)=3.0

-----  
Ag+ ISE NaCl 25°C 0.00 U TIH K1=3.23 B2=5.15 1985FR a (4034) 407  
B3=5.04

B4=3.64

DH(K1)=-27.6 kJ mol<sup>-1</sup>; DH(B2)=-21.3; DH(B3)=-41.8; DH(B4)=-69.9. Also data  
15, 35, 60, 100, 150 and 160 C. Kso=-7.44 at 100 C; -6.37 at 150 C.

-----  
 Ag+ ISE KNO3 0°C 1.00M U M K1=4.97 B2=5.95 1985MMc (4035) 408  
 mixed complexes with thiourea B(AgLA)= 8.45; with thioacetamide:B(AgLA=9.08)  
 B(AgL2A)=9.78; with thiourea and thioacetamide B(AgLAB)=12.71  
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Ag+ ISE KNO3 25°C 1.00M U T HM K1=4.05 B2=4.88 1985MMd (4036) 409  
 DH(K1)=-44.4 kJ mol<sup>-1</sup>; DH(B2)=-40.1; DS(K1)=-71.2 J K<sup>-1</sup> mol<sup>-1</sup>; DS(B2)=-41.3  
 Ternary complexes with: thiourea,thiosulphate,iodide  
 -----

Ag+ ISE oth/un 25°C var U Kso(AgCl)=-9.81 1984GOa (4037) 410  
 -----

Ag+ ISE non-aq 25°C 100% U I B2eff=25.5 1981CLa (4038) 411  
 Kso=-23.2  
 -----

Medium: methylisobutylketone. Data available for water equilibrated MIBK  
 -----

Ag+ ISE non-aq 87°C 100% U K1=4.48 B2=6.95 1981GBb (4039) 412  
 Medium: fused acetamide  
 -----

Ag+ cal NaClO4 25°C 5.0M C H 1977ATb (4040) 413  
 Medium: 0.1 M HClO4/4.9 M NaClO4. DH(B3)=-39.2 kJ mol<sup>-1</sup>, DS(B3)=  
 -14 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B4)=-62.0, DS(B4)=-105; DH(Kso(AgCl))=62.7, DS=20.  
 -----

Ag+ sol alc/w 25°C 10% U I K1=3.16 B2= 5.53 1977KDb (4041) 414  
 B3=3.81  
 Ks=-10.00  
 -----

Medium: EtOH/H2O. 0% EtOH: K1=3.22,B2=5.07,B3=5.60, Ks=-9.77. 50% EtOH:  
 K1=3.96,B2=7.10,B3=6.68, Ks=-10.97. 100% EtOH: K1=5.87,B2=10.72,B3=11.37  
 -----

Ag+ sol none 100°C 0.0 U T H K1=2.88 B2=4.49 1976SEb (4042) 415  
 B3=3.85  
 B4=1.94  
 Kso=-7.65  
 -----

Further data also available for T=197, 277 and 353.  
 -----

Ag+ ISE non-aq 25°C 100% U B2=13.083 1975SAb (4043) 416  
 B3=15.01  
 Kso=-12.07  
 -----

Medium: propylene carbonate/0.56 M tetrahydrothiophene  
 -----

Ag+ ISE non-aq 25°C 100% U I B2=10.538 1975SAb (4044) 417  
 B3=12.13  
 Kso=-9.40  
 -----

Medium: propylene carbonate/0.56 M tetrahydrothiophene. In PC/1.56 M THT,  
 B2=9.30, B3=10.74, Kso=-8.30  
 -----

Ag+ ISE non-aq 25°C 100% U I B2=16.6 1975SAc (4045) 418  
 Kso=-15.3  
 B2=13.9 in TMSO  
 -----

Medium: PC/TMSO, 1.23 M. In dimethylsulfite: Kso=-16.8, B2=14.3.  
In ethylene sulfite: B2=18.4, Kso=-18.6. TMSO=Tetramethylene sulfoxide

Ag+ EMF NaCl 50°C 0.0 U IH 1974DGb (4046) 419  
K<sub>so</sub>=-10.86

Medium: NaCl, CaCl<sub>2</sub>(H<sub>2</sub>O)<sub>4</sub>, x% NaCl; x=0. K<sub>so</sub>=-10.96(x=10), -11.03(x=20); DH(K<sub>so</sub>)=65.48 kJ mol<sup>-1</sup>(x=0), 66.53(x=10), 68.37(x=20)(x units)

Ag+	sol alc/w	25°C	25%	U	I	B2=6.1 B3=6.5 B4=6.7 B5=5.3	1974DZb	(4047)	420
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Medium: 25% w/w MeOH/H<sub>2</sub>O, CsCl. 0% MeOH: B2=5.3, B3=5.8, B4=4.9, B5=5.5

Ag+ EMF non-aq 30°C 100% U K1=2.1 1974JAc (4048) 421  
Medium: pyridine, 0.2 M LiClO4; m units

Ag+	dis	R4N.X	70°C	? U	K1=2.30	B2=4.30	1974NGC	(4049)	422
					K3=0.30				
					K4=-0.5				

Medium:  $\text{NH}_4\text{NO}_3(\text{H}_2\text{O})_2$ ; m units

Ag+ ISE non-aq 25°C 100% U I B2=17.8 1974SAb (4050) 423  
B3=19.6  
Kso=-16.2

Medium: 3-Me-2-oxazolidone. I=0 corr. With 0.1 M Pr4NClO4: B2=17.55, B3=19.28, Kso=-15.93

Ag+ ISE mixed 25°C 80% U I B2=11.60 1974SAc (4051) 424  
B3=11.60  
Kso=-13.17

Medium: 80% acetone/H<sub>2</sub>O. In 91% acetone, B<sub>2</sub>=14.32, B<sub>3</sub>=14.40, K<sub>so</sub>=-14.96.  
In 98.5% acetone, K<sub>so</sub>=-17.95, B<sub>2</sub>=19.10, B<sub>3</sub>=20.37

Ag+ EMF non-aq 87°C 100% U 1973BMc (4052) 425  
Kso=-5.55 (m units)

Medium: CH<sub>3</sub>COOH

Ag+ ISE none 25°C 0.0 U K<sub>so</sub>=-9.7 1973BRa (4053) 426

Ag+ ISE non-aq 25°C 100% U I B2=16.7 1973CKa (4054) 427  
Kso=-14.8

Medium: DMF. In MeCN: B2=13.7, Kso=-13.1, K(Ag+NO3)=1.84, K(Et4N+NO3)=0.7

Ag+ ISE non-aq 25°C 100% U B2=12.1 1973CKa (4055) 428  
Kso=-10.5

Medium: DMSO. B2=12.1 to 12.5, Kso=-10.4 to -10.9

Ag+	ISE	non-aq	350°C	100%	U T	K1=2.47	1973GBb	(4056)	429
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Medium:(Na,Ba)NO<sub>3</sub> eutectic. K<sub>1</sub>=2.39(375 C); 2.31(400 C)

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Ag+ sol KNO<sub>3</sub> 163°C 100% U T K<sub>1</sub>=3.17 B<sub>2</sub>=6.12 1973GDa (4057) 430  
K<sub>so</sub>=-9.07

Medium: (K,Ca)NO<sub>3</sub>. At 178 C: K<sub>1</sub>=3.09, K<sub>2</sub>=2.80, K<sub>so</sub>=-8.75(x units)  
At 198 C: K<sub>1</sub>=3.05, K<sub>2</sub>=2.58, K<sub>so</sub>=-8.38. DH(K<sub>1</sub>)=-18.8 kJ mol<sup>-1</sup>, DH(K<sub>so</sub>)=8.8

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Ag+ ISE mixed 25°C 10% U I 1973KKh (4058) 431  
K<sub>so</sub>=-9.90

Medium: 10% w/w PrOH/H<sub>2</sub>O. K<sub>so</sub>=-10.34(50%), -12.30(90%), -14.70(100%). In  
acetone/H<sub>2</sub>O: K<sub>so</sub>=-10.46(50%), -16.36(100%). DMF/H<sub>2</sub>O: -10.30(50%), -12.76(100%)

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Ag+ ISE oth/un 25°C dil U 1973KPa (4059) 432  
K<sub>so</sub>=-9.90

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Ag+ ISE alc/w 25°C 10% U I 1973KPa (4060) 433  
K<sub>so</sub>=-10.06

Medium: 10% v/v MeOH/H<sub>2</sub>O. K<sub>so</sub>=-10.35(40%), -10.93(60%), -11.57(90%). Also in  
EtOH, PrOH, i-PrOH. In acetone: K<sub>so</sub>=-9.88(40%). In DMF: K<sub>so</sub>=-10.0(10%), -10.6(60%)

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Ag+ EMF oth/un 320°C 100% U T K<sub>1</sub>=2.47 1973LVa (4061) 434  
Medium: molten (Li,Na)NO<sub>3</sub>. K<sub>1</sub>=2.42(340 C), 2.36(360 C), 2.30(380 C),  
2.25(400 C), 2.22(410 C)

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Ag+ ISE diox/w 20°C 50% U I 1973NEa (4062) 435  
K<sub>so</sub>=-11.48

Medium: v/v dioxan/H<sub>2</sub>O, 0.001 M KCl. K<sub>so</sub>=-12.92(70%), -13.94(80%),  
-14.98(90%)

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Ag+ EMF KNO<sub>3</sub> 25°C 3.0M U 1973PGa (4063) 436  
B(AgCl(OH))=4.7

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Ag+ ISE non-aq 25°C 100% U TI B<sub>2</sub>=8.67 1973SSg (4064) 437  
K<sub>so</sub>=-10.25

Medium: EtCN, 0.1 M (C<sub>3</sub>H<sub>7</sub>)<sub>4</sub>NC<sub>10</sub> and 0.95 M SO<sub>2</sub>. With 0 SO<sub>2</sub>: B<sub>2</sub>=15.94,  
B<sub>3</sub>=16.71, K<sub>so</sub>=-14.29. With 3.3 M SO<sub>2</sub>: B<sub>2</sub>=6.58, K<sub>so</sub>=-9.08

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Ag+ ISE non-aq ? 100% U 1972BGa (4065) 438  
K<sub>so</sub>=-11.75

Medium: ethylene glycol

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Ag+ ISE oth/un 50°C ? U T H 1972BNa (4066) 439  
K<sub>so</sub>=-10.66

Medium: Ca(NO<sub>3</sub>)<sub>2</sub>(H<sub>2</sub>O)<sub>4</sub>. DH(K<sub>so</sub>)=75.3 kJ mol<sup>-1</sup>. K<sub>so</sub>=-10.52(55 C), -10.24(60 C)  
-9.94(70 C), -9.67(80 C)

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Ag+ ISE non-aq 350°C 100% U T K<sub>1</sub>=2.40 1972GBa (4067) 440  
Medium:(Na,Ba)NO<sub>3</sub> eutectic. K<sub>1</sub>=2.30 to 2.33(375 C); 2.2(400 C)

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Ag+ ISE oth/un 350°C 100% U T K<sub>1</sub>=2.5 B<sub>2</sub>=4.30 1972GBb (4068) 441

Medium:(Na,Ba)NO<sub>3</sub> eutectic. K<sub>1</sub>=2.4,K<sub>2</sub>=1.7(375 C); K<sub>1</sub>=2.3,K<sub>2</sub>=1.5(400 C)

Ag+ ISE mixed ? 2.7% U I 1972KPa (4069) 442

K<sub>so</sub>=-9.8

Medium: 2.69% acetone/H<sub>2</sub>O. K<sub>so</sub>=-10.0(5.83%), -10.2(9.83%), -10.5(14.2%);

In DMF/H<sub>2</sub>O: K<sub>so</sub>=-10.04(2.52%), -10.32(13.3%), -10.66(25.9%)

Ag+ EMF non-aq 20°C 100% U I 1972NEa (4070) 443

K<sub>so</sub>=-15.10

Medium:CH<sub>3</sub>COOH. In (CH<sub>3</sub>CO)<sub>2</sub>O: K<sub>so</sub>=-16.34

Ag+ dis NaNO<sub>3</sub> 150°C 100% U K<sub>1</sub>=2.5 B<sub>2</sub>=4.60 1972TIa (4071) 444

Medium: (Li,K)NO<sub>3</sub>; K<sub>1</sub>, K<sub>2</sub> in m units

Ag+ sol alc/w 25°C 9.5% U I K<sub>1</sub>=3.59 B<sub>2</sub>=5.44 1971ABa (4072) 445

K<sub>so</sub>=-10.03

Medium: 9.47% w/w MeOH/H<sub>2</sub>O. 0%: K<sub>1</sub>=3.31,K<sub>2</sub>=1.95,K<sub>so</sub>=-9.75; 20%: K<sub>1</sub>=3.83, K<sub>2</sub>=1.99,K<sub>so</sub>=-10.27; 34.5%:K<sub>1</sub>=4.03,K<sub>2</sub>=2.20,K<sub>so</sub>=-10.47; 54%:4.94,2.45,K<sub>so</sub>=-11.38

Ag+ sol mixed 25°C 9.6% U I K<sub>1</sub>=3.36 B<sub>2</sub>=5.38 1971ABa (4073) 446

K<sub>so</sub>=-10.10

Medium; 9.64% w/w acetone/H<sub>2</sub>O. K<sub>1</sub>=3.85,K<sub>2</sub>=2.27,K<sub>so</sub>=-10.29(19.8%); K<sub>1</sub>=4.48, K<sub>2</sub>=2.56,K<sub>so</sub>=-10.92(34.4%); 4.55,2.99,-10.99(42.08%); 5.69,3.44,-12.13(54.2%)

Ag+ sol diox/w 25°C 8.2% U I K<sub>1</sub>=3.67 B<sub>2</sub>=5.69 1971ABa (4074) 447

K<sub>so</sub>=-10.11

K<sub>1</sub>=3.80,K<sub>2</sub>=2.25,K<sub>so</sub>=-10.30(20.5% dioxan); K<sub>1</sub>=4.17,K<sub>2</sub>=2.54,K<sub>so</sub>=-10.61(28.5%); K<sub>1</sub>=4.58,K<sub>2</sub>=2.94,K<sub>so</sub>=-11.02(40.8%); K<sub>1</sub>=5.92,K<sub>2</sub>=3.63,K<sub>so</sub>=-12.36(60.7%)

Ag+ ISE KNO<sub>3</sub> 25°C 0.01M U I 1971BBg (4075) 448

K<sub>so</sub>=-9.76

K<sub>so</sub>=-9.76(I=0), -9.77(I=0.001), -9.77(I=0.005)

Ag+ EMF non-aq 30°C 100% U B<sub>2</sub>=10.6 1971BPb (4076) 449

K<sub>so</sub>=-10.4

Medium: 2-pyrrolidinone, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>; K<sub>1</sub>(H+Cl)=0.8

Ag+ EMF non-aq 350°C 100% U T 1971GJa (4077) 450

K<sub>so</sub>=-4.02

Medium: (Na,Ba)NO<sub>3</sub> eutectic. logK<sub>so</sub>=2.376-3980/T

Ag+ sol alc/w 20°C 50% U I 1971NEa (4078) 451

K<sub>so</sub>=-10.48

Medium:50% w/w MeOH/H<sub>2</sub>O. K<sub>so</sub>=-11.14(70%), -11.68(80%), -12.10(90%), -13.0(100%)

In propanol/H<sub>2</sub>O: K<sub>so</sub>=-10.52(50%), -11.34(70%), -12.82(90%), -14.36(100%)

Ag+ ISE oth/un 110°C 0.40M U I K<sub>1</sub>=3.41 1971PEe (4079) 452

Medium:H<sub>2</sub>O/NH<sub>4</sub>NO<sub>3</sub>; (0.4 mol H<sub>2</sub>O/mol NH<sub>4</sub>NO<sub>3</sub>). K<sub>1</sub>=3.38(0.5 mol), 3.36(0.6mol), 3.32(0.8 mol), 3.29(1.0 mol), 3.26(1.2 mol), 3.25(1.4 mol), 3.22(2 mol)

Ag+	ISE	NaNO <sub>3</sub>	150°C	100%	U T	K <sub>1</sub> =3.33 K(Ag+AgL)=2.9	1971PEf	(4080)	453
At 160 C: K <sub>1</sub> =3.38(m units)									
Ag+	con	non-aq	20°C	100%	U	B <sub>2</sub> =11.7 B(Ag <sub>2</sub> Cl)=10.3 K <sub>so</sub> =-10.4	1970DMa	(4081)	454
Medium: DMSO, 0.1 M Et <sub>4</sub> NClO <sub>4</sub>									
Ag+	ISE	none	25°C	0.0	U	K <sub>so</sub> =-9.747	1970FLa	(4082)	455
Ag+	ISE	alc/w	25°C	10%	U I	K <sub>so</sub> =-9.992	1970FLa	(4083)	456
Medium: 10 % w/w MeOH/H <sub>2</sub> O. K <sub>so</sub> =-10.233(20.2%), -10.566(33.4%), -10.83(43%)									
Ag+	ISE	diox/w	25°C	100%	U	K <sub>so</sub> =-10.223	1970FLa	(4084)	457
Ag+	sol	R <sub>4</sub> N.X	55°C	?	U T	K <sub>1</sub> =2.41 K <sub>so</sub> =-7.95	1969BBE	(4085)	458
Medium: NH <sub>4</sub> NO <sub>3</sub> (H <sub>2</sub> O) <sub>2</sub> . K <sub>1</sub> =2.38, K <sub>so</sub> =-7.60(70 C); K <sub>1</sub> =2.34, K <sub>so</sub> =-7.30(85 C)									
Ag+	ISE	non-aq	30°C	100%	U I	B <sub>2</sub> =20.3 K <sub>so</sub> =-18.5	1969BBg	(4086)	459
Medium: sulfolane. B <sub>2</sub> =19.8, K <sub>so</sub> =-18.1 in sulfolane, I=0.1									
Ag+	ISE	non-aq	22°C	100%	U	B <sub>2</sub> =20.9 K <sub>so</sub> =-20.0	1969CLa	(4087)	460
Medium: propene carbonate									
Ag+	ISE	NaNO <sub>3</sub>	80°C	1.0M	U T	B <sub>2</sub> =4.47 B <sub>2</sub> =4.34(90 C). K <sub>so</sub> =-8.42(50 C), -8.26(60 C), -7.81(70 C), -7.37(90 C)	1969GUa	(4088)	461
Ag+	ISE	non-aq	98°C	100%	U	B <sub>2</sub> =6.30 B <sub>3</sub> =6.98 K <sub>so</sub> =-7.71	1969GUa	(4089)	462
Medium: acetamide, 1 M NaNO <sub>3</sub>									
Ag+	oth	none	50°C	0.0	U T	K <sub>1</sub> =3.17 B <sub>2</sub> =5.02 B <sub>3</sub> =5.08 B <sub>4</sub> =5.38	1969HEa	(4090)	463
Evaluated from literature data. At 100 C: values: 2.99, 4.71, 4.88, 5.26; 150 C: 2.92, 4.57, 4.85, 5.31									
Ag+	con	non-aq	25°C	100%	U	K <sub>1</sub> =7.08 B <sub>2</sub> =11.28 K(Ag <sub>2</sub> L+L=Ag <sub>2</sub> L <sub>2</sub> )=5.81	1969MKe	(4091)	464
Medium: pyridine									
Ag+	ISE	non-aq	25°C	100%	U TI	K <sub>1</sub> =6.8 B <sub>2</sub> =11.73	1969SBd	(4092)	465

$$K_{SO} = -10.279$$

Ag+ EMF non-aq 148°C 100% U T H 1969SMh (4093) 466

$$K_{SO} = -7.30$$

Ag+	ISE	non-aq	25°C	100%	U	B2=17.73	1969VKa	(4094)	467
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 $K_{SO} = -14.45$ 

Ag+	ISE	non-aq	20°C	100%	U	B2=19.5	1968BBb	(4095)	468
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 $K_{SO} = -19.2$ 

Ag+	ISE non-aq 25°C 100% U	1968BCc	(4096)	469
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Ag+ sol non-aq 45°C 100% U T H K1=2.5 1968BDd (4097) 470

$$K_{SO} = -9.17$$

Medium:D2O.  $K_{so}=-9.88(25\text{ }^{\circ}\text{C})$ ,  $K_1=3(25\text{ }^{\circ}\text{C})$ .  $\Delta H(K_{so})=64.8\text{ kJ mol}^{-1}$

Ag+ sol non-aq 25°C 100% U T H K1=3.81 1968Bdf (4098) 471

$$K_{SO} = -8.28$$

Medium:  $\text{H}_2\text{NCHO}$ .  $K_1 = 3.79(15 \text{ } ^\circ\text{C})$ ,  $K_{\text{so}} = -8.60(15 \text{ } ^\circ\text{C})$ ,  $\text{DH}(K_{\text{so}}) = 52.3 \text{ kJ mol}^{-1}$

By calorimetry:  $\Delta H(K_{so}) = 46.4(15, 25^\circ\text{C})$

Ag+ ISE non-aq 25°C 100% U K1=12.11 B2=16.295 1968BUd (4099) 472

$$B3 < 17.7$$
 $K_{SO} = -14.49$ 

Medium: DMF, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>

Ag+ sol oth/un 55°C 100% U T K1=2.40 B2=4.55 1968GAa (4100) 473

$$K3=0.69$$
 $K_{SO} = -8.00$ 

Medium:  $\text{NH}_4\text{NO}_3(\text{H}_2\text{O})_2$ . At 70.1 C:  $K_{\text{so}} = -7.61$ ,  $K_1 = 2.33$ ,  $K_2 = 2.03$ ,  $K_3 = 0.58$ , m units

At 85 C:Kso=-7.31,K1=2.31,K2=1.95,K3=0.47

Ag+      dis non-aq 150°C 100% U      K1=2.49    B2=4.59    1968GMb    (4101) 474

Medium: (Li/K)NO<sub>3</sub>. m units

Ag+ ISE non-aq 350°C 100% U H 1968GSf (4102) 475

$$K_{SO} = -4,10$$

Medium: (K/Ba)NO<sub>3</sub> eutectic. DH=80.1 kJ mol<sup>-1</sup>

Ag+ ISE non-aq 350°C 100% U T K1=2.60 B2=4.76 1968GSh (4103) 476

$$K(\text{Ag}+\text{AgL})=2.1$$

Medium: (K/Ba)NO<sub>3</sub>. At 370 C: K<sub>1</sub>=2.54, K<sub>2</sub>=2.10, K(Ag<sub>L</sub>+Ag)=2.0  
 At 390 C: K<sub>1</sub>=2.46, K<sub>2</sub>=2.0, K(Ag<sub>L</sub>+Ag)=2.0

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Ag+ sol non-aq 480°C 100% U 1968KU<sub>b</sub> (4104) 477  
 K<sub>so</sub>=-2.85

Medium: molten KNO<sub>3</sub>

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Ag+ sol non-aq 24°C 100% U 1968LA<sub>c</sub> (4105) 478  
 B(Ag<sub>2</sub>L)=7.73  
 B(Ag<sub>3</sub>L)=7.32

Medium: DMSO, 0.5 M Et<sub>4</sub>NClO<sub>4</sub>

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Ag+ sol non-aq 200°C 100% U T H K<sub>1</sub>=2.06 1968MG<sub>b</sub> (4106) 479  
 K<sub>so</sub>=-6.17

Medium: (Li/K)NO<sub>3</sub> eutectic. K<sub>so</sub>=-7.36(150C), -6.99(161C), -6.64(176C), -6.33(190C), DH=92.8 kJ mol<sup>-1</sup>. K<sub>1</sub>=2.48(150C), 2.38(161C), 2.25(176C), 2.13(190C)

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Ag+ ISE mixed 25°C 20% U I 1968MO<sub>a</sub> (4107) 480  
 K<sub>so</sub>=-10.26

Medium: 20% Me<sub>2</sub>CO/H<sub>2</sub>O. K<sub>so</sub>=-10.94(40%), -11.90(60%), -13.61(80%). In DMSO/H<sub>2</sub>O: K<sub>so</sub>=-9.81(20%), -9.86(40%), -9.82(60%, 80%)

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Ag+ sol alc/w 25°C 50% U I K<sub>1</sub>=4.64 B<sub>2</sub>=7.36 1967AB<sub>d</sub> (4108) 481  
 K<sub>so</sub>=-11.11

Medium: 50% EtOH. K<sub>1</sub>=3.32(0%), 3.66(10%), 3.79(20%), 4.27(40%); B<sub>2</sub>=5.26(0%), 5.58(10%), 5.82(20%), 6.82(40%); K<sub>so</sub>=-9.76(0), -10.04(10), -10.22(20), -10.77(40)

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Ag+ ISE non-aq 25°C 100% U B<sub>2</sub>=16.3 1967AK<sub>a</sub> (4109) 482  
 K<sub>so</sub>=-14.5

Medium: DMF. In MeCN: K<sub>so</sub>=-12.9, B<sub>2</sub>=13.4; in Me<sub>2</sub>NCOMe: K<sub>so</sub>=-11.9, B<sub>2</sub>=16.1 etc

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Ag+ ISE non-aq 438°C 100% U K<sub>1</sub>=4.72 1967BL<sub>b</sub> (4110) 483  
 Medium: molten NaNO<sub>3</sub>. x units

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Ag+ ISE oth/un 25°C 1.0M U 1967BP<sub>f</sub> (4111) 484  
 B<sub>4</sub>=5.16

---

Ag+ ISE non-aq 25°C 100% U K<sub>1</sub>=15.15 B<sub>2</sub>=20.87 1967BU<sub>a</sub> (4112) 485  
 B<sub>3</sub>=23.39  
 K<sub>so</sub>=-19.87

Medium: propene carbonate, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>. Neglecting ion pair formation: K<sub>1</sub>=15.15, B<sub>2</sub>=21.18, B<sub>3</sub>=23.4, K<sub>so</sub>=-20.18

---

Ag+ ISE non-aq 264°C 100% U T H 1967FB<sub>b</sub> (4113) 486  
 K<sub>so</sub>=-5.70

Medium: (Li/Na)ClO<sub>4</sub>. K<sub>so</sub>=-6.42(220 C), 5.94(250 C)  
 DH(K<sub>so</sub>)=80.7 kJ mol<sup>-1</sup>

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Ag+ ISE diox/w 25°C 20% U 1967FL<sub>a</sub> (4114) 487  
 K<sub>so</sub>=-10.216

Ag+	ISE alc/w	25°C	10%	U	I		1967FLb	(4115)	488
						Kso=-9.963			
	Medium: 10% MeOH. Kso=-10.780 in 43.12% MeOH, m units								
Ag+	ISE non-aq	75°C	100%	U	T	B2=9.42	1967RPC	(4116)	489
						Kso=-8.49			
	Medium: DMSO. Kso=-9.66(25 C), -9.25(45 C), 8.92(55 C); B2=10.59(25 C), 10.23(45 C), 9.92(55 C)								
Ag+	sol non-aq	275°C	100%	U	T	B2=3.21	1967SPc	(4117)	490
						B3=2.65			
						B(Ag2L)=2.79			
						B(Ag3L)=2.54			
	Medium: (Na/K)NO3. At 300 C: B2=3.04, B3=2.38, B(Ag2L)=2.71, B(Ag3L)=2.08								
Ag+	ISE non-aq	350°C	100%	U	TI	K1=2.62	1966BBg	(4118)	491
	Medium: (K/Ca)NO3, K1=2.71(320 C). K1=2.53(350 C) in (K/Sr)NO3								
Ag+	oth non-aq	210°C	100%	U			1966JRa	(4119)	492
						B(Ag2Cl)=1.08			
	Method: freezing point. Medium: molten AgNO3. x units								
Ag+	ISE non-aq	23°C	100%	U		B2=12.0	1966LIb	(4120)	493
						Kso=-10.4			
	Medium: DMSO, 0.1 M Et4NClO4. In MeCN: Kso=-12.4, B2=13.0. In MeOH: Kso=-13.0 B2=7.9, In acetone: Kso=-16.4, B2=16.7. In EtNO2: Kso=-21.1, B2=22.3								
Ag+	dis oth/un		0.0	U			1966LKa	(4121)	494
						Kd(Ag+2Cl+H+3TBP(C6H6))=5.39			
Ag+	ISE non-aq	350°C	100%	U	T	K1=2.60	1966SEa	(4122)	495
	Medium: (K/Ba)NO3 eutectic. K1=2.51(370 C), 2.46(390 C)								
Ag+	ISE non-aq	350°C	100%	U			1965ASa	(4123)	496
						Kso=-3.8			
	Medium: (Na/K)NO3 eutectic, m units								
Ag+	ISE non-aq	150°C	100%	U			1965BFc	(4124)	497
						Kso=-7.4			
	Medium: (Li/K)NO3 eutectic, m units								
Ag+	dis oth/un		0.0	U			1965KLb	(4125)	498
						Kd(H+Ag+2Cl+3TBP(C6H6))=5.37			
Ag+	ISE non-aq	25°C	100%	U			1965MBd	(4126)	499
						Kso=-4.04			
	Medium: diaminoethane								
Ag+	sol NaClO4	20°C	4.0M	U		K1=3.45	B2=5.67	1964AJa	(4127) 500

B3=6.00  
B4=6.04  
Kso=-10.40

-----  
Ag+ ISE non-aq 240°C 100% U K1=2.93 1964BBc (4128) 501  
Medium: molten MNO3. x units  
-----

Ag+ cal non-aq 320°C 100% U H 1964HKb (4129) 502  
Medium: molten (Na/K)NO3 eutectic. DHso=79.0 kJ mol-1  
-----

Ag+ sol non-aq 18°C 100% U B2=8.92 1964PKc (4130) 503  
Kso=-10.39  
Medium: MeNHCHO. In medium NH2CHO: Kso=-8.28  
-----

Ag+ sol non-aq 600°C 100% U 1964SFb (4131) 504  
Kso=-6.34  
K(AgCl(s)=AgCl)=-3.89  
K(AgCl(s)+Cl=AgCl2)=-1.80  
Ks(AgCl(s)+Ag)=-1.96  
Medium: molten NaNO3. x units  
-----

Ag+ ISE non-aq 713°C 100% U T K1=2.70 1964TBa (4132) 505  
Medium: molten CsNO3. Data also in different nitrate melts  
-----

Ag+ ISE non-aq 225°C 100% U K1=1.98 B2=1.2 1964THc (4133) 506  
Medium: (Li/K)NO3, m units  
-----

Ag+ sol NaClO4 25°C 0.50M U I 1964WGa (4134) 507  
Kso=-9.62  
Medium: HClO4. Kso=-10.05(I=3 M)  
-----

Ag+ ISE non-aq 350°C 100% U T H 1963BBd (4135) 508  
Kso(AgCl(s))=-6.06  
Medium: liquid KNO3, I=0 corr. Kso=-5.86(370 C), -5.72(385 C), -5.55(402 C),  
-5.26(436 C); DH(Kso)=80.3 kJ mol-1. x units ?  
-----

Ag+ ISE non-aq 250°C 100% U T 1963RSc (4136) 509  
Kso=-5.27  
Medium: liquid (Na/K)NO3. Kso=-4.36(320 C). Kso=2.47-4050/T  
Ks(AgCl(s)=AgCl)=-8.47+3000/T, K1=7000/T-10.85  
-----

Ag+ ISE non-aq 148°C 100% U T 1963THa (4137) 510  
Kso=-9.31  
Medium: liquid (Li,K)NO3. Kso=-8.84(172 C), -8.34(194.5 C), -8.03(211.5 C)  
-----

Ag+ ISE non-aq 385°C 100% U K1=2.66 B2=4.89 1962BLb (4138) 511  
K(AgL+Ag)=1.3  
Medium: liquid KNO3, x units  
-----

Ag+ ISE non-aq ? 100% U 1962BSa (4139) 512

$$K_{so}(AgCl(s)) = -16.5$$

Medium: THF, 0.3 M LiClO<sub>4</sub>

Ag+ ISE non-aq 350°C 100% U T K1=2.74 B2=5.07 1962MBd (4140) 513  
Medium: liquid KNO<sub>3</sub>. K1=2.50, K2=2.07(436 C), x units

Ag+ sol NaCl 18°C var U K1=3.44 B2=5.30 1962MIb (4141) 514  
B3=5.48  
B4=5.40  
K<sub>so</sub>((AgCl(s)))=-10.06  
K<sub>s</sub>(AgCl(s)=AgCl)=-6.63

K<sub>s</sub>(AgCl(s)+Cl=AgCl<sub>2</sub>)=-4.76, K<sub>s</sub>(AgCl(s)+2Cl=AgCl<sub>3</sub>)=-4.58,  
K<sub>s</sub>(AgCl(s)+3Cl=AgCl<sub>4</sub>)=-4.67

Ag+ ISE non-aq 350°C 100% U I 1961ASa (4142) 515  
K<sub>so</sub>=-3.75

Medium: NaNO<sub>3</sub>(liquid). K<sub>so</sub>=-3.79 in KNO<sub>3</sub>, K<sub>so</sub>=3.82 in (Na,K)NO<sub>3</sub>(liquid)

Ag+ sp non-aq 25°C 100% U K1=4.08 1961B0a (4143) 516  
Medium: pyridine

Ag+ ISE non-aq 370°C 100% U T H K1=1.70 B2=2.93 1961DGc (4144) 517  
Medium: KNO<sub>3</sub>(liquid). K1=1.45, K2=1.08 (436 C). DH(K1)=-33.3 kJ mol<sup>-1</sup>,  
DH(K2)=-20.6

Ag+ ISE non-aq 333°C 100% U T H K1=1.55 B2=2.68 1961DGc (4145) 518  
Medium: (Na,K)NO<sub>3</sub>(liquid). K1=1.45, K2=0.95(374 C). DH(K1)=-18.4 kJ mol<sup>-1</sup>,  
DH(K2)=-32.3

Ag+ ISE non-aq 374°C 100% U I K1=1.25 B2=2.08 1961GDa (4146) 519  
Medium: liquid NaNO<sub>3</sub>. In liquid KNO<sub>3</sub> K1=1.65, K2=1.26. Data also in mixtures

Ag+ ISE non-aq 233°C 100% U T K1=3.02 1961HBb (4147) 520  
Medium: (NaK)NO<sub>3</sub>(liquid). K1=2.81(278 C), 2.48(385 C), 2.26(479 C),  
2.12(528 C), x units

Ag+ sol NaClO<sub>4</sub> 25°C 0.10M U K1=3.08 B2=5.08 1961K0c (4148) 521

Ag+ ISE R4N.X 25°C 1.0M U 1961LPa (4149) 522  
K<sub>so</sub>(AgCl(s))=-9.31

Ag+ sol non-aq 280°C 100% U K1=1.94 B2=2.80 19610Ka (4150) 523  
Medium: (NaK)NO<sub>3</sub>(liquid), m units

Ag+ ISE non-aq 25°C 100% U K1=3.54 1961SBb (4151) 524  
Medium: diaminoethane

Ag+ sol NaCl 300°C var U B2=4.3 1960GAb (4152) 525  
K<sub>so</sub>(AgCl(s))=-5.32  
K<sub>s</sub>(AgCl(s)+Cl=AgCl<sub>2</sub>)=-1



Ag+	ISE non-aq	331°C	100%	U T	K1=2.44	1960HBa (4153)	526
Medium: KNO <sub>3</sub> (liquid). K1=2.35(364 C), 2.31(385 C), 2.25(402 C), 2.20(423 C), 2.16(438 C), 2.04(500 C). x units							
Ag+	cal non-aq	158°C	100%	U H	Kso(AgCl(s))=-7.56	1960JMa (4154)	527
Medium: (Li,K)NO <sub>3</sub> (liquid). DH(Kso)=79.1 kJ mol <sup>-1</sup> , DS=39 J K <sup>-1</sup> mol <sup>-1</sup>							
Ag+	sol none	20°C	0.0	U	K1=3.30 B(Ag <sub>2</sub> Cl)=4.60 B(Ag <sub>3</sub> Cl)=4.96	1960LIa (4155)	528
Ag+	sol none	25°C	0.0	U	B2=5.24 B4=6.14	1957CHd (4156)	529
Ag+	sol none	18°C	0.0	U	K1=3.41 B2=5.29 K3=-0.05 Kso(AgCl(s))=-10.05	1957LIa (4157)	530
Ag+	ISE non-aq	250°C	100%	U H	Kso(AgCl(s))=-5.28	1956FRb (4158)	531
Medium: (Na/K)NO <sub>3</sub> (liquid). DH(Kso)=76.6 kJ mol <sup>-1</sup> , DS=42.2 J K <sup>-1</sup> mol <sup>-1</sup> , m unit							
Ag+	ISE oth/un	25°C	var	U	Kso(AgCl(s))=0.40-3000/T	1956KLa (4159)	532
15-80 C. DH(Kso)=57.3 kJ mol <sup>-1</sup> (misprint ?)							
Ag+	con none	25°C	0.0	U	Kso(AgCl(s))=-9.75	1955DJb (4160)	533
Ag+	sol NaCl	25°C	var	U	B2=5.34 K3=0.37 K4=-0.41	1955KNa (4161)	534
Ag+	sol oth/un	25°C	var	U I	B2=5.34 K3=0.31 K4=-0.42	1955KNa (4162)	535
Medium: HCl. In NaCl B2=5.49							
Ag+	ix none	30°C	0.0	U	K2=2.48 K3=0.88 K4=-0.92	1955MAa (4163)	536
Ag+	con none	25°C	0.0	U T	Kso(AgCl(s))=-9.75	1954GMa (4164)	537
I=0 corr. Kso=-10.59(5C), -10.15(15C), -9.38(35 C), -9.03(45 C), -8.67(55 C)							
Ag+	sol oth/un	25°C	var	U I	K1=3.52 K3=0.23	B2=5.40 1954KTa (4165)	538

$$K(\text{AgCl}(s) + \text{Cl}^- = \text{AgCl}_2^-) = -4.35$$

$K_s(\text{AgCl(s)} + 2\text{Cl} = \text{AgCl}_3) = -4.12$ .  $K_s(\text{AgCl(s)} + 3\text{Cl} = \text{AgCl}_4) = -4.52$ . Also  $B(\text{Ag}_2\text{Cl}) = 5.20$   
 $B(\text{Ag}_3\text{Cl}) = 5.45$ . Also values in EtOH/H<sub>2</sub>O, MeOH, acetone

Ag+	sol oth/un	20°C	var	U	1954K	Ta	(4166)	539
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B3=5.59

$$K4 = -0.51$$

Medium HCl

Ag+ sol NaCl04 25°C 5.0M U I K1=3.70 B2=5.62 1954KTa (4167) 540

$$K_3 = 0.78$$

$$K_4 = -0.32$$

I=0.2 M NaClO4: B2=4.87

Ag+ sol NaClO4 25°C 5.0M U I K1=3.08 B2=5.40 1953BLb (4168) 541

$K_3 = 0.75$

$$K_4 = -0.85$$

$$K_{so}(AgCl(s)) = -10.10$$

$$K_s(\text{AgCl}(s) = \text{AgCl}) = -7.00$$

$K_s(\text{AgCl}(\text{s}) + \text{Cl} = \text{AgCl}_2) = -4.70$ ,  $K_s(\text{AgCl}(\text{s}) + 2\text{Cl} = \text{AgCl}_3) = -3.85$ ,  $K_s(\text{AgCl}(\text{s}) + 3\text{Cl} = \text{AgCl}_4) = -4.52$ . Data also at  $I=0.2$  and  $I=0$  corr. and other values

Ag+	con	none	25°C	0.0	U	1952G	Ma	(4169)	542
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$$K_{so}(\text{AgCl}(s)) = -9.75$$

Ag+ sol none 25°C 0.0 U T H K1=3.31 B2=5.25 1952JMc (4170) 543

$$K_s(\text{AgCl}(s) = \text{AgCl}) = -6.44$$

$$K_s(\text{AgCl}(s) + \text{Cl}^- = \text{AgCl}_2^-) = -4.51$$

$$K_{so}(\text{AgCl}) = -9.74$$

I=0 corr. 15 C: K1=3.36, K2=1.97. 35 C: K1=3.23, K2=1.91

$\Delta H(K1) = -11 \text{ kJ mol}^{-1}$ ,  $\Delta S = 25 \text{ J K}^{-1} \text{ mol}^{-1}$ ;  $\Delta H(K2) = -5.0$ ,  $\Delta S(K2) = 21$

Ag+ sol NaClO4 25°C 5.0M U 1952LEb (4171) 544

B3=6.15

$$K_4 = -0.83$$

$$K_s(\text{AgCl}(s) + 2\text{Cl}^- = \text{AgCl}_2^-) = -3.82$$

$$K_s(\text{AgCl(s)} + 3\text{Cl}^- = \text{AgCl}_4^-) = -4.52$$

By Ag electrode B2=6.20, K4=-1.16, Kso=-9.98

Ag+	sol oth/un	25°C	dil	U	B2=5.66	1951BAa	(4172)	545
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Ag+            con none    25°C   0.0   U                                  1949CJa   (4173) 546

$$K_{so}(\text{AgCl}(s)) = -9.74$$

Ag+	sol	none	25°C	0.0	U	1942GNa	(4174)	547
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$$K_s(\text{AgCl}(s) + 2\text{Cl}^- = \text{AgCl}_2^-) = -3.89$$

Ag+	sol oth/un	25°C	var	U	H	1941ESa	(4175)	548
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B4=5.90

Medium HCl. DH(B4)=-59 kJ mol<sup>-1</sup>. Alternative value: B4=5.23

-----  
Ag+ ISE none 25°C 0.0 U T H 19380Ba (4176) 549

Kso(AgCl(s))=-9.749

I=0 corr. DH(Kso)=65.5 kJ mol<sup>-1</sup>, DS=33.1 J K<sup>-1</sup> mol<sup>-1</sup>. Kso=-10.595(5 C),  
-10.152(15 C), -9.381(35 C), -9.043(45 C)

-----  
Ag+ oth none 25°C 0.0 U 1938PSa (4177) 550

Kso(AgCl(s))=-9.79

Method: tyndallometry,nephelometry, I=0 corr.

-----  
Ag+ sol none 25°C 0.0 U 1936PHa (4178) 551

Ks(AgCl(s)=AgCl)=-6.85

K(AgCl(s)+Cl=AgCl2)=-4.56

-----  
Ag+ ISE none 25°C 0.0 U 1935BMa (4179) 552

Kso(AgCl)=-9.76

-----  
Ag+ con none 25°C 0.0 U 1933DKa (4180) 553

Kso(AgCl)=-9.72

-----  
Ag+ ISE none 25°C 0.0 U 1933HJa (4181) 554

Kso(AgCl)=-9.71

-----  
Ag+ oth none 25°C 0.0 U 1932NEa (4182) 555

Kso(AgCl)=-9.79

Method:y tyndallometry,nephelometry, I=0 corr.

-----  
Ag+ ISE oth/un 20°C var U 1930BRa (4183) 556

Kso(AgCl)=-9.79

-----  
Ag+ EMF oth/un 25°C dil U T 1930HKa (4184) 557

Kso(AgCl)=-9.74

Kso=-10.12(15 C), -9.21(40 C)

-----  
Ag+ ISE alc/w 25°C 100% U 1929BHa (4185) 558

Kso(AgCl)=-13.05

Medium: MeOH

-----  
Ag+ ISE none 16°C 0.0 U 1927CAa (4186) 559

Kso(AgCl)=-10.03

-----  
Ag+ sol oth/un 25°C var U 1921FCa (4187) 560

B2=5.64  
K(AgCl(s)=AgCl)=-6.21

K(AgCl(s)+Cl=AgCl2)=-4.47

-----  
Ag+ con none 18°C 0.0 U T 1910MEa (4188) 561

Kso(AgCl)=-9.96

I=0 corr. Kso=-8.88(50 C), -7.67(100 C)

Ag+	con	oth/un	100°C	dil	U				1906B0a	(4189)	562
Kso(AgCl)=-7.63											
Ag+	sol	KCl	25°C	4.0M	U				1904BEa	(4190)	563
B4=5.70											
Ag+	con	oth/un	20°C	dil	U				1903B0b	(4191)	564
Kso(AgCl)=-9.95											
Ag+	ISE	oth/un	25°C	var	U				1900THa	(4192)	565
Kso(AgCl)=-9.70											
Ag+	con	oth/un	26°C	dil	U T				1893H0a	(4193)	566
Kso(AgCl)=-9.48											
Kso=-10.02(13.8 C)											
*****											
ClO3-		HL		Chlorate					CAS 7790-93-4	(971)	
Chlorate;											
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo	
Ag+	con	none	25°C	0.0	U			K1=0.22	1947J0a	(6023)	567
*****											
ClO4-		HL		Perchlorate					CAS 7001-90-3	(287)	
Perchlorate;											
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo	
Ag+	dis	non-aq	25°C	100%	C			K1=5.05	2001DGa	(6123)	568
Medium: dichloromethane											
Ag+	con	mixed	25°C	20%	C			K1=0.80	1994SSb	(6124)	569
Medium:20% w/w propylene carbonate/ethylene carbonate.											
Ag+	con	none	30°C	0.0	C	I		K1=-0.10	1990GKd	(6125)	570
Also data for 20-100% w/w DMSO/H2O.											
Ag+	con	none	30°C	0.0	C	I		K1=-0.08	1986SKf	(6126)	571
Data for 0.001-0.008 M AgBrO3 in 0-100% AN/H2O or MeOH/AN mixtures. In 100% acetonitrile, K1=1.30											
Ag+	ISE	mixed	25°C	95%	U	I		K1=3.25	1983MSa	(6127)	572
Medium: THF/H2O mixtures. Proportion of THF varied from 95% to 77% (w/w)											
Ag+	EMF	mixed	25°C	0.10M	U	I		K1=3.8	1970DCa	(6128)	573
Medium: dimethoxy-1,2-ethane, 0.1 M H2O. K1=4.0(H2O concentration:0.01)											
Ag+	dis	NaClO4	25°C	3.0M	U				1960ADa	(6129)	574
Kd(Ag+2A(benzene)+L=AgLA2(benzene). A=quinoline											

-----  
 Ag+ con non-aq 25°C 100% U I K1=3.06 1958GLb (6130) 575  
 Medium: cyclohexanone. In i-BuOH K1=2.83. Data also in mixtures  
 In Me2CO: K1=3.27

\*\*\*\*\*

CrO4-- H2L Chromate CAS 7738-94-5 (2382)  
 Chromate;

-----  
 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ oth none 35°C 0.00 U T H 1971JLa (6454) 576

Kso=-11.24

5 C: Kso=-12.34; 25 C: Kso=-11.56; 45 C: Kso=-10.95; 60 C: Kso=-10.57;  
 80 C: Kso=-10.14. DH(Kso)=93.59-3.93x10-5T\*\*2, DS=209.79-0.79T (in kilocal)

-----  
 Ag+ ISE non-aq 357°C 100% U T K1=1.69 1963AHa (6455) 577  
 Medium: KNO3(liquid); K1=1.62(377 C), 1.58(410 C), 1.54(450 C), 1.51(490 C);  
 in x units

-----  
 Ag+ ISE oth/un 357°C 100% U T K1=1.69 1963AHa (6456) 578  
 Medium: KNO3(liquid); K1=1.62(377 C), 1.58(410 C), 1.54(450 C), 1.51(490 C)

-----  
 Ag+ cal oth/un 158°C 100% U H 1960JMa (6457) 579

Kso=-7.96

Medium: (Li,K)NO3(liquid,eutectic) DH(Kso)=70 kJ mol-1, DS=8 J K-1 mol-1

-----  
 Ag+ con none 25°C 0.0 U 1957HNa (6458) 580

Kso=-11.61

-----  
 Ag+ ISE oth/un 250°C 100% U 1956FRb (6459) 581

Kso=-6

Medium: (NaK1)NO3(liquid); in m units

-----  
 Ag+ ISE none 25°C 0.0 U T H 1954PAa (6460) 582

Kso=-11.89

DH(Kso)=60.7 kJ mol-1(25 C); Kso=-12.10(20 C), -11.72(30 C), -11.39(40 C)

-----  
 Ag+ ISE none 20°C 0.0 U 1941MUa (6461) 583

Kso=-12.15

-----  
 Ag+ ISE none 25°C 0.0 U 1935Cma (6462) 584

Kso=-11.89

-----  
 Ag+ ISE none 25°C 0.0 U 1935Cma (6463) 585

Kso=-11.81

-----  
 Ag+ ISE none 25°C 0.0 U 1935Cma (6464) 586

Kso=-11.95

-----  
 Ag+ ISE none 25°C 0.0 U 1932HJa (6465) 587

$$K_{SO} = -11.39$$

Ag+      con none    18°C   0.0   U T                          1923B0a   (6466) 588

$$K_{SO} = -11.80$$
$$K_{so} = -12.52(0.26 \text{ } ^\circ\text{C}), -11.92(14.8 \text{ } ^\circ\text{C}), -11.32(30.8 \text{ } ^\circ\text{C}), -11.07(37.3 \text{ } ^\circ\text{C}), -10.55(75 \text{ } ^\circ\text{C})$$

Ag+ sol oth/un 25°C dil U 1907SHa (6467) 589

$K_{SO} = -11.05$

Ag+	sol oth/un	25°C	dil	U	1905SAb	(6468)	590
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$$K_{SO} = -11.58$$

\*\*\*\*\*

F- Fluoride;	HL	Fluoride	CAS 7644-39-3 (201)
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ ISE NaClO4 25°C 1.00M C I K1=-0.52 1984HCa (6627) 591  
Also in 1.0 M NaNO3 (K1=-1.0) and 1.0 M KNO3 (K1=-0.39).

Ag+ ISE NaNO3 16°C 0.50M U K1=-0.4 1970B0a (6628) 592

Ag+	EMF	non-aq	0°C	100%	U	K1=1.06	1966CPb	(6629)	593
Medium:HF									

Ag+ ISE NaCl04 25°C 0.50M U T H 1961CPC (6630) 594  
K(Ag+HF=AgF+H)=-0.17

\*K1=-0.11(15C), \*K1=-0.25(35C). At I=0 corr: K1=0.38  
DH(K1)=-12 kJ mol<sup>-1</sup>, DS=-42J K<sup>-1</sup> mol<sup>-1</sup>

Ag+ ISE NaCl04 25°C 0.50M U TIH K1=-0.19 1955PAa (6631) 595  
K1=-0.12(15 C), K1=-0.26(35 C). DH(K1)=-10.0 kJ mol<sup>-1</sup>, DS=-38 J K<sup>-1</sup> mol<sup>-1</sup>  
At I=0 corr: K1=0.36, DS(K1)=-29

Ag+ ISE NaClO4 25°C 1.00M U K1=-0.32 1952LMa (6632) 596

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FCIBrI HL (541)  
Halides, comparative (for book data under ligand 80)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ ISE non-aq 20°C 100% U B2=19.5 1968BBb (7380) 597  
Kso(AgCl)=-19.2

Medium: MeNO<sub>2</sub>, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>. K<sub>so</sub>=-19.7(Br), -20.5(I), -16.9(SCN), <-24(CN); B<sub>2</sub>=19.7(Br), 22.0(I), 16.4(SCN), >34(CN)

Ag+ ISE non-aq 438°C 100% U 1967BLb (7381) 598  
K(AgCl2+AgBr2=2AgClBr)=0.71

Medium: molten  $\text{NaNO}_3$

Ag+ sol NaClO4 25°C 7.0M U M 1962FSb (7382) 599  
 B(AgCl2I)=7.57  
 B(AgBr2I)=12.31  
 B(AgBrI2)=13.47  
 B(AgBr(I3))=13.83

Ag+ ISE none 25°C 0.0 U M 1957CHc (7383) 600  
 B(AgClBr3)=9.48  
 B(AgCl3Br)=7.91

\*\*\*\*\*

H2O L Water CAS 7732-18-5 (6115)  
 Water

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
 Ag+ oth non-aq 25°C 100% U K1=0.70 B2=0.85 1974BLa (7567) 601  
 Method:partial pressure. Medium:propene carbonate. By N.M.R., K1=0.68

Ag+ ISE alc/w 25°C 100% U K1=0.0 1924LAa (7568) 602  
 Medium: EtOH

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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
 Ag+ sol none 25°C 0.0 C IH B2=14.8 2003WAa (7691) 603  
 Kso(AgCl)=-15.96  
 Method: analysis of literature data. DH(Kso)=112.5 kJ mol-1. Also Kso=-17.7 (methanol), -14.5 (acetonitrile), -12.0 (DMSO). B2=13.0 (DMSO).

Ag+ ISE non-aq 25°C 100% U I K1=10.60 B2=15.75 1994GSa (7692) 604  
 K3=0.85  
 B3=16.60  
 B(Ag2L4)=32.41  
 B(Ag5L7)=77.70  
 Medium: DMF. B(Ag6L8)=91.39

Ag+ ISE non-aq 25°C 100% U I K1=7.97 B2=12.72 1994GSa (7693) 605  
 B(Ag2L4)=27.26  
 B(Ag4L6)=51.63  
 B(Ag5L7)=64.63  
 B(Ag6L8)=76.31  
 Medium: DMSO

Ag+ ISE non-aq 25°C 100% C K1=21.44 1988CCd (7694) 606  
 Medium: propylene carbonate

Ag+ ISE non-aq 185°C 100% M K1=0.42 B2=0.80 1988JHb (7695) 607  
 Medium: molten KSCN. K1=mol-1 kg

-----  
 Ag+ EMF non-aq 25°C 100% U B2=21.59 1987CCb (7696) 608  
 B3=23.85  
 \*B(3,4)=64.62  
 \*B(3,6)=70.75  
 \*B(8,1,2)=183.24

Medium: propylene carbonate

-----  
 Ag+ ISE non-aq 25°C 100% U IH K1=7.86 B2=11.27 1987JPa (7697) 609  
 Medium: tetrahydrothiophene, 0.1M Bu4NBF4

-----  
 Ag+ ISE non-aq 25°C 100% C H K1=6.87 B2=10.07 1986AIb (7698) 610  
 Medium: Pyridine, 0.1 M Et4NClO4; DH(K1)=-12.3, DH(K2)=3.8 kJ mol<sup>-1</sup>

-----  
 Ag+ ISE non-aq 25°C 100% C H K1=6.87 B2=10.08 1986AIb (7699) 611  
 B(Ag2+I)=9.12  
 Medium: DMSO, 0.1 M NH4ClO4. DH(K1)=-12.3; DH(B2)=-8.5 kJ mol<sup>-1</sup>;  
 DH(Ag2I)=-13.0

-----  
 Ag+ ISE non-aq 25°C 100% U K1=7.97 B2=12.72 1985GAc (7700) 612  
 B(Ag2L4)=27.26  
 B(Ag4L6)=51.83  
 B(Ag5L7)=64.63  
 B(Ag6L8)=76.31

Medium: DMSO, 0.5 M KNO3.

-----  
 Ag+ ISE KNO3 0°C 1.00M U K1=9.47 1985MMc (7701) 613

-----  
 Ag+ ISE KNO3 25°C 1.00M U T HM 1985MMd (7702) 614  
 DH(K1)=-35.8 kJ mol<sup>-1</sup>; DH(B2)=-60.6; DS(K1)=-69.8 J K<sup>-1</sup> mol<sup>-1</sup>; DS(B2)=-28.2  
 Ternary complexes with: thiourea, thiosulphate, chloride

-----  
 Ag+ EMF KNO3 20°C 1.0M C M K1=10.19 B2=12.46 1984DBb (7703) 615  
 B(Ag(tu)I)=12.12  
 B(Ag(tu)I2)=14.12  
 B(Ag(ts)I)=12.67

tu is thiourea. ts is thiosulfate. Method: Ag/Ag+ electrode.

-----  
 Ag+ ISE non-aq 25°C 100% U I 1981CLa (7704) 616  
 B2eff=26.1  
 Kso=-24.0

Medium: methylisobutylketone. Data available for water equilibrated MIBK

-----  
 Ag+ ISE non-aq 25°C 100% U B2=14.49 1975SAb (7705) 617  
 Kso=-13.73

Medium: propylene carbonate/0.09 M tetrahydrothiophene

-----  
 Ag+ ISE non-aq 25°C 100% U I B2=12.33 1975SAb (7706) 618  
 Kso=-10.93

Medium: propylene carbonate/0.56 M tetrahydrothiophene



In propionitrile/0.01 , B2=13.8, B3=15.8, Kso=-11.1

---

Ag+ ISE non-aq 25°C 100% U I B2=18.0 1975SAc (7707) 619  
Kso=-16.7

Medium: PC/TMSO, 1.23 M. In dimethylsulfite: Kso=-20.5, B2=19.0.

In ethylene sulfite: B2=21.2, Kso=-21.1. TMSO=Tetramethylene sulfoxide

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Ag+ ISE mixed 25°C 9% U I K2=1.87 1974ABa (7708) 620  
K3=2.46  
B(Ag2I)=13.16  
Kso=-16.19

Medium: 9% w/w acetone/H2O. In 19.8% acetone/H2O, K2=3.07, K3=1.45, B(Ag2I)=13.04. Solubility data for differing media strengths also given

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Ag+ ISE alc/w 25°C 9.6% U I K2=2.69 1974ABa (7709) 621  
K3=1.52  
B(Ag2I)=13.87  
Kso=-16.50

Medium: 9.6% w/w EtOH/H2O. In 19.8% EtOH, K2=2.20, K3=2.10, B(Ag2I)=14.17  
Solubility constants and data for differing media strengths also available

---

Ag+ ISE alc/w 25°C 9.5% U I K2=1.92 1974ABa (7710) 622  
K3=2.24  
B(Ag2I)=13.87  
Kso=-16.74

Medium: 9.5% MeOH/H2O. In 19.9% MeOH. K2=2.33, K3=2.94, B(Ag2I)=14.34.  
Solubility constants and data for differing media strengths also available

---

Ag+ ISE diox/w 25°C 8.2% U IH K2=1.66 1974ABa (7711) 623  
K3=2.63  
B(Ag2I)=12.80  
Kso=-15.84

Medium: 8.2% dioxan/H2O. In 20.5%, K2=2.75, K3=1.75, B(Ag2I)=13.04.  
Solubility constants and data at differing media compositions also available

---

Ag+ EMF KNO3 50°C ? U IH Kso=-17.52 1974DGB (7712) 624

Medium: 10% NaNO3-Ca(NO3)2(H2O)4. DH(Kso)=102.1 kJ mol<sup>-1</sup>(0%), 102.6(10%), 98.5(20%); Kso=-17.45(0%), -17.58(20%) x units

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Ag+ EMF non-aq ? 100% U K(AgI(s)+LiI=LiAgI2)=2.8 1974FCa (7713) 625

Medium: THF

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Ag+ EMF non-aq 30°C 100% U K1=6.55 B2=9.40 1974JAc (7714) 626  
Medium: pyridine, 0.2 M LiClO4; m units

---

Ag+ ISE non-aq 25°C 100% U I B2=18.58 1974SAb (7715) 627  
Kso=-16.79

Medium: 3-Me-2-Oxazolidone, 0.1 M Pr4NC104

Ag+	ISE mixed	25°C	80%	U	I	B2=17.09 Kso=-17.64	1974SAc	(7716)	628
Medium: 80% acetone/H2O. In 98.5% acetone, Kso=-20.21, B2=21.34, B3=22.79 In 91.2% acetone, Kso=-18.70, B2=18.96; 100%: Kso=-23.0, B2=24.4									
Ag+	EMF non-aq	87°C	100%	U		Kso=-10.92	1973BMc	(7717)	629
Medium: CH3COONa(liquid); m units									
Ag+	ISE none	25°C	0.0	U		Kso=-16.0	1973BRa	(7718)	630
Ag+	EMF non-aq	25°C	100%	U		B2=15.6 B(Ag2I3)=30.3 Kso=-15.0	1973CCa	(7719)	631
Medium: MeCN, m units									
Ag+	sol non-aq	280°C	100%	U		B3=7.38 B4=7.56 B(Ag2L6)=16.2	1973H0a	(7720)	632
Medium:(Na,K)NO3; m units									
Ag+	ISE non-aq	280°C	100%	U		B2=6.5 B3=7.36 B4=6.5 B(Ag2I6)=16.3	1973H0b	(7721)	633
Medium:(Na,K)NO3; m units									
Ag+	ISE alc/w	25°C	10%	U	I	Kso=-16.2	1973KPa	(7722)	634
In 10% v/v MeOH/H2O;Kso=-15.96(=0%), -16.5(40%), -16.8(60%), -17.4(90%); Also in EtOH, PrOH, i=PrOH, acetone, DMF. In PrOH:Kso=-16.1(10%), -16.3(40%)									
Ag+	ISE mixed	25°C	10%	U	I	Kso=-16.1	1973KPa	(7723)	635
In 10% v/v acetone/H2O;Kso=-16.1(20%), -16.1(30%), -16.1(40%) In DMF: Kso=-16.0(10%), -15.8(40%), -15.4(60%)									
Ag+	ISE diox/w	20°C	50%	U	I	Kso=-16.83	1973NEa	(7724)	636
Medium: 50% v/v dioxan-H2O, 0.001 M KI; Kso=-17.80(70%), -18.59(80%), -19.32(90%)									
Ag+	ISE non-aq	25°C	100%	U	I	B2=12.58 Kso=-13.41	1973SSg	(7725)	637
in (propionitrile + y M SO2), 0.1 M Pr4NClO4 at y=0.95. B2=17.25, Kso=-16.08(y=0); B2=10.07, Kso=-12.39(y=3.3)									

Ag+ EMF non-aq 25°C 100% U I 1972BGa (7726) 638  
Kso=-16.7  
Medium: ethylene glycol.In diMeacetamide: B2=17.8, B(Ag3L4)=48.9, Kso=-15.30  
-----

Ag+ ISE oth/un 50°C ? U T H 1972BNa (7727) 639  
Kso=-17.39  
Medium: Ca(NO3)2(H2O)4. DH(Kso)=113 kJ mol<sup>-1</sup>; Kso=-16.56(65 C), -16.21(70 C),  
-16.12(75 C), -15.83(80 C) x units  
-----

Ag+ ISE non-aq 25°C 100% U B2=12.59 1972GSd (7728) 640  
B3=13.45  
B(Ag6I8)=75.33  
Medium: DMSO, 0.5 M KNO3  
-----

Ag+ ISE mixed ? 2.7% U 1972KPa (7729) 641  
Kso=-16.2  
In 2.7 to 14.7% acetone/H2O. In DMF/H2O: Kso=-15.96(0-2.6%), -15.76(13.3%),  
-15.34(25.9%)  
-----

Ag+ EMF non-aq 142°C 100% U 1971BMb (7730) 642  
Kso=-8.62  
Medium: NH4SO3NH2; m units  
-----

Ag+ EMF non-aq 30°C 100% U B2=14.8 1971BPb (7731) 643  
B(Ag3I4)=41.7  
Kso=-14.4  
Medium: 2-pyrrolidinone, 0.1 M Et4NClO4  
-----

Ag+ EMF mixed 25°C 60% U I B2=12.5 1971Cma (7732) 644  
B(Ag2L3)=25.2  
B(Ag3L4)=36.7  
Kso=-12.2  
Medium: 60% DMSO/H2O, 0.1 M Et4NClO4. B2=12.6(70%), 12.7(80-90%), 12.9(95%)  
B(Ag2L3)=24.3(80%), B(Ag3L4)=36.9(95%). Kso=-15.6(5%), -14.5(20%), -11.9(95%)  
-----

Ag+ EMF non-aq 350°C 100% U T 1971GJa (7733) 645  
Kso=-8.32  
Medium: (Na,Ba)NO3 eutectic. Kso=4.387-7895/T m units. 350-425 C  
-----

Ag+ ISE non-aq 150°C 100% U T K1=2.14 1971KIa (7734) 646  
Medium: C2H5NH3Cl; K1=2.11(170 C), 2.06(190 C), 1.95(210 C) unit:mol/mol sol  
-----

Ag+ sol alc/w 20°C 50% U I 1971NEa (7735) 647  
Kso=-16.40  
50% w/w MeOH/H2O; Kso=-16.96(70%), -17.24(80%), -17.64(90%), -18.00(100%)  
In PrOH/H2O: Kso=-16.42(50%), -16.96(70%), -18.08(90%). -19.38(100%)  
-----

Ag+ ISE non-aq 30°C 100% U I 1971QDa (7736) 648  
Kso=-16.7  
Medium: 13% N-methylacetamide/MeOH at I=0.1. Kso=-17.5(0%), -16.1(27%),

-15.4(40%), -14.9(63%), -14.6(84%), -14.3(100%). In MeOH, I=0.01: Kso=-18.0

---

Ag+	con	non-aq	20°C	100%	U	B2=13.0	1970DMa	(7737)	649
						B(Ag2I)=12.1			
						B(Ag3I4)=37.2			
						Kso=-12.1			

Medium: DMSO, 0.1 M Et4NClO4

---

Ag+	ISE	non-aq	22°C	100%	U	B2=22.8	1969CLa	(7738)	650
						B(Ag3I4)=66.9			
						Kso=-21.8			

Medium: propene carbonate, 0.1 M Et4NClO4

---

Ag+	sol	non-aq	280°C	100%	U	K1=3.62	B2=6.56	1969ELa	(7739)	651
						B3=7.46				
						Kso=-9.21				

Medium: (Na,K)NO3; m units. Using Ag ISE: B2=6.65, B3=7.54, Kso=-9.24

---

Ag+	ISE	NaNO3	50°C	1.0M	U T			1969GUa	(7740)	652
						Kso=-13.85				
						Kso=-13.36(60 C), -12.87(70 C), -12.39(80 C), -12.10(90 C)				

---

Ag+	ISE	non-aq	98°C	100%	U	B2=10.6	1969GUa	(7741)	653	
						B3=12.16				
						Kso=-11.95				

Medium: N-methylformamide, 1 M NaNO3

---

Ag+	EMF	non-aq	148°C	100%	U T H			1969SMh	(7742)	654
						Kso=-13.09				

Medium: (Li,K)NO3, 43% LiNO3; 148.5 C. Kso=-13.04(150 C), -12.31(172 C), -12.64(194.5 C) m units

---

Ag+	ISE	non-aq	25°C	100%	U	B2=16.7	1969VKa	(7743)	655	
						Kso=-14.4				

Medium: N-methyl-2-pyrrolidone

---

Ag+	ISE	non-aq	20°C	100%	U	B2=22.0	1968BBb	(7744)	656	
						Kso=-20.5				

Medium: CH3NO2

---

Ag+	ISE	non-aq	30°C	100%	U			1968DLa	(7745)	657
						Kso=-18.48				
						B(Ag3I4)=56.52				

Medium: sulpholan, 0.1 M Et4NClO4

---

Ag+	ISE	non-aq	350°C	100%	U H			1968GSf	(7746)	658
						Kso=-7.71				

Medium: (K/Ba)NO3 eutectic. DHso=137.2 kJ mol<sup>-1</sup>

---

Ag+	sp	non-aq	24°C	100%	U I			1968LAc	(7747)	659
-----	----	--------	------	------	-----	--	--	---------	--------	-----

B(Ag2L)=10.04

B(Ag3L)=10.61

Also solubility. Medium: DMSO, 0.5 M Et4NClO4. In MeCN: B(Ag2L)=9.11,  
B(Ag3L)=10.00; in acetone: B(Ag3L)=18.96

---

Ag+ oth alc/w 25°C 100% U 1968PAa (7748) 660

Kso=-18.3

Medium: MeOH

---

Ag+ ISE non-aq 428°C 100% U T K1=0.73 B2=1.55 1968WIb (7749) 661

Medium: molten (Li/K)Cl. At 450C: K1=0.63, B2=0; 476 C: K1=0.58, B2=0.8

---

Ag+ ISE alc/w 25°C 100% U I 1967AKa (7750) 662

Kso=-18.3

Medium:MeOH. In DMSO: Kso=-11.4,B2=12.5. In HCONH2:Kso=-14.5. In DMF:  
Kso=-15.8,B2=17.8. In Me2NCOMe: Kso=-14.7,B2=12.5

---

Ag+ con non-aq 140°C 100% U K1=3.49 1967BNb (7751) 663

Medium:liquid I2

---

Ag+ ISE oth/un 25°C 1.0M U 1967BPf (7752) 664

B4=13.37

---

Ag+ ISE non-aq 239°C 100% U T H 1967FBb (7753) 665

Kso=-12.62

Medium: molten (Li/Na)ClO4. Kso=-13.21(222 C?), -12.3(250 C).  
DH(Kso)=167.2 J K-1 mol-1

---

Ag+ ISE non-aq 641°C 100% U K1=3.23 B2=6.16 1967GUb (7754) 666

Medium: (Li/K)SO4 eutectic. 564-718 C, x units

---

Ag+ ISE non-aq 25°C 100% U T 1967RPc (7755) 667

Kso=-11.47

B(Ag2I3)=23.95

Medium: DMSO, 0.1 M NH4NO3. B=23.04(45 C),21.83(65 C),20.83(85 C)

---

Ag+ ISE non-aq 23°C 100% U I B2=13.15 1966LIb (7756) 668

Kso=-12.0

Medium: DMSO, 0.1 M Et4NClO4. In MeOH: B2=14.8, Kso=-18.2. In acetone:  
B2=22.25, Kso=-20.9. In MeCN: B2=14.6 to 15.7, Kso=-14.2. In EtNO2:B2=23.5

---

Ag+ ISE non-aq 20°C 100% U 1966THb (7757) 669

Kso=-5.6

Medium liquid NH3, NH4NO3(NH3)1.3

---

Ag+ ISE non-aq 150°C 100% U 1965BFc (7758) 670

Kso=-13.0

Medium: (Na/K)NO3 eutectic. m units

---

Ag+ ISE non-aq 25°C 100% U K1=5.03 1965MBd (7759) 671

Medium: diaminoethane

-----  
Ag+ ISE non-aq 349°C 100% U TIH 1964BLa (7760) 672

Kso=-10.36

Medium: molten NaNO<sub>3</sub>. DH(Kso)=123.3 kJ mol<sup>-1</sup>. In KNO<sub>3</sub>: Kso=-9.92(359 C), -9.24(361 C). In (Na/K)NO<sub>3</sub>: Kso=-11.85(250 C), DH=116.6

-----  
Ag+ con non-aq 25°C 100% U K1=4.95 1964FMb (7761) 673

Medium: diaminoethane

-----  
Ag+ sol oth/un 300°C var U 1964GGa (7762) 674

Ks2=-0.70

Medium: NaI

-----  
Ag+ sol oth/un 20°C 0.0 U K1=6.58 1964LIa (7763) 675

K(AgL+Ag)=4.42

K(AgL+2Ag)=7.04

-----  
Ag+ ISE non-aq 350°C 100% U TI K1=4.08 1963BHa (7764) 676

Medium: molten KNO<sub>3</sub>. In (Na/K)NO<sub>3</sub>: K1=4.20(350 C), 4.11(375 C). In NaNO<sub>3</sub>: K1=4.69(350 C) x units(mol/mol NO<sub>3</sub>)

-----  
Ag+ ISE non-aq 25°C 100% U B2=18.12 1963CMA (7765) 677

Kso=-16.44

B(Ag3L4)=51.55

Medium: Me2NCHO

-----  
Ag+ sol oth/un 18°C var U K1=6.59 B2=11.74 1963MIc (7766) 678

B3=13.75

B4=14.36

Kso(AgL)=-16.50

-----  
Ag+ ISE non-aq 148°C 100% U T 1963THa (7767) 679

Kso(AgL)=-13.8

Medium: liquid (Li,K)NO<sub>3</sub>. Method: Ag electrode. Kso=-13.1(172 C), -12.4(194.5 C), x units

-----  
Ag+ ISE non-aq 402°C 100% U K1=3.73 B2=7.16 1962ABb (7768) 680

K(AgL+Ag)=3.55

Medium: liquid KNO<sub>3</sub>, m units. Method: Ag electrode

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Ag+ sol NaClO<sub>4</sub> 25°C 7.0M U 1962FSb (7769) 681

B3=14.09

B4=14.39

Kso(AgL)=-15.82

-----  
Ag+ ISE non-aq 25°C 100% U K1=4.79 1961SBb (7770) 682

Medium: C<sub>2</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub>. Method: Ag electrode

-----  
Ag+ cal non-aq 158°C 100% U H 1960JMa (7771) 683

Medium: liquid (Li,K)NO<sub>3</sub>. DH(so)=134 kJ mol<sup>-1</sup>, DS=76.6 J K<sup>-1</sup> mol<sup>-1</sup>

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Ag+ sol none 20°C 0.0 U 1960LIa (7772) 684

B(Ag<sub>2</sub>L)=11.0  
B(Ag<sub>3</sub>L)=13.62

---

Ag+ sol none 18°C 0.0 U K<sub>1</sub>=6.58 B<sub>2</sub>=11.74 1957LIa (7773) 685

K<sub>3</sub>=1.94  
K<sub>4</sub>=-0.58  
K<sub>so</sub>(AgL)=-16.50

---

Ag+ ISE non-aq 250°C 100% U H 1956FRb (7774) 686

K<sub>so</sub>(AgL)=-9.73

Method: Ag electrode. Medium: liquid (Na<sub>0.5</sub>K<sub>0.5</sub>)NO<sub>3</sub>, m units

DH(so)=122.8 kJ mol<sup>-1</sup>, DS=58.6 J K<sup>-1</sup> mol<sup>-1</sup>

---

Ag+ ISE oth/un 25°C var U T H 1956KLa (7775) 687

K<sub>so</sub>(AgL)=1.52-5090/T

Method: Ag electrode. DH(so)=97.5 kJ mol<sup>-1</sup>

---

Ag+ sol NaCl<sub>04</sub> 25°C 2.0M U 1956LPa (7776) 688

K(AgL(s)+2L=AgL<sub>3</sub>)=-2.40  
K(AgL(s)+3L=AgL<sub>4</sub>)=-2.30  
K(2AgL(s)+4L=Ag<sub>2</sub>L<sub>6</sub>)=-3.30  
K(3AgL(s)+5L=Ag<sub>3</sub>L<sub>8</sub>)=-2.77

---

Ag+ sol NaCl<sub>04</sub> 25°C 4.0M U K<sub>1</sub>=8.13 1956LPa (7777) 689

K(AgL(s)=AgL)=-8.22  
K(AgL(s)+Ag=Ag<sub>2</sub>L)=-6.0  
K(AgL(s)+2Ag=Ag<sub>3</sub>L)=-3.15  
K(AgL(s)+3Ag=Ag<sub>4</sub>L)=-2.43

---

Ag+ ISE NaCl<sub>04</sub> 25°C 4.0M U 1956LPa (7778) 690

B(Ag<sub>2</sub>L<sub>6</sub>)=29.7  
B(Ag<sub>3</sub>L<sub>8</sub>)=46.4  
K<sub>so</sub>(AgL)=-16.35  
K(AgL(s)+2L=AgL<sub>3</sub>)=-2.52

Method: Ag electrode. B<sub>3</sub>=13.85; K<sub>4</sub>=0.43; K(AgL(s)+3L=AgL<sub>4</sub>)=-2.05;

K(2AgL(s)+4L=Ag<sub>2</sub>L<sub>6</sub>)=-3.0; K(3AgL(s)+5L=Ag<sub>3</sub>L<sub>8</sub>)=-2.64. Data also by solubility

---

Ag+ sol oth/un 25°C var U 1954KTa (7779) 691

B<sub>4</sub>=14.00  
K<sub>5</sub>=0.18 or B(Ag<sub>2</sub>L<sub>6</sub>)=29.85  
B(Ag<sub>3</sub>L)=14.00

---

Ag+ sol non-aq 25°C 100% U I B<sub>2</sub>=23.60 1954KTa (7780) 692

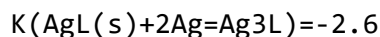
B(Ag<sub>3</sub>L<sub>4</sub>)=65.4

Medium: Me<sub>2</sub>CO. Also data for Me<sub>2</sub>CO/H<sub>2</sub>O mixtures. In aqueous soln, I=var,  
B<sub>3</sub>=14.00, K<sub>4</sub>=0.49, K(AgL(s)+2L=AgL<sub>3</sub>)=-2.42, K(AgL(s)+3L=AgL<sub>4</sub>)=-1.92

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Ag+	sol oth/un	20°C	var	U		1954KTa	(7781)	693
					B3=13.60 K4=0.44 K5=0.11 or B(Ag2L6)=29.85			
Ag+	ISE KNO3	20°C	1.60M	U		1953G0a	(7782)	694
					B3=13.85 K4=-0.11			
Ag+	ISE non-aq	18°C	100%	U	B2=21.83	1952AEa	(7783)	695
Medium: Et2O, I 1 M LiClO4. Method: Ag electrode								
Ag+	sol oth/un	25°C	var	U	H	B2=15.74 B(Ag2L6)=30.0 K3=-0.84 B5=13.95 or B(Ag2L6)=32.65	1941ERa	(7784) 696
Medium: HI. DH(Ag2L6)=-221.8 kJ mol <sup>-1</sup>								
Ag+	ISE none	25°C	0.0	U	T H		19380Ba	(7785) 697
						Kso(AgL)=-16.081		
Method: Ag electrode, I=0 corr. DH(so)=110.8 kJ mol <sup>-1</sup> , DS=63.7 J K <sup>-1</sup> mol <sup>-1</sup> . At 5 C: Kso=-17.498; 15 C: -16.081; 35 C: -15.456; 45 C: -14.879								
Ag+	ISE none	25°C	0.0	U			1933HJa	(7786) 698
						Kso(AgL)=-16.01		
Ag+	ISE alc/w	25°C	100%	U			1929BHa	(7787) 699
						Kso(AgL)=-18.22		
Medium: MeOH. Method: Ag electrode								
Ag+	ISE none	16°C	0.0	U			1927CAa	(7788) 700
						Kso(AgL)=-16.37		
Ag+	sol none	25°C	0.0	U			1908K0a	(7789) 701
						Kso(AgL)/Kso(AgBr)=-3.70 Kso(AgL)=-16.00		
Ag+	ISE oth/un	60°C	dil	U			1905SAd	(7790) 702
						Kso(AgL)=-13.93		
Ag+	sol oth/un	25°C	var	U			1904BEa	(7791) 703
						B4=15.74		
By Ag electrode B(Ag2L7)=29.50								
Ag+	ISE oth/un	13°C	var	U			1900DAa	(7792) 704
						Kso(AgL)=-16.49		
Ag+	sol oth/un	25°C	var	U			1900HEb	(7793) 705
						B4=14.41 B(Ag3L)=14.10		





-----  
 Ag+ ISE oth/un 25°C var U 1900THa (7794) 706  
 Kso(AgL)=-15.96  
 -----

Ag+ ISE oth/un 25°C var U 1894G0a (7795) 707  
 Kso(AgL)=-16.03  
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\*\*\*\*\*  
 IO3- HL Iodate CAS 7782-68-5 (1257)  
 Iodate;  
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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ EMF none 25°C 0.0 U 1973KCb (8455) 708  
 Kso(AgL(s))=-7.5  
 -----

Ag+ EMF non-aq 25°C 100% U I 1973KCb (8456) 709  
 Kso(AgL(s))=-12.7  
 Medium: MeOH. Kso=-10.6 (in MeCN); -9.8 (in DMSO)  
 -----

Ag+ sol non-aq 25°C 100% U T H 1973NDb (8457) 710  
 Kso(AgL(s))=-7.34  
 Medium: formamide. DH(Kso)=46.7 kJ mol<sup>-1</sup>; Kso=-7.22(30 C), -7.07(35 C)  
 -----

Ag+ sol none 25°C 0.0 U T 1972RAa (8458) 711  
 Kso(AgL(s))=-7.510  
 Kso=-8.364(2 C), -8.010(11 C), -7.689(20 C), -7.354(30 C), -7.041(40.2 C),  
 -6.749(49.1 C)  
 -----

Ag+ sol none 25°C 0.0 U T 1972RAa (8459) 712  
 Kso(AgL(s))=-7.72  
 Medium: D2O. Kso=-8.45(5 C), -8.05(15 C), -7.39(35 C), -6.95(50.3 C)  
 -----

Ag+ sol NaCl04 25°C 1.0M U T H 1956RMa (8460) 713  
 Kso(AgL)=-7.08  
 K(AgL(s)=AgL)=-6.89  
 K(AgL(s)+L=AgL2)=-5.62  
 Medium: LiCl04. 35 C:K1=0.80,K2=1.02,Kso=-6.76,K(AgL(s))=-6.39,K(AgL(s)+L)=  
 -5.37; 50 C:K1=0.96,K2=0.65,-6.37,-5.80,-5.15. DH(K1)=22 kJ m<sup>-1</sup>,DH(B2)=-22  
 -----

Ag+ ISE oth/un 22°C var U M B2=5.65 1952SHa (8461) 714  
 B(Ag(NH3)2L2)=4.6  
 -----

Ag+ sol none 25°C 0.0 U 1951M0a (8462) 715  
 Kso(AgL)=-7.51  
 -----

Ag+ sol oth/un 25°C dil U T 1951RAa (8463) 716  
 Kso(AgL)=-7.49  
 Kso=-6.91(45 C)  
 -----

Ag+ sol none 25°C 0.0 U 1941DSa (8464) 717  
Kso(AgL)=-7.51

-----  
Ag+ sol none 25°C 0.0 U T H 1941LLa (8465) 718  
Kso(AgL)=-7.51  
I=0 corr. DH(so)=-49 kJ mol<sup>-1</sup>, DS=-49 J K<sup>-1</sup> mol<sup>-1</sup>. Kso=-8.03(10 C), -7.68  
(20 C), -7.35(30 C), -7.19(35 C)

-----  
Ag+ sol none 25°C 0.0 U 1939KLa (8466) 719  
Kso(AgL)=-7.52

-----  
Ag+ con none 18°C 0.0 U T 1923B0a (8467) 720  
Kso(AgL)=-7.74  
I=0 corr. Kso=-8.04(9.4 C), -7.45(26.6 C)

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Ag+ sol oth/un 20°C dil U 1923B0a (8468) 721  
Kso(AgL)=-7.73

-----  
Ag+ sol oth/un 25°C dil U 1909HSa (8469) 722  
Kso(AgL)=-7.50

-----  
Ag+ ISE oth/un 25°C dil U T H 1905SAd (8470) 723  
Kso(AgL)=-7.33  
Method: Ag electrode. Kso=-6.37(60 C), DH=0.5 kJ mol<sup>-1</sup>

-----  
Ag+ con oth/un 20°C dil U 1903B0b (8471) 724  
Kso(AgL)=-7.64

-----  
Ag+ sol oth/un 25°C dil U 1902NKa (8472) 725  
Kso(AgL)=-7.45

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\*\*\*\*\*  
MnO4- HL Permanganate CAS 13456-41-3 (5678)  
Manganate(VII), Permanganate;

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

-----  
Ag+ sol none 25°C 0.0 C TIH 1975DMA (8630) 726  
Kso(AgMnO4)=-9.88

Data for 15-35 C. Data for 0.0025-0.025 M NaClO4, corrected to I=0.0 M.  
DH(Kso)=28.69 kJ mol<sup>-1</sup>, DS(Kso)=-93.03 J K<sup>-1</sup> mol<sup>-1</sup>.

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\*\*\*\*\*  
MoO4-- H2L Molybdate (443)  
Molybdate;

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

-----  
Ag+ EMF oth/un 251°C ? U T H K1=0.75 B2=1.26 1981HTa (8697) 727  
Electrolyte: molten 1:1 (K,Na)NO3; DH1=-7.5 kJ mol<sup>-1</sup>; DS1=20 J mol<sup>-1</sup> K<sup>-1</sup>

-----  
Ag+ sol oth/un 25°C dil U 1980GSb (8698) 728

Ks(Ag2MoO4)=-11.66

ISE also used

-----  
Ag+ sol none 25°C 0.0 U H 1956MHa (8699) 729

Kso(Ag2L)=-11.51

DH(Kso)=52.7 kJ mol<sup>-1</sup>, DS=-40 J K<sup>-1</sup> mol<sup>-1</sup>  
-----

Ag+ ISE none 25°C 0.0 U T H 1954PAa (8700) 730

Kso(Ag2L)=-11.55

DH(Kso)=54.0 kJ mol<sup>-1</sup>(25 C). Kso=-11.72(20 C), -11.40(30 C), -11.09(40 C)  
-----

Ag+ ISE oth/un 18°C var U 1934BGa (8701) 731

Kso(Ag2L)=-10.51

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

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

Ag+ gl KNO3 25°C 1.00M U K1=3.367 B2=7.251 1993GYa (9004) 732

B(AgH-1L2)=-4.08  
-----

Ag+ cal R4N.X 25°C 1.0M C H 1992LHa (9005) 733

Medium: 1.0 M NH4NO3. DH(K1)=-21.40 kJ mol<sup>-1</sup>, DS(K1)=8.66 J K<sup>-1</sup> mol<sup>-1</sup>;

DH(B2)=-56.6, DS(B2)=-52.6.  
-----

Ag+ sp R4N.X 25°C 0.10M U 1986BJb (9006) 734

K3=-1.60  
-----

Ag+ ISE oth/un 25°C 1.00M U T HM K1=4.33 B2=6.9 1986MLa (9007) 735

DH(K1)=-79.4 kJ mol<sup>-1</sup>; DH((B2)=-56.9; DS(K1)=180.0 J K<sup>-1</sup> mol<sup>-1</sup>;

DS(B2)=-58.6. Ternary complexes with S2O3 and SCN ligands  
-----

Ag+ ISE KNO3 25°C 0.10M C K1=3.41 B2=7.26 1985YWa (9008) 736  
-----

Ag+ EMF R4N.X 25°C 1.0M C M K1=5.94 B2= 9.19 1984DBc (9009) 737

B(Ag(S2O3)L)=9.33

B(Ag(S2O3)2L)=14.08

B(Ag(S2O3)L2)=12.32  
-----

Method: Ag/Ag(I) electrode. Medium: 1.0 M NH4NO3.  
-----

Ag+ oth R4N.X 25°C 0.10M U T K1=3.44 B2=6.92 1983KOb (9010) 738

Medium:NH4NO3. At 30 C K1=3.38,B2=6.80; 40 C K1=3.26,B2=6.56; 50 C K1=3.15,  
B2=6.32; 60 C, K1=3.08, B2=6.10; 80 C, K1=2.71, B2=5.58; 100C,K1=2.52,B2=5.1  
-----

Ag+ gl oth/un 25°C 0.50M U I K1=3.22 B2=7.21 1983MNa (9011) 739

Medium: LiNO3. I=1.0: K1=3.23, B2=7.17; I=2.0: 3.20, 7.20; I=3.0:3.18, 7.18;  
I=4.0: 3.13, 7.14; I=5.0: 3.10, 7.09  
-----

Ag+ gl NaNO3 25°C 0.50M U I K1=3.28 B2=7.25 1983MNa (9012) 740

Medium: LiNO<sub>3</sub>. I=1.0: K<sub>1</sub>=3.27, B<sub>2</sub>=7.24; I=2.0: 3.27, 7.28; I=3.0: 3.25, 7.30;  
I=4.0: 3.27, 7.34; I=5.0: 3.28, 7.38

-----  
Ag+ gl KNO<sub>3</sub> 25°C 0.50M U I K<sub>1</sub>=3.27 B<sub>2</sub>=7.24 1983MNa (9013) 741  
I=1.0: K<sub>1</sub>=3.19, B<sub>2</sub>=7.17; I=2.0: 3.28, 7.30; I=3.0: 3.32, 7.35

-----  
Ag+ gl NaClO<sub>4</sub> 25°C 0.50M U I K<sub>1</sub>=3.31 B<sub>2</sub>=7.35 1983MNa (9014) 742  
Medium: LiClO<sub>4</sub>. I=1.0: K<sub>1</sub>=3.43, B<sub>2</sub>=7.53; I=2.0: 3.52, 7.72; I=3.0: 3.60,  
7.84

-----  
Ag+ gl NaClO<sub>4</sub> 25°C 0.50M U I K<sub>1</sub>=3.36 B<sub>2</sub>=7.38 1983MNa (9015) 743  
I=1.0: K<sub>1</sub>=2.29, B<sub>2</sub>=7.54; I=2.0: 3.53, 7.78; I=3.0: 3.63, 7.92;  
I=4.0: 3.80, 8.18

-----  
Ag+ gl oth/un 25°C 3.00M C K<sub>1</sub>=3.204 B<sub>2</sub>=7.17 1979HAb (9016) 744  
K<sub>3</sub>=-0.76

-----  
Ag+ cal NaClO<sub>4</sub> 25°C 3.00M C I K<sub>1</sub>=3.62 B<sub>2</sub>=7.93 1979MAb (9017) 745  
Medium: NaClO<sub>4</sub>. In 3.0 M LiClO<sub>4</sub>: K<sub>1</sub>=3.58, B<sub>2</sub>=7.77; 3 M NaNO<sub>3</sub>: 3.23, 7.14

-----  
Ag+ EMF KNO<sub>3</sub> 141°C ? U T K<sub>1</sub>=3.178 B<sub>2</sub>=6.66 1974MBc (9018) 746  
Medium:(Li,K)NO<sub>3</sub>, 160 C:K<sub>1</sub>=3.088,K<sub>2</sub>=3.208; 181 C:K<sub>1</sub>=2.831, K<sub>2</sub>=3.120;  
199 C: K<sub>1</sub>=2.993, K<sub>2</sub>=2.742 (Unit mol/mol NO<sub>3</sub>-)

-----  
Ag+ sol KNO<sub>3</sub> 70°C 1.0M U T 1973KBb (9019) 747  
K<sub>s</sub>(Ag<sub>2</sub>O+4L+H<sub>2</sub>O=2AgL<sub>2</sub>+2OH)=1.36  
K<sub>s</sub>=1.56(80C), 1.79(90 C), 2.03(100 C), 2.33(110 C), 2.56(120 C), 2.82(130 C)

-----  
Ag+ gl R4N.X 25°C 2.0M U T K<sub>1</sub>=3.35 B<sub>2</sub>=7.23 1969KLe (9020) 748  
Medium:NH<sub>4</sub>NO<sub>3</sub>. At 30 C:K<sub>1</sub>=3.30, B<sub>2</sub>=6.96. 40 C:3.1, 6.57. 50 C:2.9, 6.18  
60 C:2.8, 5.85. 70 C:2.7, 5.54. 80 C:2.5, 5.22. 90 C:2.3, 4.95

-----  
Ag+ ISE oth/un 50°C var U T H B<sub>2</sub>=5.6 1966MAa (9021) 749  
K<sub>s</sub>(AgL<sub>2</sub>Br(s)=AgL<sub>2</sub>+Br<sup>-</sup>)=-5.2  
At 20 C: B<sub>2</sub>=6.5, K<sub>s</sub>=-6.4. DH(B<sub>2</sub>)=-51.8 kJ mol<sup>-1</sup>

-----  
Ag+ cal oth/un 25°C 0? U H 1966PVa (9022) 750  
DH(K<sub>1</sub>)=-20.5 kJ mol<sup>-1</sup>, DS=-35.9 J K<sup>-1</sup> mol<sup>-1</sup>

-----  
Ag+ ISE R4N.X 25°C 1.0M U M B<sub>2</sub>=7.34 1961LPa (9023) 751  
B(AgLCl)=6.3  
B(AgL<sub>2</sub>Cl)=7.08  
B(AgL<sub>2</sub>Br)=7.64  
B(AgL<sub>2</sub>Br<sub>2</sub>)=7.76

Method: Ag electrode. Medium: NH<sub>4</sub>(ClO<sub>4</sub>,X) where X is Cl or Br.

-----  
Ag+ sol R4N.X 25°C 1.0M U M 1961LPb (9024) 752  
K(AgCl(s)+2L=AgL<sub>2</sub>+Cl<sup>-</sup>)=-1.95  
K(AgCl(s)+2L=AgL<sub>2</sub>Cl<sup>-</sup>)=-2.3  
K(AgCl+L=AgLCl)=-3.4?

$$K(\text{AgCl}(s) + \text{L} + \text{Cl} = \text{AgLCl}_2) = -2.8$$

Medium:  $\text{NH}_4(\text{ClO}_4, \text{Cl})$ .  $K(\text{AgBr}(s) + 2\text{L} = \text{AgL}_2 + \text{Br}) = -4.58$ ;  $K(\text{AgBr}(s) + 2\text{L} = \text{AgL}_2\text{Br}) = -4.37$ ;  $K(\text{AgBr}(s) + \text{L} = \text{AgLBr}) = -4.35$ ;  $K(\text{AgBr}(s) + \text{L} + \text{Br} = \text{AgLBr}_2) = -4.1$  and others.

Ag+	sol	oth/un	15°C	var	U	B2=7.0	1961SDa	(9025)	753
Ag+	sol	oth/un	25°C	var	U	B2=7	1959DSb	(9026)	754
Ag+	ISE	none	25°C	0.0	U	B2=7.22	1955FYb	(9027)	755
Ag+	cal	oth/un	25°C	dil	U H		1955FYb	(9028)	756
DH(B2)=-56.5 kJ mol <sup>-1</sup> ; DS(B2)=-51.9 to -51.0.									
Ag+	sol	oth/un	25°C	var	U	B2=7.31	1954K0a	(9029)	757
Ag+	gl	R4N.X	25°C	1.0M	U	K1=3.37 B2=7.15	1954LLa	(9030)	758
Medium: $\text{NH}_4\text{NO}_3$ .									
Ag+	sol	none	25°C	0.0	U T	B2=5.09	1954LPa	(9031)	759
I=0 corr. B2=5.00(35 C), 4.83(45 C)									
Ag+	ISE	oth/un	22°C	var	U M		1952SHa	(9032)	760
B(AgL <sub>2</sub> X <sub>2</sub> )=ca.4.5									
Method: Ag electrode. X:Cl, BrO <sub>3</sub> or IO <sub>3</sub> .									
Ag+	kin	oth/un	25°C	var	U H		1949JAb	(9033)	761
0-45 C. DH(B2)=-54 kJ mol <sup>-1</sup> .									
Ag+	ISE	KNO <sub>3</sub>	25°C	1.0M	U I	K1=3.3 B2=7.21	1947NAa	(9034)	762
I=0.0044 M K2=3.89, B2=7.20. I=0 corr.: B2=7.21									
Ag+	gl	none	25°C	0.0	U	K1=3.26	1944KNa	(9035)	763
Ag+	sol	none	25°C	0.0	U	K1=3.37 B2=7.21	1943VMa	(9036)	764
Ag+	gl	R4N.X	30°C	5.0M	U TI	K1=3.14 B2=6.96	1941BJa	(9037)	765
Medium: $\text{NH}_4\text{NO}_3$ . 2 M: K1=3.20, K2=3.83. 0.5 M: K1=3.24, K2=3.81. I=0 corr., 25 C: K1=3.315, K2=3.915. 22 C, 0.5 M: K1=3.39, K2=3.92									
Ag+	sol	none	25°C	0.0	U	B2=7.22	1941DSa	(9038)	766
Ag+	cal	none	25°C	0.0	U H		1937SBa	(9039)	767
I=0 corr. DH(B2)=-56.1 kJ mol <sup>-1</sup> ; DS(B2)=-49.8.									
Ag+	sol	oth/un	15°C	var	U	B2=7.48	1935BWa	(9040)	768
Ag+	ISE	alc/w	25°C	50%	U	B2=7.73	1934LAb	(9041)	769
Method: Ag electrode. Medium: 50 mol% EtOH/H <sub>2</sub> O.									
Ag+	ISE	oth/un	15°C	var	U	B2=7.13	1933BWa	(9042)	770

-----  
 Ag+ ISE oth/un 25°C dil U T H B2=7.03 1930K0a (9043) 771  
 Method: Ag electrode. B2=7.77(0 C), 7.24(18.5 C), 6.86(30 C), 6.49(40 C),  
 6.16(52 C). DH(B2)=-51.5 kJ mol<sup>-1</sup>.  
 -----

Ag+ sol none 25°C 0.0 U B2=7.10 1930RHa (9044) 772  
 -----

Ag+ ISE oth/un 15°C var U B2=7.60 1928J0a (9045) 773  
 -----

Ag+ ISE oth/un 18°C var U B2=7.66 1925BRa (9046) 774  
 -----

Ag+ ISE oth/un 16°C dil U B2=7.31 1903EUa (9047) 775  
 -----

Ag+ sol oth/un 25°C var U T B2=7.17 1902BFa (9048) 776  
 At 18 C, by EMF, B2=7.10  
 -----

Ag+ cal oth/un 15°C ? U H 1899BDa (9049) 777  
 DH(B2)=-55.44 kJ mol<sup>-1</sup>  
 -----

\*\*\*\*\*  
 NH3O L Hydroxylamine; CAS 5470-11-1 (1808)  
 Hydroxylamine; NH2.OH  
 -----

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

Ag+ gl NaNO3 20°C 0.50M U K1=1.9 B2=1.90 1963SZa (9256) 778  
 -----

\*\*\*\*\*  
 NO2- HL Nitrite CAS 7782-77-6 (635)  
 Nitrite;  
 -----

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

Ag+ EMF NaNO3 25°C 0.50M U IH K1=1.695 B2=2.073 1972TLa (9341) 779  
 Kso=-3.569. At I=0.8: K1=1.562, B2=2.051, Kso=-3.456. At 0 corr, 15 C: K1=  
 2.426, B2=2.811, Kso=-4.50; 25 C:2.32,2.527,-4.15. 35 C:2.07,2.26,Kso=-3.78  
 -----

Ag+ sol NaCl04 20°C 1.20M U K1=1.61 B2=2.18 1970KCc (9342) 780  
 By spectrophotometry: K1=1.64  
 -----

Ag+ sol oth/un 25°C 0.0 U B2=2.30 1957HAa (9343) 781  
 Kso(AgL(s))=-3.22  
 -----

Ag+ sol oth/un 25°C var U B2=2.83 1906PAa (9344) 782  
 Kso(AgL(s))=-3.80  
 Ks(AgL(s)=AgL)=-1.92  
 Ks(AgL(s)+L=AgL2)=-1.28  
 -----

B2 by Ag electrode. By conductivity Kso=-4.22  
 -----

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	con	none	25°C	0.0	C	I	K1=0.0	1986SDa	(9495) 783
Value derived from data for 0.001-0.05 self medium.									
Ag+	ISE	mixed	25°C	95%	U	I	K1=3.02	1983MSa	(9496) 784
Medium: THF/H2O mixtures. Proportion of THF varied from 95% to 77% (w/w)									
Ag+	con	non-aq	25°C	100%	U	I	K1=2.40	1982GCa	(9497) 785
Medium: DMF. Further data for a wide variety of media									
Ag+	con	non-aq	25°C	100%	U	I	K1=2.3	1982GCb	(9498) 786
Medium: DMF and 1,1,3,3-Tetramethylurea. Further data for other media available for a wide variety of mixed media									
Ag+	sp	oth/un	25°C	?	U		K1=-1.0	1974CIb	(9499) 787
Method: Raman and IR spectroscopy									
Ag+	con	non-aq	25°C	100%	U		K1=2.21	1974HPb	(9500) 788
Medium: Hexamethylphosphotriamide									
Ag+	con	oth/un	25°C	0.0	U		K1=-0.06	1971HPa	(9501) 789
Ag+	con	oth/un	25°C	0.0	U		K1=-0.1	1971PJa	(9502) 790
Ag+	con	oth/un	25°C	0.0	U		K1=-0.08	1969BJa	(9503) 791
Ag+	con	oth/un	25°C	0.0	U		K1=-0.23	1969GUc	(9504) 792
Ag+	ISE	non-aq	25°C	100%	U		K1=1.87	1969KLa	(9505) 793
Medium: MeCN									
Ag+	con	oth/un	25°C	0.0	U	I	K1=0.26	1969MFb	(9506) 794
Also in dioxan/H2O mixtures									
Ag+	con	non-aq	25°C	100%	U		K1=1.85	1969YKa	(9507) 795
Medium: MeCN									
Ag+	oth	oth/un	25°C	0.0	U		K1=0.2	1966MBb	(9508) 796
Ag+	ISE	mixed	22°C	80%	U	I	K1=1.06	1965MAd	(9509) 797
Medium: 80% i-PrOH, 0.05 M HClO4. K1=0.39(I=0.80)									
Ag+	con	non-aq	25°C	100%	U	I	K1=3.34	1964FMb	(9510) 798
Medium: diaminoethane. K1=4.09 in 1,3-diaminopropane									
Ag+	ISE	mixed	23°C	40%	U	I	K1=-0.28	1964FWa	(9511) 799
Medium: 40% i-PrOH, 0.5 M HClO4. K1=-0.57(0%), 0.20(70%), 0.53(80%), 0.73(90%)									
Ag+	con	alc/w	25°C	100%	U		K1=1.85	1963BGc	(9512) 800

Medium: MeOH

-----  
Ag+ con alc/w 25°C 100% U K1=2.32 1963PSa (9513) 801  
Medium: EtOH, I=0 corr.  
-----

Ag+ sol NaClO4 25°C 0.20M U I K1=-0.2 1963RSe (9514) 802  
Medium: Li(ClO4). K1=-0.1(I=0.02 to 0.1) in H2O and D2O  
-----

Ag+ con alc/w 25°C 100% U T K1=2.28 1962BKb (9515) 803  
Medium: EtOH, I=0 corr. K1=2.11(-5 C), 2.02(5 C), 2.11(15 C), 2.42(35 C),  
2.49(40 C)  
-----

Ag+ oth non-aq 11°C 100% U K1=3.42 1962PBb (9516) 804  
Method: Freezing point. Medium: 1,2-diaminoethane  
-----

Ag+ con non-aq 25°C 100% U K1=2.40 1961CMA (9517) 805  
Medium: HCONMe2  
-----

Ag+ con non-aq 25°C 100% U K1=3.60 1958GLb (9518) 806  
Medium: C6H5CN  
-----

Ag+ con alc/w 25°C 100% U T K1=2.25 1958KIa (9519) 807  
Medium: EtOH, I=0 corr. K1=2.17(15 C), 2.41(35C ), 2.55(45 C)  
-----

Ag+ con non-aq 25°C 100% U K1=0.96 1956GLa (9520) 808  
Medium: C2H4(OH)2, also K1 for C2H4(OH)2/H2O  
-----

Ag+ con oth/un 25°C 0.0 U K1=-0.29 1955RSa (9521) 809  
-----

Ag+ ISE NaClO4 25°C 2.0M U K1=-0.34 19460Aa (9522) 810  
-----

Ag+ con oth/un 25°C 0.0 U K1=-0.18 1937RDa (9523) 811  
-----

Ag+ con alc/w 25°C 100% U K1=2.36 1933DAa (9524) 812  
Medium: EtOH  
-----

Ag+ con oth/un 18°C 0.0 U K1=-0.08 1927DAB (9525) 813  
\*\*\*\*\*

N2O2-- H2L (6885)  
Hyponitrite;  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ sol oth/un 25°C 0.0 U 1961PYa (10093) 814  
B(AgL(NH3))=8.4  
Kso(Ag2L)=-18.89  
\*\*\*\*\*

N3- HL Azide CAS 7782-79-8 (441)  
Azide;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	30°C	100%	U		B2=7.6	1971BPb (10158)	815
Medium: 2-pyrrolidinone, 0.1 M Et4NClO4. Kso=-7.6									
Ag+	EMF	mixed	25°C	80%	U		B2=6.8	1971Cma (10159)	816
Medium: w% Me2SO, 0.1 M Et4NClO4. B2=7.0(w=90), 7.4(w=95), Kso=-8.3(w=0) -7.9(w=10), -7.6(w=20), -7.2(w=40), -6.9(w=60), -6.7(w=80), -7.1(w=95)									
Ag+	con	non-aq	20°C	100%	U		B2=8.0	1970Dma (10160)	817
Medium: DMSO, 0.1 M Et4NClO4. Kso=-7.5									
Ag+	ISE	non-aq	25°C	100%	U		B2=12.60	1969VKa (10161)	818
Medium: N-Methyl-2-pyrrolidone. Kso=-10.91									
Ag+	ISE	alc/w	25°C	100%	U	I		1967AKa (10162)	819
Kso=-11.2									
Medium: MeOH. Kso=-7.7(HCONH2), -10.8(Me2NCOMe), -6.5(Me2SO), -11.0(Me2NCHO), -9.6(MeCN), -8.5((Me2N)3PO), B2=12.2(Me2NCOMe), 7.0(Me2SO), 11.4((Me2N)3PO).									
Ag+	cal	oth/un	25°C	0.0	U	H		1956Gwc (10163)	820
DH(Kso(AgL(s)))=69.7 kJ mol-1									
Ag+	sol	NaClO4	25°C	4.0M	U		K1=2.49 K3=-0.02 K4=-0.48	1954LSa (10164)	821
Kso(AgL(s))=-8.80, Ks(AgL(s)=AgL)=-6.30, Ks(AgL(s)+L=AgL2)=-4.60 Ks(AgL(s)+ 2L=AgL3)=-4.52, Ks(AgL(s)+3L=AgL4)=-4.82. By Ag elec. B3=3.90, B4=3.67									
Ag+	ISE	oth/un	25°C	0.0	U			1952Sua (10165)	822
Kso(AgL(s))=-8.54									
Ag+	ISE	oth/un	25°C	0.0	U			1938TNa (10166)	823
Kso(AgL(s))=-8.58									
*****									
OCN-		HL		Cyanate			CAS 661-20-1	(6165)	
Cyanate, Fulminate;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	none	30°C	0.0	U		B2=5.00	1954COa (10290)	824
Ks(Ag2L2(s)=Ag+AgL2)=-7.64									
Conductivity also used									
Ag+	ISE	none	19°C	0.0	U			1930BHa (10291)	825
Kso(AgL(s)=Ag+L)=-6.64									
*****									
OH-		HL		Hydroxide			(57)		
Hydroxide;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	C			*K1=-8.56	2002PLb (10723)	826
Ag+	gl	NaCl04	25°C	1.0M	C			Kso(AgOH)=-7.0	1983MAe (10724)	827
Additional method: Ag ion selective electrode.										
Ag+	ISE	NaCl04	25°C	3.00M	U			*Kso(AgOH(s)+H=Ag+H2O)=6.64	1970HSa (10725)	828
Ag+	ISE	KNO3	250°C	100%	U T H			Kso(AgO2)=-15.6	1968SGi (10726)	829
Medium: molten KNO3. Kso=-15.1(275 C), -14.8(400 C), -14.47(425 C). DH=119 kJ mol-1, DS=106 J K-1 mol-1. Data also in (NaK)NO3.										
Ag+	sol	NaCl04	25°C	1.00M	U			K1=3.02 B2=4.69 Kso=-8.17	1967GSd (10727)	830
Ag+	con	none	25°C	0.0	U			Kso=-7.71	1963FSa (10728)	831
Ag+	dis	NaCl04	25°C	3.0M	U			B2=3.50	1960ADa (10729)	832
By solubility B2=3.60										
Ag+	ISE	NaCl04	25°C	3.0M	U			Kso=-7.42	1960AHa (10730)	833
Ag+	gl	oth/un	25°C	1.0M	U			*K1 < -11.1 *B(2,1) < -11.1 *B(2,2) < -17.7	1960BHb (10731)	834
Ag+	gl	NaCl04	25°C	0.26M	U I			Kso=-7.37	1960NMb (10732)	835
Kso: K(0.5Ag2O(s)+0.5H2O=Ag+OH). At I=1 M NaCl04 Kso=-7.29, I=3 Kso=-7.45										
Ag+	gl	oth/un	12°C	?	U			Kso=-7.25	1958KGa (10733)	836
Kso: K(0.5Ag2O(s)+0.5H2O=Ag+OH). Polarography also used										
Ag+	ISE	none	25°C	0.0	U			Ks(3,4)=-4.3(?)	1957PKb (10734)	837
Ks(3,4): 1.5Ag2O(s)+1.5H2O+OH=Ag3(OH)4										
Ag+	gl	KNO3	18°C	0.20M	U			K1=4.22 *K1=-9.76	1954FAa (10735)	838
Ag+	ISE	none	25°C	0.0	U				1943NAa (10736)	839

$$K_{SO} = -7.59$$

Ag+	gl	none	25°C	0.0	U	19380Ka (10737)	840
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$$K_{SO} = -7.84$$

Ag+	oth none	25°C	0.0	U	H	1937PSa (10738)	841
-----	----------	------	-----	---	---	-----------------	-----

\*K<sub>SO</sub>=6.29

\*Kso:  $K(0.5Ag_2O(s)+H=Ag+0.5H_2O)$ ;  $DH(*Kso)=-21.8 \text{ kJ mol}^{-1}$ ,  $DS=47$ ; method: DG

Ag+ gl oth/un 15°C var U 1933BWa (10739) 842

$$K_{SO} = -7.91$$

Ag+ sol none 25°C 0.0 U K1=2.30 B2=3.55 1933JCa (10740) 843

$$\begin{aligned} K(\text{AgL(s)}=\text{AgL}) &= -5.60 \\ K(\text{AgL(s)}+\text{L}=\text{AgL}_2) &= -3.71 \\ *K_2 &= -12.10 \end{aligned}$$

Ag+ gl none 18°C 0.0 U 1932BRa (10741) 844

$$K_{SO} = -7.95$$

Ag+ con oth/un 25°C dil U T 1927LAa (10742) 845

$$K_{SO} = -7.71$$
$$K_{so}: K(0.5Ag_2O(s) + 0.5H_2O = Ag + OH); K_{so} = -7.89(18\text{ }^\circ\text{C}), -7.84(20\text{ }^\circ\text{C})$$

Ag+ sol oth/un 20°C dil U 1925BRa (10743) 846

K<sub>SO</sub> = -7.66 to -7.47

Ag+	ISE oth/un 20°C	var	U	1925BRa (10744)	847
-----	-----------------	-----	---	-----------------	-----

$$K_{SO} = -7.82$$

Ag+ ISE oth/un 20°C var U T H 1924JGa (10745) 848

$$K_{SO} = -8.21$$
$$K_{so}(\theta.5Ag_2O(s)+\theta.5H_2O=Ag+OH); \Delta H(K_{so})=6.9 \text{ kJ mol}^{-1}; K_{so}=-7.85(40^\circ C)$$

Ag+	sp	oth/un	20°C	dil	U	K1=4.19	1919L0a (10746)	849
-----	----	--------	------	-----	---	---------	-----------------	-----

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Ag+	sol oth/un	25°C	var	U	1903ACa (10747)	850
-----	------------	------	-----	---	-----------------	-----

$$K_{SO} = -7.49$$

Ag+ con oth/un 25°C dil U T 1903B0b (10748) 851

$$K_{SO} = -7.71$$
$$K_{so}: K(0.5Ag_2O(s) + 0.5H_2O = Ag + OH^-); K_{so} = -7.82 (20^\circ C)$$

Ag+	sol oth/un	25°C	dil	U	1902Nka (10749)	852
-----	------------	------	-----	---	-----------------	-----

$$K_{SO} = -7.65$$
$$K_{S1} = -4.18$$
$$K_{s0}: K(0.5Ag_2O(s) + 0.5H_2O = Ag + OH); \quad K_{s1}: K(0.5Ag_2O(s) + 0.5H_2O = AgOH)$$

Ag+ sol oth/un 25°C dil U K1=3.94 1901LEa (10750) 853

\*\*\*\*\*

O2--                      H2L      Peroxide                      CAS 7772-84-1    (2813)  
Peroxide; -0.0-

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

Ag+                sol oth/un 25°C    20%   U   I    1959MSa (12647) 854

Kso(AgHL)=-6.6

Also by kinetics, conductivity. 20% H2O2. Kso=-4.8(70%). -10 to 25 C

\*\*\*\*\*

PF3                                      L                                      CAS 7783-55-3    (1861)

Phosphorus trifluoride;

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

Ag+                ISE non-aq    ?    100%   C                      K1=3.19                      1978GRa (12764) 855

Medium: liquid anhydrous HF

\*\*\*\*\*

PH3                                      L      Phosphine                      CAS 7803-51-2    (1859)

Phosphine;

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

Ag+                ISE non-aq    ?    100%   C    1978GRa (12768) 856

K(Ag+Ag(PH3)2=2AgPH3)=0.81

K(Ag(PH3)2/AgPH3\*PH4\*F)=3.98

Medium: liquid anhydrous HF. K(AgPH3+PH4+L=Ag(PH3)2+HL)=3.98

\*\*\*\*\*

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

Phosphate;

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

Ag+                gl    NaCl04 25°C    3.0M M   I    1996CIb (12987) 857

K(Ag+H2L)=-0.17

K(Ag+2H2L)=-0.13

K(Ag+H2L=AgHL+H)=-5.56

K(Ag+2H2L=AgH3L2+H)=-4.58

At I=0: K(Ag+H2L)=0.3

-----  
Ag+                gl    NaCl04 25°C    3.00M U   I    1973HSa (12988) 858

K(Ag+H2L=AgHL+H)=-4.80

K(Ag+H2L)=0.036

K(Ag3L(s)+H=3Ag+HL)=-6.56. Data also at other ligand concs.

-----  
Ag+                gl    NaCl04 25°C    3.00M U    1969BSd (12989) 859

K(Ag+HL) < 3.2

K(Ag3L(s)+H=3Ag+HL)=-6.70

-----  
Ag+                sol none      25°C    0.0   U    1954T0a (12990) 860

Kso(Ag3L)=-15.84

-----  
 Ag+ sol oth/un 19°C var U 1951ZHa (12991) 861  
 Kso(Ag3L)=-19.89  
 -----

Ag+ sol oth/un 18°C 0.02M U 1942HAa (12992) 862  
 Kso(Ag3L)=-19  
 -----

Ag+ sol oth/un 18°C var U 1942TLa (12993) 863  
 Kso(Ag3L)=-20.84  
 -----

Ag+ con oth/un 20°C dil U 1903B0b (12994) 864  
 Kso(Ag3L)=-17.86  
 -----

\*\*\*\*\*  
 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
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Ag+	vlt	KN03	?	1.00M	U	M		19720Aa (13524)	865
-----	-----	------	---	-------	---	---	--	-----------------	-----

K(Ag(NH3)2+L)=4.77  
 -----

Ag+	ISE	NaNO3	25°C	0.50M	U	I	K1=2.55	1971TVa (13525)	866
-----	-----	-------	------	-------	---	---	---------	-----------------	-----

Kso=-17.82. I=1: K1=2.30, Kso=-17.46  
 -----

Ag+	ISE	NaCl04	25°C	0.50M	U		K1=2.57	1971TVa (13526)	867
-----	-----	--------	------	-------	---	--	---------	-----------------	-----

Kso=-17.55  
 -----

Ag+	sol	NaNO3	?	0.15M	U	I	K1=2.89	1971VMb (13527)	868
-----	-----	-------	---	-------	---	---	---------	-----------------	-----

Kso=-18.60. Also K1=2.80, Kso=-18.41(I=0.25), K1=2.54, Kso=-17.68(I=0.75);  
 K1=3.74, Kso=-21.1(I=0)  
 -----

\*\*\*\*\*  
 P4013----- H6L Tetrphosphate (1102)  
 Tetrphosphate;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sol	oth/un	25°C	var	U	T	K1=7.56 Kso=-7.07	1966BCc (14036)	869
-----	-----	--------	------	-----	---	---	----------------------	-----------------	-----

35 C: K1=7.34, Kso=-6.89. L=P03- unit, n=60-150  
 -----

\*\*\*\*\*  
 Re04- HL Perrhenate (2581)  
 Rhenate(VII), Perrhenate;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sol	none	25°C	0.0	C			1988HHb (14094)	870
-----	-----	------	------	-----	---	--	--	-----------------	-----

Kso(AgRe04)=-3.17  
 -----

Method: perrhenate ion selective electrode.  
 \*\*\*\*\*  
 S-- H2L Sulfide CAS 7783-06-4 (705)  
 -----

## Sulfide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	0.0	C	TIH		K(Ag+HS)=15.89 K(Ag+2HS)=17.54 K(2Ag+3HS=Ag <sub>2</sub> S(HS) <sub>2</sub> +H)=31.24 Calc. from solubility of Ag <sub>2</sub> S (argentite) in H <sub>2</sub> S/NaOH (0.007-0.176 m HS-), pH 3.7-12.7. Data for 25-350 C. DH(AgHS)=-123.2 kJ mol <sup>-1</sup> , DH(Ag(HS) <sub>2</sub> )=20.1	2003SSd (14235)	871
Ag+	sol	oth/un	25°C	0.0	C	TI		Ks(0.5Ag <sub>2</sub> S+0.5H <sub>2</sub> S=AgHS)=-5.62 Ks(Ag <sub>2</sub> S+2HS=Ag <sub>2</sub> S(HS) <sub>2</sub> )=-4.78 Ks(0.5Ag <sub>2</sub> S+H=Ag+0.5H <sub>2</sub> S)=-14.52 Solubility of Ag <sub>2</sub> S (argentite) in H <sub>2</sub> S/NaOH (0.007-0.176 m HS-), pH 3.7-12.7. Ks(0.5Ag <sub>2</sub> S+0.5H <sub>2</sub> S+HS=Ag(HS) <sub>2</sub> )=-3.97. Data for 25-350 C.	2003SSd (14236)	872
Ag+	vlt	oth/un	25°C	0.72M	C	I		K(Ag+HL)=11.6 Method: determination of free S-- by cathodic stripping voltammetry. Medium: seawater, pH 8.0, S=35. Also data for S=21 and 10.5.	1999AVb (14237)	873
Ag+	vlt	NaCl	25°C	?		U		K <sub>1</sub> eff>9.5 K <sub>2</sub> eff>5.8 Medium: sea water, pH=8. Method: cathodic stripping square wave voltammetry	1994ZMa (14238)	874
Ag+	oth	none	?	0		U		*Ks(Ag <sub>2</sub> S+H=2Ag+HS)=-35.94 From recalculation of literature data.	1990DKa (14239)	875
Ag+	sol	oth/un	25°C	var		U T		Ks(0.5Ag <sub>2</sub> S+0.5H <sub>2</sub> S+HS)=-3.82 25-300 C. Constant valid at infinite dilution	1989GBa (14240)	876
Ag+	gl	oth/un	25°C	0.10M	U	TI		K(Ag+HS)=13.6 K(AgHS+HS)=4.1 At 20 C, I=1 M: K(Ag+HS)=13.3, K(AgHS+HS)=3.9	1988DYa (14241)	877
Ag+	oth	none	25°C	0		U		Kso(Ag <sub>2</sub> S,orthorhombic)=-53.6 *Kso(Ag <sub>2</sub> S,orthorhombic)=-36.3 Kso(Ag <sub>2</sub> S,beta)=-53.4 *Kso(Ag <sub>2</sub> S,beta)=-36.1 Derived from thermodynamic data and K(H+S=HS)=17.3.	1988LIa (14242)	878
Ag+	oth	none	25°C	0		U		Kso(Ag <sub>2</sub> S,acanthite)=-54.71	1988SBc (14243)	879

Method: recalculated from literature data using  $K(H+S=HS)=18.57$  and  $K(H+HS)=6.99$

-----  
Ag+ ISE NaCl 24°C 0.10M M 1987PFb (14244) 880  
 $K_{so}(Ag_2S)=-48.9$

Method: pH<sub>2</sub>S measured with Ag<sub>2</sub>S electrode.  $K(H+S=HS)=13.9$  and  $K(H+HS=H_2S)=6.92$  assumed

-----  
Ag+ EMF non-aq 155°C 100% U 1971PCa (14245) 881  
 $K_3=25.43$   
 $K_{so}=-17.26$   
 $K(2Ag_2S(s)=Ag+Ag_3S_2)=-9.25$

Medium: fused (Na,K)SCN. In m units

-----  
Ag+ oth none 50°C 0.0 M T 1969HEa (14246) 882  
Estimated from literature data.  $K_{so}=-46.17(50\text{ C})$ ;  $-40.08(100\text{ C})$ ;  
 $-35.45(150\text{ C})$ ;  $-31.71(200\text{ C})$ ;  $-28.74(250\text{ C})$ ;  $-26.36(300\text{ C})$

-----  
Ag+ ISE NaNO<sub>3</sub> 25°C 0.10M U 1968HRa (14247) 883  
 $K_{so}=-50.83$

-----  
Ag+ sol NaClO<sub>4</sub> 20°C 1.0M U 1966SWb (14248) 884  
 $K_s(1/2Ag_2S+1/2H_2S)=-7.89$   
 $K_s(1/2Ag_2S+1/2H_2S+HS)=-4.02$   
 $K_s(Ag_2S+2HS)=-4.82$   
 $K_{so}(Ag_2S)=-49.7$

-----  
Ag+ ISE non-aq 20°C 100% U 1966THb (14249) 885  
 $*K(Ag_2S(s)+H=2Ag+HS)=-24.4$

Medium: liquid NH<sub>4</sub>NO<sub>3</sub>(NH<sub>3</sub>)1.3

-----  
Ag+ oth none 25°C 0.0 U I 1964PCa (14250) 886  
From thermodynamic data.  $K(0.5Ag_2L(s)+H=Ag+0.5H_2S)=-13.80$ . Alternative value  
 $K=-14.09$ . 0.1 ClO<sub>4</sub>, by Ag electrode,  $K=-14.20$

-----  
Ag+ sol oth/un 25°C 0.0 U 1963CLa (14251) 887  
 $K(Ag+H_2S=AgSH+H)=9.23$   
 $K(Ag+2H_2S=Ag(SH)_2+2H)=4.0$

-----  
Ag+ sol oth/un 30°C 0.0 U 1963CLa (14252) 888  
 $K(Ag_2S(s)+4S_4=2Ag(S_4)_2+S)=-7.6$   
Ag<sub>2</sub>S=acanthite(s). Also other solubilities

-----  
Ag+ ISE none 25°C 0.0 U 1960MTc (14253) 889  
 $K(AgHL(s)=Ag+HL)=-26.05$

-----  
Ag+ oth none 25°C 0.0 U T 1959CZa (14254) 890  
 $K_{so}(Ag_2L)=-49.20$   
From thermodynamic data.  $K_{so}=-39.42(100\text{ C})$ ,  $-35.30(200\text{ C})$ ,  $-22.20(400\text{ C})$ ,  
 $-17.27(600\text{ C})$

Ag+ sol NaClO4 25°C 0.10M U K1=20.3 1958SGa (14255) 891  
 Kso(Ag2L)=-50  
 K(Ag2L(s)+H=2Ag+HL)=-35.2  
 K(Ag+HL)=13.6  
 K(AgHL+HL)=4.1

Also by Ag electrode. K(AgHL2+H)=9.5

-----  
 Ag+ ISE none 25°C 0.0 U 1952GGc (14256) 892  
 Kso(Ag2L)=-49.15

-----  
 Ag+ oth none 25°C 0.0 U 1952LAb (14257) 893  
 Kso(Ag2L(alpha))=-50.26  
 Kso(Ag2L(beta))=-50.07

From thermodynamic data. Ag2L(alpha) is orthorhombic

-----  
 Ag+ oth none 25°C 0.0 U I 1949THa (14258) 894  
 Kso(Ag2L)=-48.07

From thermodynamic data. K(0.5Ag2L(s)+H=Ag+0.5H2S(g))=-13.82. In 0.1 M ClO4, by solubility, 20 C: K(0.5Ag2S(s)+0.5H2S(g)=AgHL)=-5.86, K(AgL+H)=5.28

-----  
 Ag+ ISE none 10°C 0.0 U 1936RAa (14259) 895  
 Kso(Ag2L)=-53.98

-----  
 Ag+ sol none 25°C 0.0 U 1935KIa (14260) 896  
 Kso(Ag2L)=-51.02

I=0 corr. By Ag electrode Kso=-51.22

-----  
 Ag+ ISE oth/un 25°C var U 1931K0a (14261) 897  
 Method: Ag electrode. K(0.5Ag2L(s)+H=Ag+0.5H2S(g))=-13.2

-----  
 Ag+ ISE oth/un 10°C var U I 1922JCa (14262) 898  
 Kso(Ag2L)=-49.5

By Ag electrode. Medium:NaHS. In Na2S Kso=-50.25

-----  
 Ag+ ISE oth/un 25°C var U 1908KNa (14263) 899  
 Kso(Ag2L)=-49.41

-----  
 Ag+ sol oth/un 25°C var U 1904LUa (14264) 900  
 Kso(Ag2L)=-50.64

Medium: KCN. By Ag electrode, room temp, 0.1 NaSH: Kso=-47.75

\*\*\*\*\*

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

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

-----  
 Ag+ sp non-aq 25°C 100% C K1=0.68 1998AEa (14625) 901  
 Medium: N,N-Dimethylthioformamide. Methods: IR and FT Raman spectroscopy.  
 Ligand is S-bonded (thiocyanate).  
 -----



Ag+            dis NaNO3    25°C    1.0M C                            19970Da (14626) 902

K3=1.83

K4=1.22

Method: solvent extraction into CHCl3 or MIBK.

-----  
Ag+            ISE mixed    25°C            C            B2=8.0            1990TMa (14627) 903

B3=9.0

Medium 0.4 M LiNO3 in 25% mass DMSO/H2O

Also for 100% H2O B2=7.9; B3=9.0; B4=9.7

-----  
Ag+            cal oth/un    25°C    0.10M C    H                            1989HKa (14628) 904

Medium: 0.10 M KSCN. DH(K1)=-86.6 kJ mol<sup>-1</sup>.

-----  
Ag+            ISE NaNO3    25°C    0.0    U    I    M                            1988TEa (14629) 905

B(AgLBr)=8.5

B(AgLBr2)=9.2

B(AgL2Br)=9.3

B(AgLBr3)=8.2

B(AgL2Br2)=8.8, B(AgL3Br)=9.5. Data extrapolated to 0 from 2.0,1.0,0.4 NaNO3

-----  
Ag+            ISE non-aq    87°C    100%    U            M    K1=3.58    B2=6.19    1987BPa (14630) 906

B3=7.48

B(AgClL)=6.55

B(AgClL2)=7.34

B(AgCl2L)=7.13

Medium: fused acetamide. K(AgCl+L)=2.89, K(AgCl2+L)=1.36

-----  
Ag+            ISE non-aq    25°C    100%    U    IH    K1=5.51    B2=8.10    1987JPa (14631) 907

Medium: tetrahydrothiophene, 0.1M Bu4NBF4

-----  
Ag+            ISE non-aq    25°C    100%    C    H    T    K1=3.64    B2=5.56    1986AIb (14632) 908

B(2Ag+SCN)=5.26

Medium: DMSO, 0.1 M NH4ClO4. DH(K1)=-1.5; DH(B2)=-1.4; DH(Ag2(SCN)2)=-1.1

-----  
Ag+            ISE oth/un    25°C    1.00M    U    T    HM    K1=6.7    B2=8.5    1986MLa (14633) 909

B3=10.0

DH(K1)=-24.3 kJ mol<sup>-1</sup>; DH(B2)=-39.8; DS(K1)=46.1 J K<sup>-1</sup> mol<sup>-1</sup>;

DS(B2)= 28.5. Ternary complexes with S2O3<sup>2-</sup> and NH3 ligands

-----  
Ag+            EMF KNO3    20°C    1.0M C            M    K1=7.43            1984DBb (14634) 910

B(Ag(ta)SCN)=10.08

B(Ag(ta)(tu)SCN)=12.55

B(Ag(tu)SCN)=9.86

B(Ag(tu)2SCN)=12.81

ta is thioacetamide. tu is thiourea. Method: Ag/Ag+ electrode.

-----  
Ag+            EMF R4N.X    25°C    1.0M C            M    K1=6.22            1984DBc (14635) 911

B(Ag(NH3)L)=9.29

B(Ag(NH3)(S2O3)L)=14.11

B(Ag(S2O3)L)=11.03

Method: Ag/Ag(I) electrode. Medium: 1.0 M NH<sub>4</sub>NO<sub>3</sub>.

---

Ag+ gl oth/un 25°C 0.30M U M B2=7.9 1982TMb (14636) 912  
B3=9.0  
B4=9.7

Medium: LiNO<sub>3</sub>. In 60% w/w acetone/H<sub>2</sub>O, B2=9.3, B3=10.7, B4=11.5

---

Ag+ EMF oth/un 25°C 0.40M U I K1=4.4 B2=7.9 1981TMc (14637) 913  
B3=9.0  
B4=9.7

In w/w 80% acetone/H<sub>2</sub>O: B2=10.4; B3=11.0; B4=12.0

---

Ag+ sp non-aq 20°C 100% U T H 1978GGa (14638) 914  
K(Ag(NH<sub>3</sub>)<sub>4</sub>+L=Ag(NH<sub>3</sub>)<sub>3</sub>L)=0.49

Medium: liquid NH<sub>3</sub>. Also data at -40 C. DH=8.2 kJ mol<sup>-1</sup>; DS=37 J K<sup>-1</sup> mol<sup>-1</sup>

---

Ag+ sol none 25°C 0.0 C TIH 1976DMb (14639) 915  
Kso(AgSCN)=-12.02

Data for 15-35 C. Data for 0.0025-0.025 M NaClO<sub>4</sub>, corrected to I=0.0 M.

DH(Kso)=68.58 kJ mol<sup>-1</sup>, DS(Kso)=-103.3 J K<sup>-1</sup> mol<sup>-1</sup>.

---

Ag+ EMF oth/un 25°C 1.0M U T 1976PPe (14640) 916  
B4=10.67  
B(Ag<sub>2</sub>(SCN)<sub>6</sub>)=22.1  
Kso(AgSCN)=-11.95 (I=0)

Method: Ag/Ag+ electrode. Medium: 0.01-3.5 m KSCN. Data for 50 and 70 C.

DH(Kso)=90 kJ mol<sup>-1</sup>, DH(B4)=-100 kJ mol<sup>-1</sup>, DH(Ag<sub>2</sub>(SCN)<sub>6</sub>)=-190 kJ mol<sup>-1</sup>.

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Ag+ EMF oth/un 25°C 0.10M U K1=5.19 1975LMa (14641) 917

---

Ag+ sol NaClO<sub>4</sub> 25°C 1.00M U M 1975MAb (14642) 918  
B(Ag(S<sub>2</sub>O<sub>3</sub>)(SCN))=12.07

---

Ag+ EMF mixed 30°C 100% U I T B2=8.7 1971BPb (14643) 919  
Kso=-8.6

Medium: 2-pyrrolidinone, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>

---

Ag+ oth mixed 25°C 80% U I B2=8.0 1971CMA (14644) 920  
Kso=-7.6

Medium: DMSO/H<sub>2</sub>O, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>. In 60-70% DMSO, B2=7.9. In 0%, Kso=-11.6.  
40%, Kso=-9.05. 70%, Kso=-7.8

---

Ag+ con non-aq ? 100% U B2=8.4 1970DMA (14645) 921  
B(Ag<sub>2</sub>L)=7.6  
B(Ag<sub>2</sub>L<sub>3</sub>)=15.9  
B(Ag<sub>3</sub>L<sub>4</sub>)=23.5  
Kso=-7.6

Medium: DMSO, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>

---

Ag+ ISE non-aq 22°C 100% U T B2=16.0 1969CLa (14646) 922

B3=18.7  
Kso=-16.4

Medium: propene carbonate

---

Ag+            ISE NaNO3   60°C   1.0M U T H                            1969GUa (14647) 923

B4=8.47  
Kso=-9.78

K(so)=-10.15(50 C), -9.34(70 C), -8.91(80 C), -8.60(90 C).  
B3=7.45(80 C), 7.17(90 C); DH(Kso)=86.6 kJ mol<sup>-1</sup>

---

Ag+            ISE non-aq   98°C   100%   U                            B2=6.5                            1969GUa (14648) 924

B3=7.79  
Kso=-7.88

Medium: acetamide, 1 M NaNO3

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Ag+            con non-aq   25°C   100%   U                            K1=5.46    B2=7.46                            1969MKe (14649) 925

Medium: pyridine

---

Ag+            vlt non-aq   40°C   100%   U   I                            1969PVb (14650) 926

B3=10.7  
Kso=-13.7

Medium: N-methylacetamide, 0.1 M Et4NClO4; Kso=-11.2 in H2O

---

Ag+            ISE non-aq   25°C   100%   U                            B2=11.30                            1969VKa (14651) 927

Kso=-10.26

Medium: N-methyl-2-pyrrolidone

---

Ag+            ISE non-aq   20°C   100%   U                            B2=16.4                            1968BBb (14652) 928

Kso=-16.9

Medium: Nitromethane

---

Ag+            ISE non-aq   30°C   100%   U                            T B2=16.04                            1968DLa (14653) 929

Kso=-16.27

Medium: sulpholan, 0.1 M Et4NClO4

---

Ag+            sol KNO3    20°C   2.0M U                            1968GYa (14654) 930

Ks(3AgL(s)+3L=Ag3L6)=-1.35

---

Ag+            sol non-aq   24°C   100%   U                            1968LAc (14655) 931

B(Ag2L)=6.40

Medium: Me2SO, 0.5 M Et4NClO4

---

Ag+            oth non-aq   ?   100%   U                            K1=2.55    B2=4.44                            1968LMa (14656) 932

B3=4.49  
B(Ag2L)=0.15  
B(Ag2L2)=0.42

Method: infrared spectra. Medium: pyridine

---

Ag+            ISE non-aq   25°C   100%   U   I   T   K1=2.24    B2=3.83                            1968MLa (14657) 933

B3=3.69

B(Ag<sub>2</sub>L)=2.34

Medium: pyridine, 1.5M-pyHClO<sub>4</sub>. Without pyHClO<sub>4</sub>: K<sub>1</sub>=2.54, B<sub>2</sub>=4.6

---

Ag+            ISE non-aq 25°C 100% U    I            B<sub>2</sub>=11.9            1967AKa (14658) 934  
Kso=-11.5

Medium: Me<sub>2</sub>NCHO. Kso=-13.9(MeOH), -9.9(HCONH<sub>2</sub>), -10.5(Me<sub>2</sub>NCOMe), -6.5(Me<sub>2</sub>SO),  
-9.6(MeCN), -8.5((Me<sub>2</sub>N)<sub>3</sub>PO), B<sub>2</sub>=11.4(Me<sub>2</sub>NCOMe), 7.4(Me<sub>2</sub>SO), 9.7((Me<sub>2</sub>N)<sub>3</sub>PO).

---

Ag+            sol oth/un 25°C var U            1959DSb (14659) 935  
B<sub>4</sub>=ca.9

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Ag+            sol oth/un 20°C var U TIH            1956GOb (14660) 936  
K(AgL(s)+3L=AgL<sub>4</sub>)=-0.84  
B<sub>4</sub>=10.54(Ag electrode), 9.45(40 C), 8.27(60 C). DH(B<sub>4</sub>)=-106.7 kJ mol<sup>-1</sup>.  
Data also for acetone/H<sub>2</sub>O mixtures

---

Ag+            ISE oth/un 12°C var U H            1956KL a (14661) 937  
Kso=2.86-4290/T  
DH=82.3 kJ mol<sup>-1</sup>; Kso: K(AgL(s)=Ag+L); temperature:12-85 C

---

Ag+            EMF none 25°C 0.0 U H            1956V Sa (14662) 938  
K(AgL(s)=Ag+L)=-12.00  
DH=94.4 kJ mol<sup>-1</sup>, DS=86.9. By solubility K=-12.03

---

Ag+            oth KN O<sub>3</sub> 25°C 2.20M U            1955L Na (14663) 939  
K(AgL(s)+L=AgL<sub>2</sub>)=-3.60  
K(AgL(s)+2L=AgL<sub>3</sub>)=-2.10  
K(AgL(s)+3L=AgL<sub>4</sub>)=-1.19  
K(2AgL(s)+4L=Ag<sub>2</sub>L<sub>6</sub>)=-2.05  
K(nAgL(s)+(n+2)L=(Ag)nL(2n+2))=-1.78-0.15n. Method: tyndallometry,  
nephelometry

---

Ag+            sol NaClO<sub>4</sub> 25°C 4.0M U            K<sub>1</sub>=4.59 B<sub>2</sub>=8.29 1955L Na (14664) 940  
K(AgL(s)=Ag+L)=-12.11  
K(AgL(s)=AgL)=-7.52  
K(AgL(s)+L=AgL<sub>2</sub>)=-3.82  
K(AgL(s)+2L=AgL<sub>3</sub>)=-2.05  
K<sub>3</sub>=1.77, K<sub>4</sub>=1.20, B(Ag<sub>2</sub>L<sub>6</sub>)=22.26, K(AgL(s)+3L=AgL<sub>4</sub>)=-0.85, K(2AgL(s)+4L=  
Ag<sub>2</sub>L<sub>6</sub>)=-1.96, K(nAgL(s)+(n+2)L=(Ag)nL(2n+2))=0.08n-2.13 (n>1)

---

Ag+            ISE none 25°C 0.0 U I            K<sub>1</sub>=4.75 B<sub>2</sub>=8.23 1955L Na (14665) 941  
K<sub>3</sub>=1.22  
K<sub>4</sub>=0.22  
K(AgL(s)=Ag+L)=-11.97  
K(AgL(s)=AgL)=-7.22  
K(AgL(s)+L=AgL<sub>2</sub>)=-3.74, K(AgL(s)+2L=AgL<sub>3</sub>)=-2.52, K(AgL(s)+3L=AgL<sub>4</sub>)=-2.3.

---

Ag+            ISE none 25°C 0.0 U H            1955S Ma (14666) 942  
K(AgL(s)=Ag+L)=-12.00  
DH=94.0 kJ mol<sup>-1</sup>, DS=85.7 J K<sup>-1</sup> mol<sup>-1</sup>

Ag+	sol	none	20°C	0.0	U		B2=9.78 B4=11.15	1954KTa (14667)	943
By Ag electrode B4=11.18									
Ag+	sol	oth/un	25°C	var	U		B4=10.70	1954KTa (14668)	944
Ag+	sol	oth/un	25°C	var	U		B4=10.70	1954KTa (14669)	945
Ag+	ISE	oth/un	rt	var	U		B2=10.60 B3=10.78	1954KTa (14670)	946
Ag+	sol	oth/un	20°C	var	U	I	K(AgL(s)+2L=AgL3)=-1.70 K(AgL(s)+3L=AgL4)=-1.17 B3=10.30 B4=10.83	1954KTa (14671)	947
[K(AgL(s)=Ag+L)=-12.00 assumed]. Also data for B2 and B3 in H2O/MeOH, EtOH and Me2CO									
Ag+	ISE	NaCl04	25°C	4.0M	U	I	K(AgL(s)=Ag+L)=-12.11 Ks(NaAgL2(H2O)2(s))=-11.79	1954LNa (14672)	948
Ks: NaAgL2(H2O)2(s)=Na+Ag+2L; at I=0 corr. Ks=-11.07									
Ag+	ISE	none	25°C	0.0	U		K(AgL(s)=Ag+L)=-11.95	1953CHa (14673)	949
Ag+	sol	none	25°C	0.0	U	I	B2=8.39 K3=1.23 K4=0.28 B4=9.90	1953CHa (14674)	950
Kso=-11.9 by tyndallometry. In 2.2 M KNO3 B2=7.57, K3=1.15, K4=1.00, B4=10.08 K(AgL(s)+L)=-3.60, K(AgL(s)+2L)=-2.10, K(AgL(s)+3L)=-1.10									
Ag+	ISE	oth/un	20°C	var	U	T H	Ks(AgL(s)=Ag+L)=-12.36 B4=11.19	1953JAb (14675)	951
DH(Ks)=93.3 kJ mol <sup>-1</sup> ; Ks=-11.48(35 C), -10.77(50 C), -10.06(66 C). DH(B4)=-83.7. B4=10.54(35 C), 9.81(50 C), 9.18(66 C)									
Ag+	ISE	none	29°C	0.0	U		K(AgL(s)=Ag+L)=-11.85	1952APa (14676)	952
Ag+	sol	oth/un	25°C	var	U		B4=11.0 B(AgLI)=12.15	1952YPa (14677)	953
K(AgL(s)=Ag+L)=-11.94; K(AgI(s)=Ag+I)=-16.07 assumed									

-----  
Ag+ kin oth/un 0°C var U H 1949JAb (14678) 954  
DH(B4)=-117 kJ mol<sup>-1</sup>; temperature:0-45 C  
-----

Ag+ ISE oth/un 25°C var U 1933MAa (14679) 955  
B4=10.89  
-----

Ag+ ISE oth/un 18°C 0.10M U 1930MAa (14680) 956  
K(AgL(s)=Ag+L)=-12.0  
Medium: KSCN  
-----

Ag+ EMF alc/w 25°C 100% U 1929BHa (14681) 957  
K(AgL(s)=Ag+L)=-13.74  
Medium: methanol; method: emf with Ag electrode  
-----

Ag+ EMF none 18°C 0.0 U T H 1912KIa (14682) 958  
K(AgL(s)=Ag+L)=-12.31  
DH=89.1 kJ mol<sup>-1</sup>. K=-11.94(25 C). Method: emf with Ag electrode  
-----

Ag+ sol oth/un 25°C var U 1908HIa (14683) 959  
Ks(AgL)/Ks(AgCl)=-2.25  
Ks(AgL)/Ks(AgBr)=0.27  
Ks: K(AgL(s)=Ag+L)  
-----

Ag+ con oth/un 100°C dil U 1906B0a (14684) 960  
K(AgL(s)=Ag+L)=-8.82  
-----

Ag+ sol oth/un 25°C var U 1904BEa (14685) 961  
B4=11.14  
K(AgL(s)=Ag+L)=-11.93 assumed  
-----

Ag+ EMF none 20°C 0.0 U B2=9.78 1904BEa (14686) 962  
B4=11.18  
Method: Ag electrode  
-----

Ag+ sol oth/un 25°C var U 1903ACa (14687) 963  
K(AgL(s)=Ag+L)=-11.81  
B(Ag(NH3)2)=7.17 assumed  
-----

Ag+ con oth/un 20°C dil U 1903B0b (14688) 964  
K(AgL(s)=Ag+L)=-12.16  
-----

Ag+ EMF oth/un 25°C var U 1902KTa (14689) 965  
K(AgL(s)=Ag+L)=-11.93  
Method: Ag electrode  
-----

Ag+ cal oth/un 13°C dil U H 1892J0a (14690) 966  
DH(AgL(s)=Ag+L)=93.9 kJ mol<sup>-1</sup>; 13.5 C  
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\*\*\*\*\*  
S03-- H2L Sulfite CAS 7782-99-2 (801)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	NaCl04	25°C	0.18M	U			B2=8.4 B(Ag(NH3)L)=8.54 B(Ag(NH3)2L)=9.24	1972JJa (15414)	967
Ag+	ISE	oth/un	25°C	var	U			B3=8.7	1963NAb (15415)	968
Ag+	ISE	oth/un	9°C	var	U	T H		K1=6.3 K3=0.52	B2=9.08 1957BCa (15416)	969
Also by solubility. Medium: Na2L. At 25 C: B2=8.68, K3=0.24. 50 C: B2=8.12, K3=-0.21; 69 C: 7.72, -0.74. By calorimetry DH(B2)=-46.0 kJ mol-1, DH(K3)=-21										
Ag+	sol	none	25°C	0.0	U			K1=5.60 B3=9.00 Kso(Ag2L)=-13.86	B2=8.68 1956CDc (15417)	970
I=0 corr. Also by Ag electrode										
Ag+	sol	oth/un	20°C	var	U	T H		B2=8.33	1956KLa (15418)	971
B2=8.07(42 C), 7.85(60 C). DH(B2)=-22.6 kJ mol-1										
Ag+	ISE	NaNO3	25°C	2.0M	U			K1=5.4	B2=7.8 1955TSb (15419)	972
Ag+	sol	oth/un	29°C	var	U	T H		B2=8.21	1951JSa (15420)	973
Also by Ag electrode. B2=4.634-1082/T=8.56(1.6 C), 8.45(10.2 C), 8.33(20.2 C) 8.08(39.9 C), 7.97(50.5 C). DH(B2)=-20.7 kJ mol-1; DS=88.7 J K-1 mol-1										
Ag+	sol	oth/un	25°C	var	U	M			1941TGb (15421)	974
K(AgCl(s)+2L=AgL2+Cl)=-1.29										
Ag+	sol	none	25°C	0.0	U	M		B2=8.52	1930RHa (15422)	975
K(AgCl(s)+2L=AgL2+Cl)=-1.24										
Ag+	sol	oth/un	25°C	var	U			B2=8.40	1912LLa (15423)	976
*****										
SO4--		H2L		Sulfate		CAS		7664-93-9 (15)		
Sulfate;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	non-aq	30°C	100%	C	I		1986Rka (15783)	977
							Kso(Ag2SO4)=-17.94		
Medium: dioxane. Data for 0-1.0 mole fraction Me2SO in dioxane.									
Ag+	sol	NaNO3	25°C	0	U	T H		1976MSc (15784)	978
Ks=-4.85. Ks=11.464 - 3055/T - 0.2034T. DH=23.9 kJ mol <sup>-1</sup>									

Ag+ sol mixed 25°C 20% U I 1973ESa (15785) 979  
Kso=-7.09  
Medium: DMSO/H2O. 0% DMSO: Kso=-5.00; 10%:-6.13; 30%:-7.95; 50%:-9.39;  
80%:-11.37; 100%:-12.68. m units

---

Ag+ EMF KNO3 390°C ? U T K1=1.12 1973VBb (15786) 980  
K(Ag+AgL)=0.9  
Medium: molten KNO3; unit: Temkin fraction. At 349 C: K1=1.12

---

Ag+ oth none 50°C 0.0 U T K1=1.4 1969HEa (15787) 981  
Estimated from literature data. K1=1.4(60 C), 1.6(100 C), 1.9(150 C),  
2.2(200 C)

---

Ag+ ISE NaClO4 25°C 3.0M U K1=0.24 B2=0.3 1969MMc (15788) 982

---

Ag+ oth none 25°C 0.0 U T 1968KRa (15789) 983  
Kso=-4.84  
Evaluated from literature data. Kso=-4.63(50 C), -4.52(100 C), -4.71(150 C),  
-5.10(200 C)

---

Ag+ EMF NaClO4 25°C 2.0M U K1=0.31 B2=0.19 1967CCd (15790) 984  
B3=0.40

---

Ag+ sol oth/un 25°C 0.0 U T 1967LHa (15791) 985  
Kso=-4.81  
Kso=-4.67(50 C), -4.58(75 C), -4.54(100 C)

---

Ag+ cal oth/un 25°C 0.0 U H 1965HWe (15792) 986  
Medium: 0 corr. DH(K1)=6.27 kJ mol<sup>-1</sup> DS=46 J K<sup>-1</sup> mol<sup>-1</sup>; DHso=17.2, DS=-37  
Method: from thermodynamic data

---

Ag+ ISE non-aq 650°C 100% U K1=1.5 1963WHa (15793) 987  
Medium: (Li/K)SO4 eutectic. K1=1.4 to 1.5, x units

---

Ag+ sol non-aq 275°C 100% U T K1=0.3 1962SIc (15794) 988  
Medium: (Na/K)NO3 eutectic. K1=0(300, 325 C), m units

---

Ag+ sol oth/un 25°C 0.0 U T H 1960SLa (15795) 989  
Kso(Ag2L)=-4.835  
Kso=-4.62(50 C), -4.54(75 C), -4.53(100 C), -4.59(125 C), -4.71(150 C),  
-5.11(200 C). DH(so)=18.7 kJ mol<sup>-1</sup>, DS=-29.8(25 C); DH=-40.3, DS=-183(200 C)

---

Ag+ ISE oth/un 25°C 0.0 U T 1959PLa (15796) 990  
Kso(Ag2L)=-4.92  
25 to 60 C. Kso=491.1/T=11.305+0.0159T (T in Kelvin)

---

Ag+ sol oth/un 25°C 0.0 U 1957KEc (15797) 991  
Kso(Ag2L)=-4.77

---

Ag+ sol oth/un 25°C 0.0 U T 1954TOa (15798) 992



Kso(Ag2L)=-4.86

I=0 corr. Kso=-4.97(18 C), -4.82(31 C)

---

Ag+	ISE NaCl04	25°C	3.0M U	K1=0.23	B2=0.28	1952LEb (15799)	993
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Ag+	sol oth/un	25°C	0.0 U			1943VMa (15800)	994
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Kso(Ag2L)=-4.80

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Ag+	con oth/un	18°C	0.0 U	K1=1.3		1930RDa (15801)	995
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S203--                      H2L      Thiosulfate                      CAS 73686-28-7 (177)

Thiosulfate;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	KNO3	23°C	0.10M U			K1= 9.47   B2=13.15	1991TEa (16723)	996
-----	-----	------	------	---------	--	--	---------------------	-----------------	-----

B3=15.46  
B(Ag2L3)=24.01  
B(Ag3L4)=37.81

---

Ag+	ISE	oth/un	25°C	1.00M U	T HM		K1=8.49   B2=12.2	1986MLa (16724)	997
-----	-----	--------	------	---------	------	--	-------------------	-----------------	-----

DH(K1)=-45.2 kJ mol<sup>-1</sup>; DH((B2))=-33.1; DS(K1)=25.1 J K<sup>-1</sup> mol<sup>-1</sup>;  
DS(B2)=121.4. Ternary complexes with SCN and NH3 ligands

---

Ag+	ISE	KNO3	25°C	1.00M U	T HM		K1=9.10   B2=12.39	1985MMd (16725)	998
-----	-----	------	------	---------	------	--	--------------------	-----------------	-----

DH(K1)=-60.8 kJ mol<sup>-1</sup>; DH(B2)=-73.0; DS(K1)=-29.7 J K<sup>-1</sup> mol<sup>-1</sup>; DS(B2)=-8.0  
Ternary complexes with: thiourea, chloride, iodide

---

Ag+	ISE	KNO3	25°C	0.10M C			K1=9.52   B2=13.08	1985YWa (16726)	999
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Ag+	EMF	KNO3	20°C	1.0M C		M	K1=9.66   B2=12.78	1984DBb (16727)	1000
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B(Ag(tu)L)=12.13  
B(Ag(tu)2L)=13.80  
B(Ag(I)L)=12.67  
B(Ag(tu)(I)L)=14.36

tu is thiourea. B(Ag(tu)L2)=13.81. Method: Ag/Ag+ electrode.

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Ag+	EMF	R4N.X	25°C	1.0M C			K1=8.38   B2=11.86	1984DBc (16728)	1001
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Method: Ag/Ag(I) electrode. Medium: 1.0 M NH4NO3.

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Ag+	gl	oth/un	25°C	0.30M U		M	K1=9.3   B2=12.4	1982TMb (16729)	1002
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B3=13.8

Medium: LiNO3. In 60% w/w acetone/H2O, K1=11.6, B2=14.6, B3=16.7

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Ag+	EMF	KNO3	25°C	1.00M C	T M		K1=9.81   B2=12.5	1980MBa (16730)	1003
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B(AgL(thiourea))=11.77  
B(AgLNCS)=10.38  
B(AgL2NCS)=13.94  
B(AgL(NCS)2)=11.81

Data also at 5, 10, 20 and 30 C.

Method: Ag/Ag<sup>+</sup> electrode

-----  
Ag+ EMF KNO3 25°C 1.00M C T M 1980MBa (16731)1004  
B(AgL2(thiourea))=10.42  
B(AgL(thiourea)NCS)=13.03  
B(AgL(thiourea)(NCS)2)=13.69  
B(AgL(thiourea)2)=13.85  
B(AgL(thiourea)2NCS)=15.20. Data also at 5, 10, 20 and 30 C.  
-----

Ag+ sol NaCl04 25°C 1.00M U M 1975MAb (16732)1005  
B(Ag(S2O3)(SCN))=12.07  
-----

Ag+ ISE KNO3 25°C 1.00M C T HM K1=9.23 B2=12.50 1974BMb (16733)1006  
B(AgLA)=11.96  
B(AgL2A)=14.16  
B(AgLA2)=13.35  
DH(K1)=-58.9 kJ mol<sup>-1</sup>, DH(B2)=-80, DH(AgLA)=-79, DH(AgL2A)=-112, DH(AgLA2)=-90. A=thiourea. Data also at 10 C and 30 C  
-----

Ag+ sol oth/un 25°C 0.0 U T B2=13.83 1974GHb (16734)1007  
B2=13.55(35 C); 14.18(45 C)  
-----

Ag+ ISE KNO3 25°C 0.10M U B2=13.2 1974MKd (16735)1008  
-----

Ag+ ISE NaNO3 25°C 1.0M U I B2=13.0 1972PRa (16736)1009  
B(Ag2L3)=24.5  
B(Ag3L4)=38.2  
When I=2 M NaNO3: B2=12.83, B(Ag2L3)=23.9, B(Ag3L4)=ca.38; when I=0 (corr):  
B2=13.64, B(Ag2L3)=25.9, B(Ag3L4)=40.0  
-----

Ag+ oth oth/un 25°C 0? U K1=8.9 B2=13.50 1969MAc (16737)1010  
K3=0.8  
-----

Ag+ ISE oth/un 25°C 1.0M U M B2=12.63 1967BPf (16738)1011  
B3=12.76  
B(AgL2Cl)=10.84  
B(AgL2Br)=12.02  
B(AgL2I)=13.25  
B(AgL2(CN))=15.68; B(AgLBr2)=11.30, B(AgLI2)=13.62; B(AgLBr3)=9.99,  
B(AgLI3)=13.52, B(AgL(CN)2)=21.28; B(AgL2(CN)2)=18.15  
-----

Ag+ sol NaCl04 25°C 4.00M U M K2=5.36 1958NIa (16739)1012  
K3=0.79  
B(Ag2L4)=26.3  
B(Ag3L5)=39.85  
B(Ag6L8)=78.62  
Ks(NaAgLH2O=(Na+H2O)+Ag+L)=-13.24, K(NaAgLH2O(s)=(Na+H2O)+AgL)=-5.89,  
K(NaAgLH2O(s)+L=(Na+H2O)+AgL2)=-0.52, Kso(NaAgLH2O)=-12.64  
-----

Ag+ ISE none 25°C 0.0 U T H B2=13.46 1957CHE (16740)1013  
-----

B2=13.00(35 C), 12.43(50 C), 11.68(68 C) B2=4166\*T-0.510  
 DH(B2)=-79.7 kJ mol<sup>-1</sup>, DS=-9.6 J K<sup>-1</sup> mol<sup>-1</sup>

-----  
 Ag+ ix oth/un 25°C 1.0M U 1957MAb (16741)1014  
 K3=0.4  
 -----

Ag+ ISE oth/un 70°C var U H K1=7.44 B2=11.60 1955CPa (16742)1015  
 DH(K1)=-54.8 kJ mol<sup>-1</sup>, DH(K2)=-18.8  
 -----

Ag+ sol oth/un 25°C dil U K1=8.87 1953CPa (16743)1016  
 -----

Ag+ ISE none 20°C 0.0 U K1=8.82 B2=13.46 1953CPa (16744)1017  
 K3=0.69  
 -----

Ag+ ISE NaNO3 20°C 0.20M U K1=10.00 B2=13.36 1953JAb (16745)1018  
 -----

Ag+ sol oth/un ? var U M 1952YPa (16746)1019  
 B(AgClL)=10.15  
 B(AgBrL)=12.39  
 B(AgIL)=14.57  
 -----

Ag+ sol none 25°C 0.0 U K1=2.40 1951DMb (16747)1020  
 -----

Ag+ ISE oth/un 21°C 0.30M U T B2=13.17 1949BRa (16748)1021  
 Medium:0.3-0.4 Na2L. B2=13.19(17 C), 12.78(30 C)  
 -----

Ag+ kin oth/un 25°C var U H 1949JAb (16749)1022  
 0-45 C. DH(B2)=-80 kJ mol<sup>-1</sup>  
 -----

Ag+ ISE NaClO4 25°C 2.00M U B2=12.78 19460Aa (16750)1023  
 K3=0.28  
 B(Ag2L2)=22.1?  
 -----

Ag+ ISE oth/un rt? var U B2=13.3 1936FRa (16751)1024  
 -----

Ag+ ISE oth/un 25°C var U B2=13.73 1933MAa (16752)1025  
 -----

Ag+ sol oth/un 5°C dil U T H 1931CRa (16753)1026  
 K1.Kso(AgCl)=-1.36  
 K1.Kso=-0.60(45 C). DH(K1)=-32.2 kJ mol<sup>-1</sup>  
 -----

Ag+ ISE oth/un ? var U K1=13.38 1924PAa (16754)1027  
 -----

Ag+ ISE oth/un ? var U B2=12.99 1903BOa (16755)1028  
 K3=0.55  
 -----

Medium: Na2L

\*\*\*\*\*

Se-- H2L Selenide (6335)  
 Selenide;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	sol	NaClO4	25°C	1.0M	U			K(2Ag+HL+OH)=48.5 K(Ag+2L+OH)=24.1	1970MGa (16934)	1029
Method: Ag2Se solubility using 110Ag tracer										
Ag+	oth	none	25°C	0.0	U			Kso=-63.7	1964BUE (16935)	1030
*****										
SeCN-		HL						Selenocyanate CAS 73102-11-2 (440)		
Selenocyanate;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	none	25°C	0.0	U T H			Kso(AgL(s)=Ag+L)=-14.01	1974DSb (16961)	1031
DH(Kso)=107.9 kJ mol <sup>-1</sup> , DS=94.6 J K <sup>-1</sup> mol <sup>-1</sup> . Kso=-13.41(35 C), -13.12(40 C), -12.83(45 C); -12.56(50 C)										
Ag+	sol	KN03	20°C	2.0M	U T			Ks(AgL(s)+2SCN)=-1.62 Ks(AgI(s)+2L)=-0.4	1965GSc (16962)	1032
At 25 C, Ag electrode: B(AgL3I)=14.5, B(AgL3(SCN))=13.4, BAgLI3)=14.66										
Ag+	sol	oth/un	20°C	var	U I			B(Ag2L)=11.7 B(Ag3L)=12.23 B(Ag4L)=12.32	1961GSa (16963)	1033
Medium: AgClO4 at various concentrations. In AgNO3: B(Ag2L)=11.7, B(Ag3L)=12.25, B(Ag4L)=12.04										
Ag+	ISE	alc/w	20°C	35%	U I			B2=13.86	1961GSd (16964)	1034
Medium: 35% w/w MeOH/H2O with KL at various conc.; B2=13.78(0%), 14.25(56%) 14.60(74%); B4=15.13(74%), 15.61(83%), 16.45(92%), 16.96(100%); Ag electrode										
Ag+	ISE	KN03	20°C	?	U I			B3=13.79	1959GPb (16965)	1035
In 7 M acetone/H2O: B3=14.58, B4=14.80										
Ag+	ISE	NaN03	25°C	0.30M	U			B2=10.7 B3=13.90	1956TOa (16966)	1036
Ag+	ISE	none	18°C	0.0	U			K(AgL(s)=Ag+L)=-15.40	1930BHa (16967)	1037
*****										
SeO3--		H2L						Selenite CAS 7783-00-8 (2391)		
Selenite;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo

-----  
Ag+ sol oth/un 25°C dil C 1993SPb (17023)1038

Kso(Ag2SeO3)=-15.76

Method: [Ag] determined by ion selective electrode. Medium: dil HNO3.  
-----

Ag+ sol NaClO4 25°C 1.0M U K1=2.42 B2=3.76 1969MGe (17024)1039

Kso=-15.58  
-----

Ag+ sol none 25°C 0.0 U H 1962SLb (17025)1040

Kso(Ag2L)=-15.55

DH(so)=44.7 kJ mol<sup>-1</sup>; DS=-147  
-----

Ag+ ISE none 25°C 0.0 U 1961LPc (17026)1041

Kso(Ag2L)=-14.74  
-----

Ag+ sol oth/un 20°C var U 1956CHE (17027)1042

Kso(Ag2L)=-15.01

\*\*\*\*\*  
SeO4-- H2L Selenate CAS 7783-08-6 (459)

Selenate;  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	sol	none	25°C	0.0	U	H			1959SZb (17091)1043	
-----	-----	------	------	-----	---	---	--	--	---------------------	--

Kso(Ag2L)=-8.91

I=0 corr. By calorimetry DH(so)-43.4 kJ mol<sup>-1</sup>  
-----

Ag+	sol	oth/un	25°C	dil	U				1942GKa (17092)1044	
-----	-----	--------	------	-----	---	--	--	--	---------------------	--

Kso(Ag2L)=-7.25  
-----

\*\*\*\*\*  
Te-- H2L Telluride (472)

Telluride;  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	oth	oth/un	25°C	0.0	U				1964BUE (17254)1045	
-----	-----	--------	------	-----	---	--	--	--	---------------------	--

Kso=-71.7

Estimated. Kso=-33.3(Zn++), -41.5(Cd++), -69.6(Hg++), -39.2(Tl+),

-44.7(Sn++), -46.3(Pb++)  
-----

\*\*\*\*\*  
TeO3-- H2L Tellurite CAS 10049-23-7 (1165)

Tellurate(IV)  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
-------	-----	--------	------	------	-----	-------	----	----------	-----------	--------

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Ag+	sol	oth/un	25°C	1.0M	U			B2=4.34	1972MKa (17271)1046	
-----	-----	--------	------	------	---	--	--	---------	---------------------	--

Kso=-17.85  
-----

Ag+	gl	oth/un	25°C	0.0	U				1965GPa (17272)1047	
-----	----	--------	------	-----	---	--	--	--	---------------------	--

Kso(Ag2L)=-2.43

Ks(Ag2H2L2)=-7.95

Ks(Ag7(OH)5L)=-5.6(?)

\*\*\*\*\*

V04--- H3L CAS 15457-75-7 (1586)

Vanadate; V02(OH)3-- or polymers

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

Ag+ ISE oth/un 20°C var U 1930BRa (17371)1048

Ks(AgHL=H+HL)=-6.3

Ks(Ag2L)=-13.7

Ks(Ag3L2(OH))=-24

\*\*\*\*\*

W04-- H2L Tungstate CAS 13783-36-3 (445)

Tungstate;

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

Ag+ sol NaNO3 25°C 0.50M U I 1982JBa (17422)1049

K(6Ag2L(s)+7H = 12Ag+HW6O21+3H2O) = -3.68

Ag+ sol oth/un 25°C dil U 1980GSb (17423)1050

Ks(Ag2W04)=-10.67

ISE also used

-----  
Ag+ sol NaNO3 25°C 1.00M C TIH 1980JBa (17424)1051

K(6Ag2W04(s)+7H+=12Ag+HW6O21+3H2O)=-2.1

-----  
Ag+ cal none 25°C 0.0 U H 1958GHa (17425)1052

DH(Kso(Ag2L))=61.5 kJ mol-1

-----  
Ag+ ISE none 25°C 0.0 U T H 1954PAa (17426)1053

Kso(Ag2L)=-11.26

DH(Kso)=50.7 kJ mol-1(25 C). Kso=-11.42(20 C), -11.11(30 C), -10.83(40 C)

-----  
Ag+ ISE oth/un 18°C var U 1934BGa (17427)1054

Kso(Ag2L)=-9.28

\*\*\*\*\*

CH2I2 L Di-iodomethane CAS 75-11-6 (2962)

Methylene iodide; CH2I2

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ sol oth/un 25°C ? U K1=1.31 1951AKb (17472)1055

\*\*\*\*\*

CH4N2S L Thiourea CAS 62-56-6 (51)

Thiocarbamide, Thiourea; (H2N)2CS

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

Ag+ ISE NaClO4 25°C 0.10M U K1=6.2 B2=11.2 1996MTa (17741)1056  
 B3=13.4  
 B(Ag2L)=9.1  
 B(Ag2L2)=16.1  
 B(Ag2L3)=21.7

Medium: 0.1 M HClO4; Ag-electrode

Ag+ EMF alc/w 25°C 100% M T H K1=9.86 B2=13.88 1994MGa (17742)1057  
 B3=16.46

Medium: EtOH, 0-40 C. DH(K1)=-107 kJ mol<sup>-1</sup>, DS=-171 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-46, DS=+110; DH(B3)=-138, DS=-147. Method:Ag elect. Other alkyl-thioureas also

Ag+ EMF KNO3 25°C 1.0M U T HM K1=7.59 B2=10.35 1993MGa (17743)1058  
 B(AgLC1)=8.33  
 B(AgLC12)=8.57  
 B(AgLBr)=9.36  
 B(AgLBr2)=10.39

B(AgL2Br)=12.53, B(AgLI)=11.82. 0-35 C. DH(K1)=-65 kJ mol<sup>-1</sup>, DS=-73 J K<sup>-1</sup> m<sup>-1</sup>  
 Data also for other mixed complexes

Ag+ EMF KNO3 25°C 1.0M U T HM K1=5.67 B2=7.44 1992MMc (17744)1059  
 B(AgLC1)=6.12  
 B(AgL2Cl)=8.90  
 B(AgLBr)=7.05  
 B(AgL2Br)=9.11

B(AgLI)=10.03 etc. 0-35 C. DH(K1)=-82 kJ mol<sup>-1</sup>, DS=-167 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-64, DS=-71. Data also for other mixed complexes

Ag+ EMF alc/w 25°C 100% M T H K1=8.63 B2=13.09 1990MMF (17745)1060  
 B3=15.94

Medium: MeOH, 0-40 C. DH(K1)=-127 kJ mol<sup>-1</sup>, DS=-261 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-66, DS=+24; DH(B3)=-118, DS=-92. Method:Ag electrode. Other alkyl-thioureas also

Ag+ ISE non-aq 25°C C B2=10.1 1990TMa (17746)1061  
 B3=11.7

Medium 0.4 M LiNO3 in 100% DMSO  
 Also for 100% H2O B2=10.7; B3=12.8; B4=13.5

Ag+ ISE oth/un 25°C 1.00M U B3=13 1986GKa (17747)1062

Ag+ ISE NaClO4 25°C 1.00M U K1=6.05 B2=10.71 1986KPa (17748)1063  
 B3=12.56  
 B4=13.95  
 B(Ag2L6)=31.09

Ag+ ISE KNO3 0°C 1.00M U M K1=7.87 B2=11.92 1985MMc (17749)1064  
 mixed complexes: with thioacetamide: B(AgLA)=11.92; with chloride: B=8.45;  
 B(AgLA2)=9.78; with bromide B=8.76; B(AgL2A)=13.69

Ag+ ISE KNO3 25°C 1.00M U T HM K1=8.09 B2=10.53 1985MMd (17750)1065  
B3=12.87

DH(K1)=-66.2 kJ mol<sup>-1</sup>; DH(B2)=-87.4; DH(B3)=-106.4,  
DS(K1)=-67.4 J K<sup>-1</sup> mol<sup>-1</sup>; DS(B2)=-91.7; DS(B3)=-110.8

-----  
Ag+ EMF KNO3 20°C 1.0M C T M K1=9.25 B2=10.21 1984DBb (17751)1066  
B3=12.48  
B(Ag(I)L)=12.12  
B(Ag(I)2L)=14.12

Also ternary complexes with thiosulfate. At 5 C, K1=8.16, B2=10.60,  
B3=13.25. Method: Ag/Ag+ electrode.

-----  
Ag+ ISE oth/un 25°C 0.10M U I K1=5.55 B2=10.54 1984PKa (17752)1067

-----  
Ag+ EMF oth/un 25°C 0.40M U I K1=7.1 B2=10.7 1981TMc (17753)1068  
B3=12.8  
B4=13.5

In w/w 80% acetone/H2O: K1=9.6; B2=12.4; B3=14.4; B4=15.5

-----  
Ag+ EMF KNO3 25°C 1.00M C T M K1=8.77 B2=11.29 1980MBa (17754)1069  
B3=13.92  
B(AgLNCS)=13.89  
B(AgL(NCS)2)=11.24  
B(AgL(NCS)3)=12.44

B(AgL2NCS)=12.40; B(AgL4(NCS)2)=13.20. Data also at 5, 10, 20 and 30 C  
Method: Ag/Ag+ electrode

-----  
Ag+ ISE mixed 25°C 82% U K1=8.85 B2=11.35 1979TBa (17755)1070  
B3=13.82

Medium: 82% formamide

-----  
Ag+ ISE mixed 25°C 0.20M U I K1=10.35 B2=11.90 1978BMb (17756)1071  
B3=13.34

Medium: 40 mol/l H2O in H2O/Dimethylformamide mixed solvent

-----  
Ag+ EMF NaClO4 25°C 0.02M C H K1=6.46 B2=10.90 1976MHc (17757)1072  
B3=12.88  
B(Ag2L3)=20.73

Method: Ag electrode. By calorimetry: DH(K1)=-81 kJ mol<sup>-1</sup>; DH(B2)=-113,  
DS(B2)=-171 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B3)=-127, DS(B3)=-181, DH(Ag2L3)=-217.

-----  
Ag+ ISE KNO3 25°C 1.00M U T H K1=7.69 B2=10.47 1974BMb (17758)1073  
B3=12.88

DH(K1)=-38.7 kJ mol<sup>-1</sup>, DH(B2)=-28.8, DH(B3)=-26.1. Data also at 10 and 30 C

-----  
Ag+ EMF none 25°C 0.00 U TI K1=7.30 B2=10.60 1973BMf (17759)1074  
B3=12.80  
B4=13.72

35 C, K1=6.52, B2=9.92, B3=12.03, B4=12.97. 45 C, K1=5.60, B2=9.34,  
B3=11.59, B4=12.15. Data also in 0.25 KNO3, 0.75 KNO3



Ag+	EMF KNO <sub>3</sub>	25°C 0.25M U TI	K1=7.30 B3=12.74 B4=13.64	B2=10.36	1973BMf (17760)1075
35 C, K1=6.48, B2=9.92, B3=12.22, B4=12.92. 45 C, K1=5.60, B2=9.34, B3=11.56, B4=12.04					
Ag+	EMF KNO <sub>3</sub>	25°C 0.75M U TI	K1=7.30 B3=12.68 B4=13.78	B2=10.60	1973BMf (17761)1076
35 C, K1=6.40, B2=9.92, B3=11.98, B4=12.95. 45 C, K1=5.60, B2=9.34, B3=11.53, B4=12.16					
Ag+	EMF KNO <sub>3</sub>	? 0.50M U	K1=7.26 B3=11.09 B4=11.02	B2=9.83	1971BMc (17762)1077
Ag+	ISE KNO <sub>3</sub>	30°C 0.50M U T	K1=7.04 K3=2.06 K4=0.68	B2=10.52	1969BLa (17763)1078
10 C: K1=7.00, K2=4.29, K3=2.11, K4=0.97					
Ag+	EMF mixed	? 25% U I			1969NPc (17764)1079
			B3=14.11		
Medium: 25-85% acetone B3(50%)=14.67, B3(75%)=15.42, B3(85%)=15.77					
Ag+	EMF diox/w	? 25% U I			1969NPc (17765)1080
			B3=14.08		
50% Dioxan/H <sub>2</sub> O, B3=14.70; 75%, B3=15.37; 85%, B3=15.65					
Ag+	ISE alc/w	25°C 85% U I			1967NPe (17766)1081
			B3=15.61		
Medium: 85% MeOH, 0.4(LiNO <sub>3</sub> ). B3=13.48(0%), 14.10(25%), 14.52(50%), 15.18(75%)					
Ag+	ISE alc/w	25°C 85% U I			1967NPe (17767)1082
			B3=15.66		
Medium: 85% EtOH, 0.4 M LiNO <sub>3</sub> . B3=14.22(25%), 14.62(50%), 15.37(75%) In propanol: B3=14.13(25%), 14.62(50%), 15.17(75%), 15.57(85%)					
Ag+	ISE diox/w	28°C 80% U			1964KKa (17768)1083
			B3=13.6		
Medium: 80% dioxan, 2 M NH <sub>4</sub> NO <sub>3</sub>					
Ag+	ISE alc/w	25°C 40% U			1961TKb (17769)1084
			B3=13.2		
Medium: 40% EtOH, 0.052 M NaC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>					
Ag+	ISE oth/un	25°C 0.0 U			1955FYa (17770)1085
			B3=13.05		

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Ag+ con oth/un 20°C 0.03M U 1924PAa (17771)1086

B3=13.9

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CH5N L Methylamine CAS 74-89-5 (155)

Methylamine; CH3.NH2

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

-----  
Ag+ gl KNO3 25°C 1.00M U K1=3.106 B2=6.806 1993GYa (17997)1087  
B(AgH-1L2)=-5.30

-----  
Ag+ gl KCl 25°C 0.10M U K1=3.06 B2=6.78 1980HAa (17998)1088

-----  
Ag+ gl none 25°C 0.00 U K1=3.18 B2=7.14 1971HTa (17999)1089

-----  
Ag+ sol oth/un 25°C ? U B2=8.86 1964SDb (18000)1090  
Medium: Cl-. In Br-: B2=6.67

-----  
Ag+ ISE alc/w 25°C 90% U I B2=7.51 1963PLa (18001)1091  
Medium: 90% MeOH. B2=6.72(0%), 7.10(30%), 7.13(50%), 7.15(60%), 7.43(80%)

-----  
Ag+ ISE oth/un 25°C 0.0 U B2=6.79 1955FYb (18002)1092

-----  
Ag+ gl oth/un 25°C 0.50M U K1=3.15 B2=6.68 1950BJa (18003)1093

-----  
Ag+ ISE oth/un 18°C 0.02M U B2=7.06 1935BWa (18004)1094  
By solubility, B2=7.16

-----  
Ag+ sol oth/un 16°C 0.10M U B2=6.98 1933TAa (18005)1095

-----  
Ag+ sol oth/un 25°C <0.1 U B2=6.79 1903BEa (18006)1096

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Ag+ ISE oth/un 25°C <0.2 U B2=6.81 1903EUa (18007)1097  
At I=0.02 M, 18 C: B2=7.05

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CH5N3S L CAS 79-19-6 (372)

Thiosemicarbazide; H2N.CS.NH.NH2

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

-----  
Ag+ EMF NaCl04 25°C 0.10M C H K1=7.50 B2=11.41 1976BBg (18064)1098  
B3=13.28  
B(Ag2L3)=21.58

Method:Ag electrode. Calorimetry: DH(K1)=-93.9 kJ mol<sup>-1</sup>, DS(K1)=-172 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-109, DS=-148; DH(B3)=-122, DS=-153; DH(Ag2L3)=-199, DS=-253

-----  
Ag+ ISE NaCl04 25°C 0.1M C I K1=7.55 B2=10.67 1976BBh (18065)1099  
B3=12.33  
B4=13.61

In 50% EtOH w/w, 0.1 M NaClO4: K1=7.93, B2=11.05, B3=13.05, B4=14.97  
In 50% acetone: K1=8.62, B2=11.62, B3=13.19, B4=14.65. Also in 25% acetone

-----  
Ag+ ISE alc/w 25°C 40% U 1961TKb (18066)1100  
B3=13.3

Medium: 40% EtOH, 0.05 NaC2H3O2

-----  
Ag+ ISE NaNO3 20°C 0.80M U T 1960TKa (18067)1101  
B4=13.35

B4=13.10(25 C), 12.85(30 C), 12.42(40 C), 12.03(50 C)

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C2H2 L Acetylene CAS 74-85-1 (703)

Ethyne; HCCH

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

-----  
Ag+ sol oth/un 25°C 0.0 U K1=1.63 1965TUa (18353)1102  
Kso(AgL(OH))=-19.29

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C2H2Br2 L CAS 540-12-5 (4212)

cis-1,2-Dibromoethylene; Br.CH:CH.Br

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

-----  
Ag+ sol KNO3 25°C 1.00M U K1=-0.17 19690Fa (18358)1103

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C2H2Br2 L CAS 590-12-5 (4213)

trans-1,2-Dibromoethylene; Br.CH:CBr.H

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

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Ag+ sol KNO3 25°C 1.00M U K1=-0.25 19690Fa (18359)1104

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C2H2Cl2 L CAS 156-59-2 (4210)

cis-1,2-Dichloroethylene; Cl.CH:CH.Cl

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

-----  
Ag+ sol KNO3 25°C 1.00M U K1=-0.60 19690Fa (18360)1105

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C2H2Cl2 L CAS 156-60-5 (4211)

trans-1,2-Dichloroethylene; Cl.CH:CCl.H

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

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Ag+ sol KNO3 25°C 1.00M U K1=-0.38 19690Fa (18361)1106

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C2H2I2 L CAS 590-27-2 (2963)

cis-Di-iodoethene, cis-Di-iodoethylene; ICH:ICH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	?	U		K1=1.25 B2=1.28	1951AKb (18362)	1107

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C2H2I2 L CAS 590-26-1 (2964)  
trans-Di-iodoethene, trans-Di-iodoethylene; ICH:CHI

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	?	U		K1=0.74 B2=1.10	1951AKb (18363)	1108

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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
Ag+	gl	NaClO4	25°C	1.0M	C		K1=<0.9	1983MAe (18658)	1109

Additional method: Ag ion selective electrode.

Ag+	sol	KN03	25°C	2.0M	U	M		1963FVa (18659)	1110
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B(Ag(en)L)=7.2

Ag+	dis	NaClO4	20°C	0.10M	U		K1= 2.0	1963STc (18660)	1111
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Ag+	EMF	oth/un	25°C	?	U		K1=2.41	1960CIa (18661)	1112
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C2H3N L Cyanomethane CAS 75-05-8 (1399)  
Acetonitrile; CH3.CN

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	nmr	oth/un	23°C	0.10M	U		K1=0.16 B2=0.71	1982FTa (19173)	1113

Ag+	con	oth/un	25°C	?	U		K1=1.85	1975JMa (19174)	1114
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Using laser Raman: K1=1.92, B2=0.10

Ag+	ISE	NaClO4	25°C	0.10M	U		K1=2.6 B2=4.4	1974SMa (19175)	1115
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Ag+	ISE	NaClO4	25°C	0.01M	U	I	K1=0.7 B2=0.8	1967MId (19176)	1116
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Medium:0.01(?) LiClO4.In MeOH: K1=1.1,B2=1.2,B3=1.2; Butan-2-ol: K1=1.0, B2=1.4,B3=1.3; acetone: K1=1.0,B2=1.5,B3=1.6; nitroethane:K1=1.1,B2=2.8

Ag+	kin	oth/un	40°C	0.01M	U		K1=0.89	1964YKb (19177)	1117
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Ag+	sol	oth/un	25°C	0.0	U		K1=0.75	1964YKb (19178)	1118
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Ag+	ISE	oth/un	20°C	0.01M	U		B2=1.23	1924PAa (19179)	1119
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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
Ag+	ISE	KNO3	25°C	0.50M	M		K(Ag+HL)=2.21 K(AgHL+HL)=2.29	1986BGa (19223)	1120

Ag+	gl	KNO3	25°C	0.50M	U		K(Ag+HL)=2.60 K(AgHL+HL)=1.78	1979BBa (19224)	1121
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C2H3O2Cl HL Chloroacetic CAS 79-11-8 (34)  
Chloroethanoic acid; ClCH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	->0	U		K1=0.64 B2=0.53	1952MTa (19342)	1122
Ag+	ISE	oth/un	30°C	->0	U		K1=0.58 B2=0.91	1949PHa (19343)	1123

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C2H4 L Ethylene CAS 74-85-1 (478)  
Ethene; H2C:CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	none	40°C	0.0	U T H		K1=1.34	1984DWa (19421)	1124

Method: Gas-Liquid Chromatography

Ag+	sol	none	30°C	0.00	U		K1=1.88	1970CBa (19422)	1125
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0.945 atm. C2H4

Ag+	kin	oth/un	25°C	1.0M	U M		K1=1.97 K(AgA+L)=1.76 K(AgA2+L=AgAL+A)=0.42 K(ALL(OH)+H)=8.7	1959BRa (19423)	1126
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Medium: CF3COONa. A=triethanolamine

Ag+	dis	oth/un	25°C	1.0M	U		K1=1.93 K(AgL+Ag)=-0.82	1952TLa (19424)	1127
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C2H4N2 L CAS 6011-14-9 (5501)  
(Cyanomethyl)amine; CN.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	oth/un	25°C	0.50M	U		K1=1.90 B2=3.21	1983HNa (19440)	1128

Medium: 0.5 M LHN03

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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
Ag+	EMF	none	25°C	0.0	C T H		K1=23.3	2002DZa (19451)	1129
Method: Ag electrode. Data for 5-45 C. DH(K1)=-45.8 kJ mol <sup>-1</sup> , DS(K1)=44.3 J K <sup>-1</sup> mol <sup>-1</sup> .									
*****									
C2H4N4		HL					CAS 584-13-4	(819)	
4-Amino-1,2,4-triazole; C2H2N3.NH2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KN03	25°C	0.50M	M			1986BGa (19485)	1130
							K(Ag+HL)=2.30		
							K(AgHL+HL)=2.13		
*****									
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
Ag+		sol non-aq	30°C	100%	C I			1986RKb (19780)	1131
							Kso(AgL)=-10.04		
Medium: dioxane. Data for 0-1.0 mole fraction Me2SO in dioxane.									
Ag+		con none	25°C	0.0	U I			1980ASa (19781)	1132
							Kout=1.23		
Data also in 10, 20, 30, 40 and 50% w/w MeOH/H2O									
Ag+	ISE	mixed	25°C	80%	U I		B2=5.2	1971Cma (19782)	1133
Medium: 80% DMSO, 0.1 M Et4NClO4. In 90% dioxan: B2=6.2, 95%, B2=6.8									
Ag+	ISE	non-aq	25°C	100%	U		B2=8.4	1970DMa (19783)	1134
Medium: DMSO, 0.1 M									
Ag+	ISE	non-aq	25°C	100%	U I		B2=10.9	1967AKa (19784)	1135
Medium : DMF. In dimethylacetamide, B2=10.6, In dimethylsulfoxide, B2=5.8									
Ag+	gl	NaClO4	25°C	3.0M	U		K1=0.36 B2=0.11	1964PCa (19785)	1136
							B3=-0.14		
Ag+	ISE	alc/w	25°C	30%	U I		K1=1.31 B2=1.72	1952MTa (19786)	1137
Medium: 30% EtOH. K1=0.73(0%),0.89(10%),1.10(20%); B2=0.64(0%),1.0(10%),1.25(20%)									
Ag+	ISE	mixed	25°C	30%	U I		K1=1.26 B2=1.75	1952MTa (19787)	1138
Medium: 30% acetone. K1=0.88(10%), 1.10(20%); B2=0.92(10%), 1.24(20%)									
Ag+	ISE	oth/un	25°C	0.0	U		K1=0.73 B2=0.64	1952MTa (19788)	1139

Ag+	sol	oth/un	25°C	0.0	U		B2=0.64	1951DMa (19789)	1140	
Ag+	ISE	NaCl04	20°C	0.0	U		K1=0.37 K3=0.65	B2=0.17	1946LEa (19790)	1141
Ag+	sol	oth/un	25°C	0.0	U		B2=0.64 B(Ag2L)=1.14	1942MAa (19791)	1142	
*****										
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
Ag+	gl	NaCl04	25°C	3.0M	U		K1=0.30	B2=0.36	1964PCa (20466)	1143
*****										
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
Ag+	gl	NaNO3	25°C	0.15M	C	TIH R	K1=3.45	B2=6.80	1991KSa (21315)	1144
IUPAC evaluation. DH(K1)=-19.2, DH(B2)=-48.1 kJ mol-1. 0 M: K1=3.8, B2=7.1										
Ag+	gl	NaCl04	25°C	3.00M	C	IH	K1=3.28	B2=6.96	1987IOc (21316)	1145
Medium: LiCl04										
Ag+	cal	diox/w	25°C	55%	U	H	K1=3.77	B2=7.76	1986ISa (21317)	1146
B(AgHL)=10.93										
DH(K1)=-30.3, DH(K2)=-39.1 kJ mol-1, DS(K1)=-29.0, DS(K2)=-55.0 J K-1 mol-1.										
Medium: 3M LiCl04										
Ag+	cal	NaCl04	25°C	3.00M	U	H			1986ISa (21318)	1147
DH(K1)=-25.7, DH(K2)=-36.5 kJ mol-1. DS(K1)=-23.0, DS(K2)=-52.0 J K-1 mol-1										
Ag+	gl	oth/un	30°C	0.10M	U	T	K1=3.98	B2=6.80	1981PUa (21319)	1148
Ag+	ISE	KNO3	25°C	0.10M	C	H	B2=6.82		1981SCa (21320)	1149
By calorimetry: DH(K1)=-51.7 kJ mol-1, DS=-44.7										
Ag+	ISE	NaCl04	25°C	3.00M	U	T	K1=3.28	B2=6.96	19800Za (21321)	1150
B(AgHL)=9.99										
K(Ag+L+H2O=Ag(OH)L+H)=-6.48										
Ag+	EMF	KNO3	25°C	0.10M	C		K1=4.2	B2= 6.80	1979BCb (21322)	1151
K(AgL+H)=8.1										
K(AgHL+H)=2.5										
K(AgL2+H)=8.8										
K(AgHL2+H)=8.0										

Method: Ag electrode.

Ag+ ISE KNO3 30°C 0.10M U T K1=3.74 B2=6.57 1977PUa (21323)1152

Ag+ ISE KNO3 25°C 0.10M C T K1=3.01 B2=6.22 1975IPb (21324)1153  
K(Ag+HL)=1.40

Glass electrode also used

Ag+ gl NaCl04 30°C 0.20M U T K1=3.54 B2=6.97 1975JBb (21325)1154

Ag+ gl KNO3 15°C 0.50M U T K1=3.24 B2=6.96 1970PTa (21326)1155  
0 C: K1=3.44, K2=3.99; 40 C: K1=3.03, K2=3.15

Ag+ gl KNO3 20°C 0.50M U T K1=3.22 B2=6.75 1968ALc (21327)1156  
Using: Ag-AgCl ISE electrode: B2=6.85

Ag+ gl KNO3 25°C 0.50M U T K1=5.15 B2=8.53 1968TPb (21328)1157

Ag+ ISE oth/un 25°C 0.60M U T K1=3.54 B2=6.82 1967AMb (21329)1158

Ag+ ISE oth/un 20°C 0.0 U T K1=4.00 B2=7.19 1962ALb (21330)1159  
Medium: 0 corr. By solubility: B2=7.26

Ag+ gl oth/un 25°C 0.01M U T H K1=3.43 B2=6.86 1959DGa (21331)1160  
K1=-7686.3/T+57.454-0.094725T  
K2=1506.7/T-0.763-0.002879T

DH(K1)=29.3 kJ mol<sup>-1</sup>(5 C), -14.2(15 C), -58.5(25 C), -104.5(35 C), -151.7(45 C),  
-200.6(55 C); DH(B2)=-34(25 C). DS(K1)=230 J K<sup>-1</sup> mol<sup>-1</sup>, DS(B2)=47

Ag+ gl oth/un 22°C 0.02M U K1=3.7 1952PEa (21332)1161  
Medium: AgNO3.

Ag+ gl oth/un 25°C ->0 U K1=3.51 B2=6.89 1951ALa (21333)1162

Ag+ gl oth/un 25°C 0.0 U K1=3.51 B2=6.89 1951MOa (21334)1163

Ag+ ISE oth/un 19°C 0.10M U K1=0.59 B2=7.24 1947DUa (21335)1164

Ag+ gl KNO3 20°C 0.50M U K1=3.7 B2=7.0 1945FLa (21336)1165

Ag+ sol oth/un 25°C ->0 U K1=4.28 1941KRa (21337)1166  
\*\*\*\*\*

C2H5NS HL Thioacetamide CAS 62-55-5 (3542)  
Thioacetic acid amide; CH3.CS.NH2

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

Ag+ EMF KNO3 25°C 1.0M U T HM K1=8.56 1993MGa (21832)1167  
B(AgL(thiourea))=11.25  
B(AgLI)=11.91  
B(AgLI2)=16.28  
B(AgLC1)=9.19



B(AgLBr)=9.93 etc. 0-35 C. DH(K1)=2 kJ mol<sup>-1</sup>, DS=171 J K<sup>-1</sup> mol<sup>-1</sup>

Data also for other mixed complexes

-----  
Ag+ ISE KNO3 0°C 1.00M U M K1=8.53 1985MMc (21833)1168  
mixed complexes: with thiourea: B(AgLA)=11.92; with chloride: B=9.08;  
with bromide B=9.82;  
-----

Ag+ EMF KNO3 5°C 1.0M C M K1=8.6 1984DBb (21834)1169  
B(Ag(tu)L)=10.77  
B(Ag(tu)2L)=13.16

tu is thiourea. Method: Ag/Ag+ electrode.

-----  
Ag+ EMF oth/un 25°C 0.60M U I K1=6.1 B2=13.7 1966PLa (21835)1170  
B3=14.7  
B4=13.4

Medium: 0.3-0.9 M HNO<sub>3</sub>. In 0.2-0.4 M H<sub>2</sub>SO<sub>4</sub>: K1=4.7, B2=13.7

\*\*\*\*\*  
C2H5N3OS L CAS 23228-74-2 (8602)  
Thioimidodicarbonic diamide;  
-----

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

-----  
Ag+ EMF none 25°C 0.0 C T H K1=13.3 2002DZa (21838)1171  
Method: Ag electrode. Data for 5-45 C. DH(K1)=90 kJ mol<sup>-1</sup>, DS(K1)=415  
J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*  
C2H5N3S2 L CAS 541-53-7 (8603)  
Dithiobiuret;  
-----

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

-----  
Ag+ EMF none 25°C 0.0 C T H K1=18.1 B2=29.80 2002DZa (21855)1172  
B3=39.1

Method: Ag electrode. Data for 5-45 C. DH(K1)=32.6 kJ mol<sup>-1</sup>, DS(K1)=238  
J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=9.5, DS(B2)=187; DH(B3)=-46.9, DS(B3)=151.

\*\*\*\*\*  
C2H6N2S L Methyl-Thiourea CAS 598-52-7 (1077)  
N-Methylthiourea; CH<sub>3</sub>.NH.CS.NH<sub>2</sub>  
-----

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

-----  
Ag+ EMF alc/w 25°C 100% M T H K1=8.81 B2=13.38 1990MMF (21998)1173  
B3=16.03

Medium: MeOH, 0-40 C. DH(K1)=-56 kJ mol<sup>-1</sup>, DS=+19 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=+86,  
DS=+544; DH(B3)=-112, DS=-123. Method: Ag electrode

\*\*\*\*\*  
C2H6OS HL CAS 60-24-2 (841)  
2-Mercaptoethanol; HS.CH<sub>2</sub>.CH<sub>2</sub>.OH  
-----

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

-----  
 Ag+ oth NaClO4 20°C 0.10M U K1=13.0 B2=17.90 1971TSa (22056)1174  
 K(Ag+AgL)=6  
 B(10Ag+9L)=176.4

Method: radiometry

\*\*\*\*\*

C2H6OS L DMSO CAS 67-68-5 (329)  
 Dimethylsulfoxide; (CH3)2.S0

-----  

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	ISE mixed	25°C		C			K1=-0.7		1990TMa (22086)	1175
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Medium 0.4 M LiNO3 in 25% mass DMSO/H2O

\*\*\*\*\*

C2H6O2S2 CAS 51554-68-8 (2123)  
 Ethylthiosulfonic acid; C2H5.S2O2H HL

-----  

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	ISE KNO3	20°C	1.00M	U			B2=9.01		1974GSb (22162)	1176
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B3=10.99

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C2H6S L CAS 75-18-3 (151)  
 Dimethyl sulfide; CH3.S.CH3

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

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Ag+	nmr alc/w	34°C	50%	C			K1=3.7		1980SSa (22185)	1177
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Also in D2O, K1=2.01

\*\*\*\*\*

C2H7N L Dimethylamine CAS 124-40-3 (802)  
 Dimethylamine; CH3.NH.CH3

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	KNO3	25°C	1.00M	U		K1=2.484	B2=5.263	1993GYa (22218)	1178
-----	----	------	------	-------	---	--	----------	----------	-----------------	------

Ag+	ISE alc/w	25°C	90%	U	I		B2=5.84		1963PLa (22219)	1179
-----	-----------	------	-----	---	---	--	---------	--	-----------------	------

Medium: 90% MeOH. B2=5.22(0%), 5.32(30%), 5.54(50%), 5.55(60%), 5.85(80%)

Ag+	ISE oth/un	25°C	->0	U			B2=5.37		1955FYb (22220)	1180
-----	------------	------	-----	---	--	--	---------	--	-----------------	------

Ag+	sol oth/un	15°C	0.10M	U			B2=5.30		1935BWa (22221)	1181
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At 17 C, by EMF, B2=5.45

Ag+	ISE oth/un	16°C	0.02M	U			B2=5.91		1928JOa (22222)	1182
-----	------------	------	-------	---	--	--	---------	--	-----------------	------

Ag+	ISE oth/un	20°C	0.01M	U			B2=5.60		1924PAa (22223)	1183
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C2H7N L Ethylamine CAS 75-04-7 (156)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO <sub>3</sub>	25°C	1.00M	U		K1=3.492 B(AgH-1L2)=-3.60	B2=7.493	1993GYa (22254)1184
Ag+	gl	KCl	25°C	0.10M	U		K1=3.44	B2=7.34	1980HAa (22255)1185
Ag+	gl	none	25°C	0.00	U		K1=3.58	B2=7.62	1971HTa (22256)1186
Ag+ Using Ag-AgCl electrode:	gl	KNO <sub>3</sub>	20°C	0.50M	U		K1=3.46	B2=7.57	1968ALc (22257)1187
		electrode: B2=7.51							
Ag+ Medium: Cl-. In	sol	oth/un	25°C	?	U	I	B2=7.39		1964SDb (22258)1188
		Br-, B2=7.48							
Ag+	ISE	oth/un	25°C	->0	U		B2=7.32		1955FYb (22259)1189
Ag+ K1=3.21(35 C),	gl	KNO <sub>3</sub>	25°C	0.50M	U T		K1=3.37	B2=7.30	1948BVa (22260)1190
		B2=3.77(35 C)							
Ag+	gl	KNO <sub>3</sub>	30°C	0.50M	U		K1=3.30	B2=7.14	1945CMA (22261)1191
Ag+ By EMF	sol	oth/un	15°C	<0.1	U		B2=7.72		1935BWa (22262)1192
		B2=7.67							
Ag+	ISE	oth/un	21°C	0.01M	U		B2=7.50		1928JOa (22263)1193
Ag+	sol	oth/un	25°C	0.10M	U		B2=7.33		1903BEa (22264)1194
Ag+ *****	sol	oth/un	25°C	0.30M	U		B2=7.24		1903EUa (22265)1195
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
Ag+	gl	non-aq	?	100%	U			K1=6.0 B2=8.2	1974UPb (22366)	1196
Medium: DMF, 0.2 M LiNO3. In DMSO: K1=4.7, B2=7.0										
Ag+	ISE	mixed	25°C	20%	U	I		K1=4.48 B2=6.53 B3=6.63	1973MPf (22367)	1197
Medium: 20% Acetone/H2O, 0.4 LiNO3. K1=5.04, B2=6.63, B3=7.20(40%), K1=5.13, B2=6.65, B3=7.29(60%), B2=6.85, B3=7.36(80%), B2=7.38, B3=7.58(90%) also X=95%										
Ag+	ISE	oth/un	25°C	0.20M	U	I		K1=4.30 B2=6.78	1973UPa (22368)	1198
Medium: LiNO3. In MeOH, K1=5.47, B2=7.62, B3=7.48. In EtOH, K1=5.47, B2=7.65, B3=7.56										

Ag+ ISE diox/w 25°C 20% U I K1=4.40 B2=6.65 1972MPc (22369)1199  
B3=7.11

Medium: 20% Dioxan, 0.4 LiNO<sub>3</sub>. Also K1=4.41, B2=6.93, B3=7.35(40%), B2=7.30,  
B3=7.60(60%), B2=7.45, B3=7.72(70%)

Ag+ ISE KNO<sub>3</sub> 25°C 0.50M U K1=2.92 B2=6.72 1972PEa (22370)1200

Ag+ sol KNO<sub>3</sub> 25°C 2.0M U B2=6.48 1970UPa (22371)1201

Ag+ gl KNO<sub>3</sub> 20°C 0.50M U K1=3.22 B2=6.79 1968ALc (22372)1202  
Using an Ag-AgC ISE: B2=6.83

Ag+ ISE alc/w 25°C 20% U I K1=4.60 B2=6.50 1965MPb (22373)1203  
B3=6.84

Medium: 20% EtOH, 0.4 LiNO<sub>3</sub>. 0%: K1=4.18, B2=6.45, B3=6.30; 40%: 5.15, 6.85, 7.11;  
60%: 5.5, 7.0, 7.5; 80%: 5.8, 7.23, 7.8; 100%: 6.0, 7.48, 8.36

Ag+ gl NaClO<sub>4</sub> 0°C 1.0M U T K1=3.38 B2=7.65 1964PCa (22374)1204  
30 C: K1=3.07, K2=3.56; 50 C: K1=2.86, K2=3.29

Ag+ ix KNO<sub>3</sub> 25°C 0.10M U B2=6.56 1962Cwa (22375)1205

Ag+ ISE oth/un 25°C 0.01M U B2=6.78 1961ALb (22376)1206

Ag+ gl oth/un 25°C .015M U K1=3.29 B2=6.82 1959DGa (22377)1207

Ag+ gl oth/un 10°C ->0 U T H K1=3.36 B2=7.28 1959LBb (22378)1208  
20 C: K1=3.29, K2=3.63; 30 C: K1=3.07, K2=3.57; 40 C: K1=2.98, K2=3.41.  
DH(K1)=-23 kJ mol<sup>-1</sup>, DS=-17 J K<sup>-1</sup> mol<sup>-1</sup>; DH(K2)=-27, DS=-21

Ag+ EMF oth/un 20°C 0.01M U B2=6.91 1958ASb (22379)1209

Ag+ gl KNO<sub>3</sub> 25°C 0.50M U K1=3.11 B2=6.68 1956BJb (22380)1210

Ag+ gl alc/w 25°C 50% U K1=3.41 B2=7.40 1955ANc (22381)1211  
Medium: 50 mol % EtOH

Ag+ gl KNO<sub>3</sub> 25°C 0.50M U K1=3.13 B2=6.68 1948BVa (22382)1212

Ag+ sol oth/un 16°C 0.20M U B2=7.09 1933TAa (22383)1213  
\*\*\*\*\*

C<sub>2</sub>H<sub>7</sub>NO<sub>3</sub>S HL Taurine CAS 107-35-7 (2214)  
2-Aminoethane sulfonic acid; H<sub>2</sub>N.CH<sub>2</sub>.CH<sub>2</sub>.SO<sub>3</sub>H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	NaClO <sub>4</sub>	25°C	1.0M	C		K1=3.53 B2= 6.48	1998BFb (22434)	1214

Method: Ag and glass electrodes

Ag+ gl KNO<sub>3</sub> 25°C 0.50M U K1=2.97 B2=6.15 1972PTa (22435)1215

-----  
Ag+ gl oth/un 25°C .014M U K1=3.19 B2=6.38 1959DGa (22436)1216  
\*\*\*\*\*

C2H7N04S HL CAS 926-39-6 (2972)  
2-Aminoethyl hydrogen sulfate; H2N.CH2.CH2.O.S03H  
-----

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

Ag+ gl oth/un 25°C .013M U K1=3.42 B2=6.90 1959DGa (22442)1217  
\*\*\*\*\*

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  
-----

Ag+ sp NaCl04 20°C 1.00M U M 1972GSg (22473)1218

K(Ag+NiL2)=6.70  
K(Ag+Ni3L4=AgNi2L4+Ni)=7.48  
\*\*\*\*\*

C2H70PS2 HL CAS 993-44-2 (4228)  
Dimethyldithiophosphonic acid; (CH3S)2PO.H  
-----

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

Ag+ ISE alc/w 25°C 90% U B2=16.00 1971TCa (22526)1219  
Medium: 90% EtOH, 0.3 M NaCl04  
\*\*\*\*\*

C2H8N04P 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  
-----

Ag+ gl oth/un 25°C .034M U I 1959DGa (22657)1220  
K1=3.89(?)  
K2=3.22(?)  
At I=0.026 M K1(?)=3.87, K2(?)=3.25  
\*\*\*\*\*

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  
-----

Ag+ ISE mixed 25°C 0.10M C I K1=6.65 B2=10.28 2002PRa (23034)1221  
Ag-electrode; Medium:0.1 M NaCl04 in 0.4 mol parts DMFA in H2O  
for 0.1 M NaCl04 in 100% DMFA K1=7.86; K2=4.38  
-----

Ag+ gl KNO3 25°C 1.0M C B2=7.67 1994GYb (23035)1222  
B(AgHL)=12.63  
B(AgH2L2)=25.93  
B(AgHL2)=16.59

$$B(\text{Ag2L2})=13.41$$

$$B(\text{Ag2HL2})=20.20$$

-----  
 Ag+ cal non-aq 25°C 100% U H 1989CDa (23036)1223  
 Medium: DMSO. DH(K1)=-63 kJ mol<sup>-1</sup>; DS=-109. DH(B2)=-85; DS=-103.  
 -----

Ag+ cal oth/un 25°C dil C H K1=4.68 B2= 7.69 19890Fa (23037)1224  
 B(Ag2L2)=13.19  
 Medium: NH4Cl/NH3 buffer, pH 10. DH(B2)=-52.59 kJ mol<sup>-1</sup>,  
 DH(B(Ag2L2))=-113.3.  
 -----

Ag+ ISE non-aq 25°C 100% C K1=5.34 B2=9.50 1988CBa (23038)1225  
 Medium: DMSO, 1.0 M Et4N.ClO4.  
 -----

Ag+ ISE mixed 25°C 90% U B2=8.36 1985BIa (23039)1226  
 Medium: 90% v/v DMSO in H2O  
 -----

Ag+ gl NaNO3 25°C 2.00M U K1=5.05 B2=11.12 1982SPc (23040)1227  
 B(AgHL)=12.52  
 K(Ag+HL)=2.26  
 B(AgHL2)=18.69  
 K(Ag+HL+L)=8.44  
 -----

Ag+ ISE KNO3 25°C 0.10M C H K1=5.32 B2=7.62 1981SCa (23041)1228  
 B3=14.52  
 By calorimetry: DH(K1)=-55.5 kJ mol<sup>-1</sup>, DS=-40.1  
 -----

Ag+ sol NaClO4 25°C 1.00M U T 1979BBb (23042)1229  
 K(2AgL=Ag2L2)=1.71  
 Also polymerized species (Ag)x(L)x with x greater than 2  
 -----

Ag+ vlt non-aq 25°C 100% U K1=3.30 1979SZa (23043)1230  
 Medium: DMSO, 0.1 M NaClO4  
 -----

Ag+ gl KNO3 25°C 1.00M C H K1=5.06 1978MSb (23044)1231  
 K(Ag+HL)=2.42  
 K(Ag+AgL)=1.20  
 B(2Ag+2L)=13.17  
 DH(K1)=-48.5; DH(K2)=-55.2; DH(2,2)=-107.8 kJ mol<sup>-1</sup>  
 -----

Ag+ gl KNO3 25°C 0.50M U H B2=7.64 1976VPb (23045)1232  
 B(AgHL)=2.34  
 B(AgH2L2)=4.90  
 B(AgHL2)=6.47  
 B(Ag2L2)=13.15  
 DH(AgHL)=-25.4 DS=-41, DH(Ag2H2L)=-5.08 DS=-77, DH(Ag2HL)=-56.9 DS=-66,  
 DH(Ag2L)=-52.5 DS=-30, DH(Ag2L2)=-97.1 DS=-74  
 -----

Ag+ ISE oth/un 25°C 3.00M U M K1=6.13 19730Ia (23046)1233  
 K(2Ag+L=Ag2L)=7.67

K(2Ag+2L=Ag2L2)=14.53

B(AgHL)=13.56

B(Ag(HL)2)=27.37

Medium: LiClO4. K(AgL+H2O=Ag(OH)L+H)=-4.59

-----  
Ag+ ISE non-aq 25°C 100% U K1=6.27 B2=9.54 1969PSd (23047)1234  
K(2Ag+L)=5.8

Medium: DMSO, 0.1 KClO4

-----  
Ag+ ISE oth/un 25°C 0.01M U B2=7.73 1961ALb (23048)1235  
B3=9.75

-----  
Ag+ gl NaNO3 20°C 0.10M U K1=4.70 B2=7.70 1952Sma (23049)1236  
K(Ag+HL)=2.35  
K(Ag+AgL)=1.76  
B(Ag2L2)=13.23

-----  
Ag+ ISE KNO3 25°C 1.0M U K1=6 B2=7.4 1950BJa (23050)1237

-----  
Ag+ ISE oth/un 18°C 0.02M U B2=7.70 1936Bwa (23051)1238  
\*\*\*\*\*  
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  
-----  
Ag+ gl KNO3 25°C 0.10M U K1=4.17 1980ZRc (23322)1239  
K(Ag+HL)=3.39  
K(Ag+H2L)=3.13

\*\*\*\*\*  
C3H2NCl L CAS 920-37-6 (3548)  
2-Chloroacrylonitrile; H2C:C(Cl)CN (1-Cyano-2-chloropropene)

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ dis oth/un 61°C 4.0M U K1=-0.55 1968SCb (23480)1240  
Medium: LiNO3

\*\*\*\*\*  
C3H3Cl L 3-Chloropropyne CAS 624-65-7 (4230)  
3-Chloropropyne, Propargyl chloride; HCC.CH2Cl

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ EMF NaNO3 25°C 1.00M U K1=0.10 1973STd (23491)1241  
\*\*\*\*\*  
C3H3N L Acrylonitrile CAS 107-13-1 (3545)  
Cyanoethene; H2C:CH.CN

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

Ag+ dis oth/un 61°C 4.0M U K1=-0.15 1968SCb (23492)1242  
Medium: LiNO3

\*\*\*\*\*

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
Ag+	gl	KNO3	25°C	0.50M	U			K1=1.21 B2=2.59	1979BBa (23495)	1243

Ag+	gl	KNO3	25°C	0.50M	U			K1=0.80 B2=1.21	1978KLa (23496)	1244
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C3H3NOS2 HL Rhodanine CAS 141-84-4 (3557)

2-Thioxo-4-thiazolidinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	dis	NaClO4	20°C	0.10M	U			K1=5.47 B2=9.68	1965NKb (23500)	1245

\*\*\*\*\*

C3H3NO2S HL CAS 2295-31-0 (388)

2,4-Thiazolidinedione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.50M	U			K1=3.5 B2=7.05	1979BBa (23513)	1246

\*\*\*\*\*

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
Ag+	gl	KNO3	25°C	0.50M	U			K1=1.44 B2=2.69	1979BBa (23517)	1247

Ag+	gl	KNO3	25°C	0.50M	U			K1=1.11 B2=2.71	1978KLa (23518)	1248
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C3H3NS L Thiazole CAS 288-47-1 (382)

Thiazole; cyclo(-S.CH:N.CH:CH-) C3H3NS

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.50M	M			K1=1.56 B2=3.73	1986BGa (23525)	1249

Ag+	gl	KNO3	25°C	0.50M	U			K1=1.95 B2=3.92	1979BBa (23526)	1250
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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
Ag+	ISE	KNO3	25°C	0.50M	M			K1=1.88 B2=4.17	1986BGa (23558)	1251



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-----
Ag+      gl  KNO3   25°C 0.50M U      K1=2.110  B2=4.235  1979BBa (23559)1252
-----
Ag+      gl  KNO3   25°C 0.50M U      K1=2.11   B2=4.24   1977BBb (23560)1253
-----
Ag+      ISE alc/w 25°C 20% C T H      K1=2.05   B2=4.44   1977PGb (23561)1254
-----
Ag+      EMF NaCl04 25°C 0.10M C      K1=2.05   B2= 4.37  1977PMa (23562)1255
Method: Ag electrode.
*****
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
-----
Ag+      gl  KNO3   25°C 0.10M C      R K1=2.93  B2=6.74   1997SJa (23782)1256
IUPAC evaluation. I=0.5 M: DH(K1)=-30.5 kJ mol-1, DH(K2)=-32.1
I=0: K1=2.92, B2=6.71; I=2.0: K1=3.34, B2=7.55
-----
Ag+      ISE KNO3   25°C 0.50M M      K1=3.31   B2=6.78   1986BGa (23783)1257
-----
Ag+      ISE KNO3   25°C 0.50M U      K1=3.31   B2=6.78   1985BGa (23784)1258
Simultaneous measurement of Ag+ in a concentration cell and of pH
With glass electrode alone, K1=3.33, B2=6.96
-----
Ag+      ISE alc/w 25°C 50% U      B2=7.22          1980BTb (23785)1259
-----
Ag+      gl  KNO3   25°C 0.50M U      K1=2.96   B2=6.95   1979BBa (23786)1260
-----
Ag+      ISE NaCl04 25°C 3.00M C      K1=3.336  B2=7.554  1979GSb (23787)1261
K(Ag+L=AgL(OH)+H)=-4.78
-----
Ag+      ISE R4N.X 25°C 0.50M U      K1=4.0     B2=6.88   1971BLb (23788)1262
Medium: NH4NO3
-----
Ag+      ISE KNO3   25°C 0.50M U      K1=2.70   B2=6.88   1970BLa (23789)1263
-----
Ag+      gl  KNO3   25°C 1.00M U      K1=3.08   B2=6.95   1969NNa (23790)1264
-----
Ag+      gl  KNO3   50°C 0.10M U T H      K1=2.81   B2=6.05   1966DGb (23791)1265
0 C:K1=3.52,K2=4.36; 10 C:3.38, 4.15; 20 C:3.24, 3.89; 30 C:3.10, 3.64;
50 C:2.81,3.24. At 20 C:DH(K1)=-23 kJ mol-1,DS=-17; DH(K2)=-43,DS=-73
-----
Ag+      gl  KNO3   25°C 1.0M U      K1=3.05   B2=6.88   1964BWa (23792)1266
-----
Ag+      gl  KCl    25°C .058M U T      K1=3.78   B2=7.04   1961SMa (23793)1267
0 C: K1=4.26; 45 C: K1=3.46, B2=7.94
-----
Ag+      gl  KNO3   25°C 1.0M U      K1=3.11   B2=6.84   1960GGa (23794)1268
*****

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C3H4N2O5 L Thiohydantoin CAS 503-87-7 (387)  
Imidazolidine-2-thioxo-4-one, 2-Thiohydantoin;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.50M	U			K1=4.26 B2=6.87	1979BBa (23935)	1269

\*\*\*\*\*

C3H4N2O2 HL Hydantoin CAS 461-72-3 (389)  
2,4-Imidazolidinedione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.50M	U			K1=4.42 B2=9.05	1979BBa (23943)	1270
Ag+	gl	KNO3	25°C	0.50M	U	IH		K1=4.42 B2= 9.05	1979BEc (23944)	1271

By calorimetry: DH(K1)=-24.4 kJ mol<sup>-1</sup>, DS(K1)=2.7 J K<sup>-1</sup> mol<sup>-1</sup>;  
DH(B2)=-12.65, DS(B2)=-4.2. In 0.10 M KNO3, K1=4.29, B2=9.20

Ag+	ISE	KNO3	25°C	0.10M	U			K1=4.29 B2=9.20	1965COb (23945)	1272
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C3H4N2S L CAS 95-50-4 (821)  
2-Aminothiazole; C3H2NS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.50M	M			K1=2.69 B2=5.35	1986BGa (23958)	1273

\*\*\*\*\*

C3H4O L 2-Propyn-1-ol CAS 107-19-7 (4231)  
2-Propyn-1-ol, Propargyl alcohol; HCC.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	NaNO3	25°C	1.00M	U			K1=0.64	1973STd (23976)	1274

\*\*\*\*\*

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
Ag+	EMF	NaNO3	25°C	1.00M	U			K1=0.51	1973STd (24636)	1275

\*\*\*\*\*

C3H6 L Propylene CAS 115-07-1 (702)  
Propene; CH3.CH:CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	dis	none	40°C	0.0	U	T H		K1=0.95	1984DWa (24752)	1276
Ag+	ISE	none	25°C	0.00	U			K1=1.77	1971PTb (24753)	1277

Medium: 0.1 KNO3. 20 C: K1=1.00; 40 C: K1=0.53; 60 C: K1=0.26; 80 C: K1=-0.1

-----  
Ag+ dis oth/un 25°C 1.0M U K1=1.94 1952TLa (24754)1278  
K(AgL+Ag)=-0.96

\*\*\*\*\*  
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  
-----

Ag+ EMF none 25°C 0.0 C T H K1=13.2 2002DZa (24763)1279  
Method: Ag electrode. Data for 5-45 C. DH(K1)=127 kJ mol-1, DS(K1)=540  
J K-1 mol-1.  
-----

Ag+ ISE mixed 25°C 82% U K1=7.25 B2=9.60 1979TBa (24764)1280  
Medium: 82% formamide  
-----

Ag+ ISE mixed 25°C 0.20M U I 1978BMb (24765)1281  
B3=11.77

Medium: 40 mol/l H2O in H2O/Dimethylformamide mixed solvent

\*\*\*\*\*  
C3H6N2OS L (6138)  
4,5-Dihydroxyimidazolidine-2-thione;  
-----

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

Ag+ ISE mixed 25°C 82% U K1=4.87 B2=8.45 1979TBd (24816)1282  
B3=12.10

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

\*\*\*\*\*  
C3H6N2S L CAS 96-45-7 (386)  
2-Imidazolidinethione; C3H6N2(:S)  
-----

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

Ag+ gl KNO3 25°C 0.50M U K1=5.97 B2=10.2 1979BBa (24831)1283  
B3=12.3  
-----

Ag+ ISE diox/w 28°C 80% U 1964KKa (24832)1284  
K(Ag+3HL)=11.5

Medium: 80% dioxan, 2 M NH4NO3

\*\*\*\*\*  
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  
-----

Ag+ ISE NaClO4 25°C 1.0M U TIH K1=1.253 B2=1.05 1977HSa (24840)1285  
By temp coeff., DH1=-18.6 kJ mol-1, DS1=-38 J K-1 mol-1, also in MeOH etc.  
-----

Ag+ EMF NaNO3 25°C 1.00M U K1=0.97 1973STd (24841)1286

-----  
Ag+ ISE NaCl04 25°C 2.0M U K1=1.360 B2=1.12 1967HV a (24842)1287  
-----

Ag+ sol KNO3 25°C 0.10M U K1=1.15 1949KAb (24843)1288  
-----

Ag+ dis KNO3 25°C 1.0M U K1=1.08 B2=1.56 1938WLa (24844)1289  
\*\*\*\*\*

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  
-----

Ag+ dis KNO3 25°C 1.0M U K1=-0.85 1938WLa (24854)1290  
\*\*\*\*\*

C3H6O2S HL CAS 2444-37-3 (1074)  
(Methylthio)ethanoic acid; CH3.S.CH2.CO0H  
-----

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

Ag+ ISE oth/un 25°C 0.10M U K1=3.90 B2=7.36 1968PSb (25089)1291  
K(Ag+HL)=3.16

Acetate buffer. For K(Ag+HL) I=0.2 M  
\*\*\*\*\*

C3H6O2S H2L CAS 107-96-0 (437)  
3-Mercaptopropanoic acid; HS.CH2.CH2.CO0H  
-----

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

Ag+ ISE KNO3 20°C 0.10M C K1=12.0 B2=14.00 1999AKa (25198)1292  
Method: Ag2S electrode. K(H+L)=10.5.  
\*\*\*\*\*

C3H7N L Allylamine CAS 107-11-9 (2973)  
Allylamine; H2C:CH.CH2.NH2  
-----

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

Ag+ ISE NaCl04 25°C 2.0M U K1=0.114 1967HV a (25635)1293  
-----

Ag+ sol oth/un 16°C 0.01M U B2=7.17 1933TAa (25636)1294  
\*\*\*\*\*

C3H7N L (160)  
Amino-cyclopropane; C3H5.NH2  
-----

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

Ag+ gl KCl 25°C 0.10M U K1=3.10 B2=6.43 1980HAa (25640)1295  
\*\*\*\*\*

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
Ag+	EMF	non-aq	?	100%	U		K1=1.7 B3=3.0 B4=2.42	1971Lub	(25650)1296

Medium: 0.1-1.0, HCON(CH<sub>3</sub>)<sub>2</sub>, in nitroethane. Data also in sulfolane, acetone, 2-butanol and methanol

\*\*\*\*\*

C<sub>3</sub>H<sub>7</sub>NO<sub>2</sub> HL Alanine CAS 56-41-7 (86)  
2-Aminopropanoic acid; H<sub>2</sub>N.CH(CH<sub>3</sub>).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	oth/un	30°C	0.10M	U		K1=3.85 B2=6.60	1981PUa	(26053)1297
Ag+	EMF	KNO <sub>3</sub>	25°C	0.10M	C T H		K1=4.3 K(AgL+H)=8.1 K(AgHL+H)=2.5	1981SBe	(26054)1298

Method: Ag/Ag+ electrode. Data for 25-45C. DH(K1)=41.3 kJ mol<sup>-1</sup>.

Ag+	gl	NaCl04	30°C	0.20M	U	T	K1=3.85 B2=7.51	1975JBb	(26055)1299
Ag+	ISE	oth/un	25°C	0.60M	U	T	K1=3.60 B2=7.06	1967AMb	(26056)1300
Ag+	gl	oth/un	25°C	->0	U		K1=3.64 B2=7.18	1951MOa	(26057)1301
Ag+	sol	oth/un	25°C	->0	U		K1=4.86	1941KRb	(26058)1302

\*\*\*\*\*

C<sub>3</sub>H<sub>7</sub>NO<sub>2</sub> HL B-Alanine CAS 107-95-9 (575)  
3-Aminopropanoic acid; H<sub>2</sub>N.CH<sub>2</sub>.CH<sub>2</sub>.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	NaCl04	25°C	3.00M	C	IH	K1=3.58 B2=7.46	1987IOc	(26419)1303
Medium: LiCl04									
Ag+	gl	NaCl04	25°C	3.00M	U	T	K1=3.58 B2=7.46 B(AgHL)=10.88 K(Ag+L+H <sub>2</sub> O=Ag(OH)L+H)=-6.12	19800Za	(26420)1304
Ag+	gl	NaCl04	30°C	0.20M	U		K1=4.17	1975JBb	(26421)1305
Ag+	gl	KNO <sub>3</sub>	15°C	0.50M	U T		K1=3.47 B2=7.41	1970PTa	(26422)1306
K1(0 C)=3.72, B2(0 C)=7.90; K1(40 C)=3.19, B2(40 C)=6.69									
Ag+	gl	KNO <sub>3</sub>	20°C	0.50M	U	T	K1=3.44 B2=7.25	1968ALc	(26423)1307
Using Ag/AgCl ISE: B2=7.32									
Ag+	gl	KNO <sub>3</sub>	25°C	0.50M	U	T	K1=3.33 B2=7.12	1968TPa	(26424)1308

Ag+ ISE oth/un 25°C 0.60M U T K1=3.76 B2=7.21 1967AMb (26425)1309  
\*\*\*\*\*

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  
-----

Ag+ gl oth/un 25°C .016M U K1=3.04 B2=5.88 1959DGa (26593)1310  
\*\*\*\*\*

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

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

Ag+ ISE KNO3 20°C 0.10M C K1=11.9 B2=15.20 1999AKa (26731)1311  
Method: Ag2S electrode. K(H+L)=7.8.

-----  
Ag+ ISE NaClO4 25°C 0.50M U 1986KPa (26732)1312  
Kso(AgL)=-8.40

-----  
Ag+ ISE NaNO3 25°C 1.0M U 1976ZNb (26733)1313  
K(Ag+HL)=14.01

Ag-electrode

\*\*\*\*\*

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

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

Ag+ EMF KNO3 25°C 0.10M C T H K1=4.1 1981SBe (27065)1314  
K(AgL+H)=7.4  
K(AgHL+H)=2.5

Method: Ag/Ag+ electrode. Data for 25-45C. DH(K1)=44.3 kJ mol<sup>-1</sup>.

-----  
Ag+ ISE oth/un 25°C 0.60M U K1=3.40 B2=6.67 1967AMb (27066)1315  
\*\*\*\*\*

C3H7NS L CAS 758-16-7 (476)  
N,N-Dimethylthioformamide; HCS.N(CH3)2

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

Ag+ ISE none 25°C 0.0 U K1=6.8 B2=10.2 1976CWc (27255)1316  
B3=11.9  
B4=13.0

-----  
Ag+ ISE non-aq 25°C 100% U K1=3.7 B2=6.7 1976CWc (27256)1317  
B3=8.4  
B4=9.2

Medium: MeCN  
-----

Ag+ ISE non-aq 25°C 100% U B2=13.9 1976CWc (27257)1318  
 B3=16.0  
 B4=16.9

Medium: propylene carbonate

\*\*\*\*\*

C3H7NS L Thiazolidine CAS 504-78-9 (385)  
 Tetrahydrothiazole; cyclo(-S-CH2-NH-CH2-CH2-) C3H7NS

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

Ag+ gl KNO3 25°C 0.50M U K1=8.84 B2=12.08 1979BBa (27260)1319

\*\*\*\*\*

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  
 -----

Ag+ EMF alc/w 25°C 100% M T H K1=8.77 B2=12.52 1990MMf (27623)1320  
 B3=15.24

Medium: MeOH, 0-40 C. DH(K1)=-37 kJ mol<sup>-1</sup>, DS=+44 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-60,  
 DS=+36; DH(B3)=-110, DS=-77. Method: Ag electrode

\*\*\*\*\*

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  
 -----

Ag+ sp oth/un ? ? U 1971EPd (27774)1321  
 B(Ag2L)=35.8

Ag+ EMF KNO3 ? 1.00M U 1969SOa (27775)1322  
 B(Ag2L2)=25.80

Medium:HNO3

\*\*\*\*\*

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  
 -----

Ag+ gl alc/w 20°C 25% U T H K1=7.05 1978SKf (27805)1323  
 DH=-39.54 kJ mol<sup>-1</sup>. Data also available when T=10 and 30. Alternative  
 methods: Conductivity and amperometric techniques.

Ag+ con alc/w 20°C 25% C TIH 1978SKj (27806)1324  
 Kso(AgL)=-7.05

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 n-Propylamine CAS 107-10-8 (2356)  
 1-Aminopropane; H2N.CH2.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	1.00M	U		K1=3.463 B2=7.435 B(AgH-1L2)=-4.30	1993GYa (27820)	1325
Ag+	gl	none	25°C	0.00	U		K1=3.57 B2=7.70	1971HTa (27821)	1326
Ag+	ISE	R4N.X	25°C	2.00M	U		K1=3.40 B2=7.10	1969PMc (27822)	1327
Medium: NH4NO3									
Ag+	EMF	KNO3	20°C	0.50M	U		K1=3.47 B2=7.54	1968ALc (27823)	1328
Method: quinhydrone electrode. Using Ag/AgCl ISE: B2=7.48									
Ag+	sol	oth/un	16°C	0.01M	U		B2=7.68	1933TAa (27824)	1329
*****									
C3H9N		L					iso-Propylamine CAS 75-31-0 (157)		
2-Propylamine; CH3.CH(CH3).NH2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KCl	25°C	0.10M	U		K1=3.64 B2=7.77	1980HAa (27840)	1330
Ag+	oth	non-aq	?	100%	U		B2=10.5	1965MMA (27841)	1331
Method: coulometric titration. Medium: acetone, 0.1 M NaCl04									
*****									
C3H9N		L					(6677)		
Methylethylamine; CH3.CH2.NH.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	1.00M	U		K1=2.789 B2=5.828	1993GYa (27849)	1332
*****									
C3H9N		L					Trimethylamine CAS 75-50-3 (803)		
Trimethylamine; (CH3)3.N									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	1.00M	U		K1=1.701	1993GYa (27857)	1333
Ag+	sol	oth/un	15°C	0.10M	U		B2=3.11	1935BWA (27858)	1334
*****									
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
Ag+	ISE	KNO3	25°C	0.50M	U		K1=3.03 B2=6.77	1972PEa (27873)	1335
Ag+	gl	oth/un	20°C	0.0	U		K1=3.23 B2=6.78	1964AKb (27874)	1336



Medium: 0 corr. By solubility: B2=6.78

\*\*\*\*\*

C3H9NO L CAS 109-85-3 (1575)

2-Methoxyethylamine; CH3O.CH2.CH2.NH2

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl NaClO4 30°C 1.0M U TI K1=3.15 B2=6.81 1964PCa (27900)1337  
50 C: K1=2.95, K2=8.27. At I=0, 30 C: B2=6.76  
-----

Ag+ gl none 10°C 0.0 U T H K1=3.44 B2=7.16 1959LBb (27901)1338  
DH(K1)=-23 kJ mol<sup>-1</sup>, DS=-8; DH(K2)=-22, DS=-4. 20 C: K1=3.16, K2=3.81;  
30 C: K1=3.18, K2=3.37; 40 C: K1=2.99, K2=3.43  
-----

Ag+ gl KNO3 25°C 0.50M U K1=2.95 B2=6.34 1948BVa (27902)1339  
\*\*\*\*\*

C3H9NO L CAS 156-87-6 (906)

3-Aminopropan-1-ol; HO.CH2.CH2.CH2.NH2

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl KNO3 20°C 0.50M U K1=3.25 B2=7.04 1968ALc (27915)1340  
By Ag/AgCl ISE: B2=7.04  
-----

\*\*\*\*\*  
C3H9NO2 L CAS 616-30-8 (4237)

3-Aminopropan-1,2-diol; H2N.CH2.CH(OH).CH2(OH)

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE KNO3 25°C 0.50M U K1=3.00 B2=6.35 1972PEa (27922)1341  
\*\*\*\*\*

C3H9NO3S HL CAS 3687-18-1 (4242)

3-Aminopropanesulfonic acid; H2N.CH2.CH2.CH2.SO3H

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl KNO3 25°C 0.50M U K1=3.17 B2=6.75 1972PTa (27924)1342  
\*\*\*\*\*

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  
-----  
Ag+ gl KNO3 25°C 0.50M U K1=4.88 B2=9.29 1977TGa (27940)1343  
B(2Ag+L)=6.86  
B(2Ag+2L)=13.01  
B(Ag+HL)=2.64  
B(Ag+HL+L)=7.56  
-----

B(Ag+2HL)=4.06  
-----

Ag+ cal KNO3 25°C 0.50M C H 1977TGc (27941)1344  
DH(Ag+HL)=-27.3 kJ mol<sup>-1</sup>, DH(Ag+2HL)=-55.6, DH(Ag+HL+L)=-73.6,  
DH(B2)=-82.0, DH(2Ag+2L)=-123, DH(2Ag+L)=-17.58.

-----  
Ag+ gl KNO3 30°C 1.0M U K1=4.17 B2=6.88 1951G0a (27942)1345  
\*\*\*\*\*

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  
-----

Ag+ ISE alc/w 25°C 10% C 1990GVa (27950)1346

B(6,3)=61.60  
B(6,4)=77.83  
B(8,6)=114.58  
B(7,6)=109.84

B(10,9)=163.76, B(12,12)=211.2, B(5,6)=96.58, B(5,7)=102.6, B(4,6)=83.59,  
B(2,4)=44.84. In 10% methanol/H2O, 0.10 M NaNO3. B(p,q): pAg+qHL=(Ag)p(HL)q  
\*\*\*\*\*

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  
-----

Ag+ gl KNO3 25°C 1.0M C B2=7.92 1994GYb (28155)1347

B(AgHL)=12.55  
B(AgH2L2)=25.10  
B(AgHL2)=16.87  
B(Ag2L2)=13.29

B(Ag2HL2)=20.07

-----  
Ag+ ISE NaClO4 25°C 3.00M U K1=5.52 19730Ia (28156)1348

B(Ag2L)=7.60  
B(AgHL)=12.72  
B(AgH2L2)=25.84  
B(Ag2L2)=13.47

Medium: LiClO4. K(AgL+H2O=AgOHL+H)=-4.17

-----  
Ag+ ISE KNO3 25°C 1.00M U K1=6.20 B2=7.60 1968LAb (28157)1349

K(Ag+HL)=3.20  
K(AgHL+HL)=2.76

\*\*\*\*\*

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  
-----

Ag+ EMF non-aq 25°C 100% C H K1=5.9 2002CNa (28271)1350

B(Ag2L)=8.06  
B(Ag2L2)=14.4



B(Ag2L2)=12.05

\*\*\*\*\*

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  
-----

Ag+ gl oth/un 10°C 0.0 U T H K1=5.96 1958BBc (28381)1360  
DH(K1)=-55.2 kJ mol<sup>-1</sup>, DS=-79. K1=5.64(20 C), 5.31(30 C), 4.97(40 C)

-----  
Ag+ gl KNO3 30°C 1.0M U K1=5.80 1955GFa (28382)1361

\*\*\*\*\*

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  
-----

Ag+ gl NaNO3 20°C 0.10M U K1=5.65 1950PSa (28482)1362  
K(Ag+HL)=3.4  
K(Ag+AgL)=1.2

\*\*\*\*\*

C4H3N2Cl L Chloropyrazine CAS 14508-49-7 (2530)  
2-Chloro-pyrazine, 2-Chloro-1,4-diazine; C4H3N2.Cl

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

Ag+ gl KNO3 25°C 0.10M U H K1=0.96 B2=1.53 1974HEa (28676)1363  
DH(K1)=-15.9 and DH(B2)=-32.13 kJ mol<sup>-1</sup>.

\*\*\*\*\*

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  
-----

Ag+ ISE KNO3 ? 0.10M U B2=8.18 1970GKd (28690)1364

\*\*\*\*\*

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  
-----

Ag+ ISE KNO3 25°C 0.50M U K1=1.48 B2=2.70 1986KLa (28768)1365

-----  
Ag+ ISE KNO3 25°C 0.10M U K1=1.48 B2=2.82 1973BEb (28769)1366

\*\*\*\*\*

C4H4N2 L Pyrimidine CAS 289-95-2 (4247)  
1,3-Diazine, pyrimidine;

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

Ag+ ISE KNO3 25°C 0.10M U K1=1.61 B2=2.98 1973BEb (28775)1367  
\*\*\*\*\*

C4H4N2 L Pyrazine CAS 290-37-9 (620)  
1,4-Diazine, Pyrazine;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE KNO3 25°C 0.50M U K1=1.39 B2=2.52 1986KLa (28786)1368  
-----

Ag+ ISE KNO3 25°C 0.10M U K1=1.38 B2=2.41 1973BEb (28787)1369  
-----

Ag+ sol mixed 30°C 1% U K1=1.50 B2=2.12 1962STa (28788)1370  
Medium: 1% Pyrazine  
\*\*\*\*\*

C4H4N2 L Succinonitrile CAS 110-61-2 (2987)  
Succinonitrile; NC.CH2.CH2.CN

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE oth/un 20°C ? U K1=1.0 1924PAa (28799)1371  
\*\*\*\*\*

C4H4N2O5 HL 2-Thiouracil CAS 141-90-2 (4278)  
4-Hydroxy-2-mercaptopyrimidine; HO.C4H2N2.SH

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ EMF none 25°C 0.0 C T H K1=13.1 B2=22.30 2002DZa (28803)1372  
B3=31.5

Method: Ag electrode. Data for 5-45 C. DH(K1)=-80.3 kJ mol<sup>-1</sup>, DS(K1)=-189  
J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-93.5, DS(B2)=-145; DH(B3)=-38.2, DS(B3)=122.

\*\*\*\*\*

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  
-----  
Ag+ ISE KNO3 25°C 1.00M U K1=8.18 B2=11.67 1975DWa (28849)1373  
B(Ag+HL)=6.00  
B(Ag+2HL)=8.78

\*\*\*\*\*

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  
-----  
Ag+ ISE NaCl04 25°C 0.50M U 1986KPa (28882)1374  
Kso(AgL)=-10.91  
Kso(AgL2)=-22.82

\*\*\*\*\*

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
Ag+	gl	KNO3	30°C	0.50M	U		K1=5.63	1989WIa (28931)	1375
*****									
C4H5N		L					Crotononitrile	CAS 4786-20-3	(3561)
2-Butenenitrile; CH3.CH:CH.CN									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	oth/un	61°C	4.0M	U		K1=-0.03	1968SCb (29284)	1376
Medium: LiNO3. Method: gas chromatography									
*****									
C4H5N		L					2-Cyanopropene	CAS 126-98-7	(3560)
Methacrylonitrile; H2C:C(CH3)CN									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	oth/un	61°C	4.0M	U		K1=-0.11	1968SCb (29285)	1377
Medium: LiNO3. Method: gas chromatography									
*****									
C4H5NO		L					Methylisoxazole	CAS 5765-44-6	(2045)
5-Methylisoxazole; C3H2NO.CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	KNO3	25°C	0.50M	U		K1=0.99 B2=1.76	1977LKa (29289)	1378
Ag/Ag+ concentration cell									
*****									
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
Ag+	gl	KNO3	25°C	0.50M	U		K1=4.36 B2=9.64	1979BBa (29306)	1379
*****									
Ag+	gl	KNO3	25°C	0.50M	U	H	K1=4.36 B2= 9.64	1979BEc (29307)	1380
By calorimetry: DH(K1)=-23.4 kJ mol <sup>-1</sup> , DS(K1)=5.0 J K <sup>-1</sup> mol <sup>-1</sup> .									
DH(B2)=-50.63, DS(B2)=14.7.									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.10M	U		K1=4.45 B2=9.54	1965COa (29308)	1381
*****									
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
Ag+	ISE	KNO3	25°C	0.50M	M		K1=1.00 B2=4.27	1986BGa (29324)	1382
*****									

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
Ag+	ISE	KNO3	25°C	0.50M	U			K1=2.27 B2=5.08	1986KLa (29342)	1383

\*\*\*\*\*

C4H5N3 L Aminopyrazine CAS 5049-61-6 (2529)  
2-Amino-1,4-diazine; C4H3N2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	U	H		K1=1.81 B2=3.50	1974HEa (29346)	1384

\*\*\*\*\*

C4H6 L 1,3-Butadiene CAS 106-99-0 (4245)  
1,3-Butadiene; CH2:CH.CH:CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	KNO3	20°C	0.10M	U	I		K1=1.67	1971PTc (29439)	1385

K1(I=0.5)=1.67, K1(1.0)=1.66, K1(I=2.5)=1.67  
I=0.1 KClO4, K1=1.68; I=0.1 LiNO3, K1=1.67;; I=0.1 Zn(NO3)2), K1=1.67  
\*\*\*\*\*

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
Ag+	ISE	KNO3	25°C	0.50M	M			K1=3.54 B2=7.14	1986BGa (29469)	1386
Ag+	EMF	KNO3	25°C	0.50M	U			K1=3.54 B2=7.14	1985BGa (29470)	1387

Simultaneous measurement of Ag+ in a concentration cell and of pH  
Using glass electrode alone K1=3.50, B2=7.25

Ag+	gl	KNO3	25°C	1.00M	U			K1=3.11 B2=6.98	1969NNA (29471)	1388
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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
Ag+	ISE	KNO3	25°C	0.50M	M			K1=2.33 B2=4.94	1986BGa (29500)	1389
Ag+	ISE	alc/w	25°C	20%	C T H			K1=2.41 B2=4.80	1977PGb (29501)	1390

\*\*\*\*\*

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

Ag+ ISE KNO3 25°C 0.50M M K1=2.95 B2=6.33 1986BGa (29555)1391

Ag+ ISE KNO3 25°C 0.50M U K1=2.95 B2=6.33 1985BGa (29556)1392

Simultaneous measurement of Ag+ in a concentration cell and of pH

Using glass electrode alone, K1=2.91, B2=6.56

Ag+ gl KNO3 25°C 1.0M U T K1=3.00 B2=6.89 1964BWa (29557)1393  
K1=2.98(25.6 C),2.94(27 C); K2=3.87(25.6 C),3.82(27 C)

\*\*\*\*\*

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

Ag+ ISE KNO3 25°C 0.50M U K1=1.60 B2=2.84 1977LGa (29613)1394

Ag+/Ag concentration cell

\*\*\*\*\*

C4H6N2O2 HL CAS 616-04-6 (3583)

1-Methylimidazolidine-2,4-dione (1-Methylhydantoin)

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

Ag+ ISE KNO3 25°C 0.10M U K1=4.37 B2=9.34 1965COa (29622)1395

\*\*\*\*\*

C4H6N2O2 HL CAS 616-03-5 (3584)

5-Methylimidazolidine-2,4-dione (5-Methylhydantoin)

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

Ag+ ISE KNO3 25°C 0.10M U K1=4.34 B2=9.27 1965COb (29624)1396

\*\*\*\*\*

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

Ag+ gl KNO3 25°C 0.50M U K1=1.79 B2=3.25 1985GLa (29641)1397

\*\*\*\*\*

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

Ag+ EMF KNO3 25°C 0.50M C K1=7.70 B2= 9.40 1977LWa (29658)1398

B3=12.48

Method: Ag electrode.

\*\*\*\*\*

C4H6N4 L CAS 627-40-7 (4252)

1,5-Trimethylenetetrazole;



Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.40M	U	I	B2=3.01	1969DPc (29667)	1399
B2(I=0.4)=2.98									
*****									
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
Ag+	EMF	NaNO3	25°C	1.00M	U		K1=0.39	1973STd (29691)	1400
*****									
C4H6O		L					Crotonaldehyde CAS 4170-30-3	(2988)	
Crotonaldehyde; CH3.CH:CH.CH0									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	KNO3	25°C	1.0M	U		K1=-0.72	1938WLa (29693)	1401
*****									
C4H6O		L					But-1-en-3-one CAS 78-94-4	(3562)	
Methyl vinyl ketone, but-1-en-3-one; H2C:CH.CO.CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	KNO3	25°C	1.0M	U		K1=-0.4	1968FKa (29694)	1402
*****									
C4H6O2		L					Vinyl acetate CAS 108-05-4	(3564)	
Acetic acid vinyl ester; CH3.CO.OCH:CH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	KNO3	25°C	1.0M	U		K1=0.01 B2=-0.39	1968FKa (29707)	1403
*****									
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
Ag+	dis	KNO3	25°C	1.0M	U		K1=-1.04	1938WLa (29710)	1404
*****									
C4H6O2		L					Me methacrylate CAS 96-33-3	(815)	
Methyl propenoate; CH2:CH.CO2.CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	KNO3	25°C	1.0M	U		K1=-0.4 B2=-1.00	1968FKa (29729)	1405
*****									
C4H6O4S		H2L					Thiodiacetic CAS 123-93-3	(140)	
2,2'-Thiodiglycolic acid, Thiodiethanoic acid; HOOCH2.S.CH2.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	NaNO3	20°C	1.0M	U		K1=2.7 B2=6.3	1944LAa (30200)	1406
*****									
C4H6O4S		H3L					Thiomalic acid CAS 70-49-5 (109)		
2-Mercaptosuccinic acid, 2-Sulfanyl-1,4-butanedioic acid; H00C.CH(SH).CH2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	NaClO4	25°C	0.50M	U		K1=4.12 K(AgL+H)=3.15	1981NAa (30304)	1407
Ag+	gl	KNO3	35°C	0.10M	U T H		K1=7.17	1968SGj (30305)	1408
K1=6.89(25 C), 6.95(30 C). At 30 C: DH(K1)=-31.4 kJ mol-1(?), DS=29 J K-1 m-1									
Ag+	gl	KNO3	25°C	0.10M	U		K1=7.85	1965LMa (30306)	1409
*****									
C4H6O4Se		H2L					CAS 6228-62-2 (984)		
Selenodiethanoic acid; H00C.CH2.Se.CH2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	C		K1=4.46 B2=7.02	1975LPa (30445)	1410
K(Ag+HL)=3.42 K(Ag+H2L)=3.02									
*****									
C4H6O6		H2L					L-Tartaric acid CAS 87-69-4 (92)		
L-Tartaric acid, L-2,3-Dihydroxybutanedioic acid; H00C.CH(OH).CH(OH).COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	NaClO4	20°C	0.10M	U		K1=<2.0	1963STc (31146)	1411
*****									
C4H7N		L					Butyronitrile CAS 109-74-0 (2992)		
Butyronitrile; CH3.CH2.CH2.CN									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.05M	U		B2=0.94	1924PAa (31434)	1412
*****									
C4H7N04		H2L					Aspartic acid CAS 56-84-8 (21)		
Aminobutanedioic acid; H2N.CH(CH2.COOH).COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	oth/un	30°C	0.10M	U		K1= 4.70 B2=11.67	1981PUa (31748)	1413
Ag+	ISE	KNO3	30°C	0.10M	U		K1=4.2 B2=6.97	1977PUa (31749)	1414
*****									
C4H7N04		H2L					IDA CAS 142-73-4 (118)		

Iminodiethanoic acid; HN(CH<sub>2</sub>.COOH)<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KN03	25°C	1.00M	C		K1=3.27 B2=5.90 B(AgHL)=11.40	1992ANa (32152)	1415

Ag+	ISE	NaCl04	25°C	1.00M	U	I	K1=3.30	1989MIa (32153)	1416
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Ag+	ISE	KN03	25°C	0.10M	C	H	K1=3.51 B2=5.79	1981SCa (32154)	1417
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By calorimetry: DH(K1)=-35.8 kJ mol<sup>-1</sup>, DS=-9.2

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C4H7OCl L CAS 23679-22-3 (4310)  
cis-2-Chlorovinyl ethyl ether; Cl.CH:CH.O.CH<sub>2</sub>.CH<sub>3</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sol	KN03	25°C	1.00M	U		K1=-0.45	19690Fa (32452)	1418
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Medium: 50% EtOH, 0.1 M NaCl04

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C4H7OCl L CAS 23679-21-2 (4311)  
trans-2-Chlorovinyl ethyl ether; Cl.CH:CH.O.CH<sub>2</sub>.CH<sub>3</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sol	KN03	25°C	1.00M	U		K1=-0.23	19690Fa (32453)	1419
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Medium: 50% EtOH, 0.1 M NaCl04

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C4H8 L But-1-ene CAS 106-98-9 (2985)  
But-1-ene; CH<sub>2</sub>:CH.CH<sub>2</sub>.CH<sub>3</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	dis oth/un		25°C	->0	U		K1=2.08	1952HTa (32457)	1420
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C4H8 L Isobutene CAS 107-01-7 (2986)  
Isobutene; CH<sub>3</sub>.CH(:CH<sub>2</sub>)CH<sub>3</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	dis oth/un		25°C	->0	U		K1=1.85	1952HTa (32459)	1421
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Ag+	dis	KN03	25°C	1.0M	U		K1=1.79	1938WLa (32460)	1422
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C4H8 L CAS 590-18-1 (804)  
cis-But-2-ene; CH<sub>3</sub>.CH:CH.CH<sub>3</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	dis oth/un		25°C	->0	U		K1=1.79	1952HTa (32461)	1423
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C4H8 L CAS 624-64-6 (805)  
trans-But-2-ene; CH3.CH:C(CH3)H

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ dis oth/un 25°C ->0 U K1=1.39 1952HTa (32463)1424

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C4H8Cl2S L (6425)

Bis(2-Chloroethyl) sulfide;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE alc/w 25°C 100% C I K1=2.45 B2=4.28 1990TIa (32465)1425  
B3=5.31

Medium: MeOH, 0.1 M Et4NClO4. Data also in acetone (K1=2.48, B2=4.18,  
B3=5.88) and DMSO (K1=0.92) and DMF (K1=1.84, B2=2.80)

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C4H8N2O3 HL Asparagine CAS 70-47-3 (17)

2-Aminobutanedioic acid 4-amide; H2N.CH(CH2.CO.NH2).COOH

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ gl oth/un 30°C 0.10M U K1=3.64 B2=6.64 1981PUa (32653)1426

Ag+ ISE oth/un 25°C 0.60M U K1=3.30 B2=6.45 1967AMb (32654)1427

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C4H8N2O3 HL Gly-Gly CAS 556-50-3 (54)

Glycyl-glycine; H2N.CH2.CO.NH.CH2.COOH

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

Ag+ gl NaClO4 30°C 0.10M U T K1=8.01 1980SBe (32970)1428  
At 40 C, K1=8.06

Ag+ gl oth/un 25°C 0.10M U T K1=2.90 B2=5.65 1971PEd (32971)1429

Temperature range 10-40C

K1(10 C)=3.20, K1(40 C)=2.71, B2(10 C)=6.18, B2(40 C)=5.21

Ag+ gl oth/un 21°C 0.02M U K1=3.1 1952PEa (32972)1430

Medium: AgNO3

Ag+ gl oth/un 25°C ->0 U K1=2.72 B2=4.98 1951MOa (32973)1431

\*\*\*\*\*

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  
-----

Ag+ EMF alc/w 25°C 100% M T H K1=9.64 B2=12.71 1994MGa (33150)1432

B3=15.19  
 Medium: EtOH, 0-40 C. DH(K1)=-109 kJ mol<sup>-1</sup>, DS=-184 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-133  
 DS=-204; DH(B3)=-210, DS=414. Method: Ag elect. Other alkyl-thioureas also

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Ag+ EMF alc/w 25°C 100% M T H K1=9.70 B2=13.89 1990MMf (33151)1433  
 B3=16.48

Medium: MeOH, 0-40 C. DH(K1)=-76 kJ mol<sup>-1</sup>, DS=-71 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-82.3,  
 DS=-10; DH(B3)=-105, DS=-37. Method: Ag electrode

\*\*\*\*\*  
 C4H8N2S HL CAS 2055-46-1 (1522)  
 3,4,5,6-Tetrahydro-pyrimidine-2-thiol; C4H7N2.SH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	30°C	0.50M	U		K1=3.8 B2=6.7	1989W1a (33160)	1434

\*\*\*\*\*  
 C4H8N2S L CAS 2122-19-2 (2372)  
 4-Methylimidazolidine-2-thione, 4-Methyl-N,N'-ethylenethiourea

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	diox/w	28°C	80%	U			1964KKa (33164)	1435
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K(Ag+3HL)=9.5

Medium: 80% dioxan, 2M NH4NO3

\*\*\*\*\*  
 C4H8O L CAS 56640-70-1 (2994)  
 1-Methylallyl alcohol; CH2:CH.CH(CH3)OH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sol	KNO3	25°C	0.10M	U		K1=1.15	1949KAb (33172)	1436
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\*\*\*\*\*  
 C4H8O L 2-Methoxypropen CAS 116-11-0 (3565)  
 2-Methoxypropene; CH3.C(OCH3):CH2

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	dis	non-aq	20°C	100%	U T H		K1=0.87	1968FKb (33174)	1437
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Medium: ethylene glycol. K1=0.98(10 C). DH(K1)=-19.6 kJ mol<sup>-1</sup>, DS=-50

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

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sol	oth/un	25°C	0.10M	U		K1=1.04	1949KAb (33175)	1438
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 C4H8O L (4253)  
 3-Methoxyprop-1-ene; CH2:CH.CH2.OCH3

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	NaNO3	25°C	1.00M	U		K1=0.71	1973STd (33177)	1439
*****									
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
Ag+	ISE	NaClO4	25°C	1.0M	U	TIH	K1=0.81	1977HSa (33178)	1440
By temp coeff., DH1=-20.8 kJ mol-1, DS1=-54 J K-1 mol-1, also in MeOH etc.									
Ag+	ISE	NaClO4	25°C	2.0M	U		K1=0.896 B2=0.66	1967HV a (33179)	1441
Ag+	sol	KNO3	25°C	0.10M	U		K1=0.59	1949KAb (33180)	1442
Ag+	dis	KNO3	25°C	1.0M	U		K1=0.71	1938WLa (33181)	1443
*****									
C4H8O		HL		Crotyl alcohol			CAS 627-27-0	(61)	
But-3-en-1-ol; CH2:CH.CH2.CH2.OH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	NaClO4	25°C	1.0M	U	TIH	K1=1.801 B2=2.25	1977HSa (33185)	1444
By temp coeff., DH1=-23.8 kJ mol-1, DS1=-45 J K-1 mol-1, also in MeOH etc.									
*****									
C4H8O		L		Ethoxyethene;			CAS 109-92-2	(3566)	
Ethyl vinyl ether; C2H5.O.CH:CH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	KNO3	25°C	1.0M	U		K1=1.11 B2=0.91	1968FKa (33186)	1445
Ag+	dis	non-aq	30°C	100%	U	T H	K1=0.74	1968FKb (33187)	1446
Medium: ethylene glycol. K1=0.96(10 C),0.83(20 C). DH(K1)=-18.4 kJ mol-1, DS=-46 J K-1 mol-1									
*****									
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
Ag+	ISE	oth/un	25°C	0.10M	U		K1=3.92 B2=6.95	1968PSb (33398)	1447
Acetate buffer. I=0.2 M, K(Ag+HL)=3.17									
Ag+	oth	NaNO3	20°C	1.0M	U		K1=4.1 B2=7.2	1944LAa (33399)	1448
*****									
C4H8O4S2		L					CAS 26413-18-3	(5949)	
1,3-Dithiane 1,1,3,3-tetraoxide;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	2.00M	U			1983DEa (33690)	1449
							K(AgBr(s)+L+OH=AgLOH+Br)=-8.2		
							K(AgBr(s)+2L=AgL2+Br)=3.4		
Ionic medium:2 M KOH. Data also for -CH3 and -C2H5 derivatives of L.									
*****									
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
Ag+	ISE	non-aq	25°C	100%	U	IH	K1=-0.05	1987ZPa (33727)	1450
In pyridine; 0.1M Et4NC104. In DMSO,0.1M NH4C104, K1=1.24									
Ag+	nmr	NaNO3	27°C	0.50M	U	TI	K1=4.70	1982SSb (33728)	1451
Medium: D2O. At 34 C in d6-DMSO, 0.01 M DNO3: K1=1.63									
Ag+	gl	alc/w	25°C	50%	C		K1=3.51	1979SRa (33729)	1452
Ag+	sp	alc/w	25°C	50%	C		K1=3.51	1975RSa (33730)	1453
Medium: 50% EtOH, 1.0 M NaCl04									
*****									
C4H9ClS		L					(6424)		
2-Chloroethyl ethyl sulfide;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	C	I	K1=3.03 B2=4.96 B3=5.97	1990TIa (33745)	1454
Medium: MeOH, 0.1 M Et4NC104. Data also for acetone (K1=3.08, B2=5.43, B3=6.33) and DMSO (K1=1.31, B2=1.97) and DMF (K1=2.43, B2=3.22, B3=4.00)									
*****									
C4H9N		L					CAS 56930-04-2	(3570)	
trans-4-Aminobut-2-ene; CH3.CH:CH.CH2.NH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	NaCl04	25°C	2.0M	U		K1=0.107	1967HVa (33756)	1455
*****									
C4H9NO		L					CAS 127-19-5	(477)	
N,N-Dimethylacetamide; CH3.CO.N(CH3)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	non-aq	25°C	100%	U		K1=1.7 B2=2.7 B3=3.2 B4=3.4	1976CWc (33759)	1456
Medium: propylene carbonate									
*****									

C4H9NO L Morpholine CAS 110-91-8 (318)  
Perhydro-1,4-oxazine, Tetrahydro-1,4-oxazine; C4H8NO

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ ISE non-aq 25°C 100% C H K1=2.58 B2=4.68 1987CBa (33785)1457  
DH1= -24.85 kJ mol<sup>-1</sup>, DH(K2) = -30.70, DS1= -33.9, DS(K2) = -62.8.  
Ag/AgCl electrode in DMSO

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Ag+	ISE	R4N.X	25°C	2.00M	U			K1=4.18 B2=6.91	1969PDa (33786)1458	
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Medium: NH4NO3

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Ag+	oth	non-aq	?	100%	U			B2=9.17	1965MMa (33787)1459	
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Method: coulometric titration. Medium: acetone, 0.1 M NaClO4

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Ag+	gl	alc/w	25°C	50%	U			K1=2.69 B2=5.48	1955ANc (33788)1460	
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Medium: 50 mol % EtOH

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Ag+	gl	KN03	25°C	0.50M	U			K1=2.25 B2=4.92	1948BVa (33789)1461	
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\*\*\*\*\*  
C4H9NO2 HL 4-Aminobutyric CAS 56-12-2 (574)  
4-Aminobutanoic acid; H2N.CH2.CH2.CH2.COOH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ gl KN03 15°C 0.50M U T K1=3.54 B2=7.46 1970PTa (33979)1462  
K1(0 C)=3.82, K1(40 C)=3.46, K2(0 C)=4.12, K2(40 C)=3.75

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Ag+	gl	KN03	20°C	0.50M	U			K1=3.47 B2=7.24	1968ALc (33980)1463	
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By Ag/AgCl ISE: B2=7.32

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Ag+	gl	KN03	25°C	0.50M	U			K1=3.46 B2=7.21	1968TPb (33981)1464	
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C4H9NO2 HL Dimethylglycine CAS 1118-68-9 (88)  
N,N-Dimethyl-2-aminoethanoic acid; (CH3)2N.CH2.COOH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ gl oth/un 25°C .013M U K1=2.90 B2=5.71 1959DGa (34027)1465  
\*\*\*\*\*  
C4H9NO2S HL CAS 3335-52-2 (8306)  
2-(Aminoethyl)thioethanoic acid;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ EMF KN03 25°C 0.50M C K1=5.15 B2= 9.21 1984TSb (34043)1466  
K(Ag+H2L)=1.95  
K(Ag+HL)=2.61  
K(Ag+2H2L)=2.75  
K(Ag+H2L+HL)=3.91



Method: Ag electrode.  $K(\text{Ag}+2\text{HL})=4.44$ ,  $K(\text{Ag}+\text{HL}+\text{L})=7.75$ ,  $B(\text{Ag}2\text{L}2)=13.22$ ,  
 $B(\text{Ag}2\text{L})=7.37$ .

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C4H9NO2S                      HL      Methylcysteine      CAS 1187-84-4      (84)  
2-Amino-3-methylmercaptopropanoic acid;  $\text{H}_2\text{N}.\text{CH}(\text{CH}_2.\text{S}.\text{CH}_3)\text{COOH}$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	KNO3	25°C	0.50M	C			$K1=5.06$ $B2=9.46$ $K(\text{Ag}+\text{H}2\text{L})=2.16$ $K(\text{Ag}+\text{HL})=2.47$ $K(\text{Ag}+2\text{H}2\text{L})=3.16$ $K(\text{Ag}+\text{H}2\text{L}+\text{HL})=3.91$	1984TSb (34086)	1467

Method: Ag electrode.  $K(\text{Ag}+2\text{HL})=4.00$ ,  $K(\text{Ag}+\text{HL}+\text{L})=7.39$ ,  $B(\text{Ag}2\text{L}2)=13.06$ ,  
 $B(\text{Ag}2\text{L})=7.08$ .

Ag+	ISE	KNO3	25°C	0.10M	C			$K1=5.42$ $B2=9.62$ $B(\text{AgHL})=11.54$ $B(\text{AgH}2\text{L}2)=23.10$	1981PSb (34087)	1468
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Ag+	gl	KNO3	25°C	0.10M	U			$K1=5.25$	1964Lma (34088)	1469
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C4H9N3S                      L                                      (3587)  
5-Methyl-2-thioxo-1,3,4-triazahex-4-ene (acetone thiosemicarbazone)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	40%	U			$B3=13.2$	1961TKb (34432)	1470

Medium: 40% EtOH, 0.052 M  $\text{NaC}_2\text{H}_3\text{O}_2$

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C4H9O2PS2                      HL                                      CAS 89620-01-9      (4282)  
Phosphorodithioic acid O,O'-(1,2-dimethyl)ethylene ester,  
Methylvinylphosphorodithioate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	90%	U			$B2=14.61$	1971TCa (34438)	1471

Medium: 90% EtOH, 0.3 M  $\text{NaClO}_4$

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C4H10N2                      L      Piperazine                      CAS 110-85-0      (2826)  
Piperazine; cyclo(- $\text{CH}_2.\text{CH}_2.\text{NH}.\text{CH}_2.\text{CH}_2.\text{NH}-$ )

Ag+	ISE	KNO3	25°C	0.10M	U			$K1=3.33$ $B2=6.04$	1973HBa (34501)	1472
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Ag+	ISE	R4N.X	25°C	2.00M	U			$K1=3.32$ $B2=6.87$	1969PMb (34502)	1473
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Medium:  $\text{NH}_4\text{NO}_3$

Ag+ gl NaNO3 20°C 0.10M U K1=3.4 1952SMa (34503)1474  
 K(Ag+HL)=1.75  
 K(Ag+AgL)=1.5

\*\*\*\*\*

C4H10N2O HL CAS 27620-10-6 (4273)  
 alpha-Hydroxyisobutyramidine;

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

Ag+ gl KNO3 25°C 0.10M U 1970GSb (34515)1475  
 K(Ag+HL)=4.05  
 K(Ag+2HL)=8.61  
 K(Ag(HL)2+OH)=3.45

\*\*\*\*\*

C4H10O2S L CAS 111-48-8 (4275)  
 3-Thiapentan-1,5-diol; HO.CH2.CH2.S.CH2.CH2.OH

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

Ag+ gl NaNO3 25°C 1.0M C I K1=3.43 1979SRa (34676)1476  
 In 1.0 M NaClO4, K1=3.8

Ag+ EMF NaClO4 25°C 0.50M C H K1=3.53 B2= 5.81 1976MHc (34677)1477  
 B3=6.68

Method: Ag electrode. By calorimetry: DH(K1)=-31.6 kJ mol<sup>-1</sup>; DH(B2)=-66.5,  
 DS(B2)=-111 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B3)=-75, DS(B3)=-124

Ag+ ISE KNO3 20°C 1.00M U H K1=3.7 B2=6.10 1970WSa (34678)1478  
 DH(K1)=-33.5 kJ mol<sup>-1</sup>, DS(K1)=-42.3 J K<sup>-1</sup> mol<sup>-1</sup>, DH(K2)=-28.5, DS(K2)=-52.7  
 at pH 3

\*\*\*\*\*

C4H10S L CAS 352-93-2 (4259)  
 Diethyl sulfide; C2H5.S.C2H5

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

Ag+ ISE alc/w 25°C 100% C I K1=3.95 B2=6.60 1990Tia (34718)1479  
 B3=7.63

Medium: MeOH, 0.1 M Et4NClO4. Data also in acetone (K1=3.87, B2=6.91,  
 B3=8.05) and DMSO (K1=1.96, B2=2.84) and DMF (K1=3.02, B2=4.77, B3=5.12)

\*\*\*\*\*

C4H11N L iso-Butylamine CAS 78-81-9 (2355)  
 1-Amino-2-methylpropane; H2N.CH2.CH(CH3).CH3

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

Ag+ oth mixed ? 0.10M U B2=9.68 1965MMa (34726)1480  
 Method: coulometric titration. Medium: acetone, 0.1 M NaClO4

Ag+ gl KNO3 25°C 0.50M U T K1=3.38 B2=7.24 1948Bva (34727)1481

dlogB2/dt=-0.032

\*\*\*\*\*

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  
-----  
Ag+            EMF non-aq 25°C 100% C I      K1=3.60    B2= 6.95    1999THa (34748)1482  
Medium: acetonitrile. Method: Ag/Ag+ electrode.  
Also data for medium: DMSO

-----  
Ag+            gl    KNO3    25°C 1.00M U                      K1=3.453    B2=7.571    1993GYa (34749)1483  
B(AgH-1L2)=-3.66

-----  
Ag+            ISE non-aq 25°C 100% C H      K1=3.58    B2=7.34    1987CBa (34750)1484  
DH1= -31.40 kJ mol-1, DH(K2)=-40.10, DS1= -37.2, DS(K2)= -62.4.  
Ag/AgCl electrode in DMSO

-----  
Ag+            gl    KCl    25°C 0.10M U                      K1=3.65    B2=7.77    1980HAa (34751)1485

-----  
Ag+            gl    none    25°C 0.00 U                      K1=3.55    B2=7.77    1971HTa (34752)1486

-----  
Ag+            gl    KNO3    20°C 0.50M U                      K1=3.50    B2=7.60    1968ALc (34753)1487  
By Ag/AgCl ISE: B2=7.59

-----  
Ag+            oth non-aq    ?    100% U                      B2=10.3                      1965MMa (34754)1488  
Method: coulometric titration. Medium: acetone, 0.1 M NaClO4

-----  
Ag+            gl    oth/un 25°C 0.50M U                      K1=3.43    B2=7.48    1950BJa (34755)1489  
Medium: C4H11N.HNO3

\*\*\*\*\*

C4H11N                      L      t-Butylamine                      CAS 75-64-9    (158)  
2-Amino-2-methylpropane; H2N.C(CH3)3

-----  
Metal            Mtd Medium Temp Conc Cal Flags Lg K values                      Reference ExptNo  
-----  
Ag+            gl    KCl    25°C 0.10M U                      K1=3.69    B2=7.87    1980HAa (34782)1490

-----  
Ag+            gl    alc/w 25°C 50% U                      K1=4.01    B2=8.26    1955ANc (34783)1491  
Medium: 50 mol % EtOH

\*\*\*\*\*

C4H11N                      L      sec-Butylamine                      CAS 33966-50-6    (3578)  
2-Aminobutane; C2H5.CH(NH2).CH3

-----  
Metal            Mtd Medium Temp Conc Cal Flags Lg K values                      Reference ExptNo  
-----  
Ag+            oth mixed    ?    0.10M U                      B2=10.76                      1965MMa (34792)1492  
Method: coulometric titration. Medium: acetone, 0.1 M NaClO4

\*\*\*\*\*

C4H11N                      L      Diethylamine                      CAS 109-89-7    (1331)

Diethylamine, 3-azapentane; (C<sub>2</sub>H<sub>5</sub>)<sub>2</sub>NH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO <sub>3</sub>	25°C	1.00M	U			K1=3.11 B2=6.43	1993GYa (34803)	1493
Ag+	ISE	R4N.X	25°C	2.00M	U			K1=3.00 B2=6.96	1968PMa (34804)	1494
Medium: NH <sub>4</sub> NO <sub>3</sub>										
Ag+	ISE	R4N.X	25°C	2.00M	U			K1=4.93 B2=7.08	1968PMc (34805)	1495
Medium: NH <sub>4</sub> NO <sub>3</sub>										
Ag+	ISE	alc/w	25°C	80%	U	I		B2=7.81	1963PLa (34806)	1496
Medium: 80% MeOH, 0.02. B2=6.27(0%), 6.38(20%), 6.51(30%), 6.59(40%), 6.63(50%), 6.64(60%), 6.72(70%)										
Ag+	gl	alc/w	25°C	50%	U			K1=3.26 B2=6.43	1955ANc (34807)	1497
Medium: 50 mol % EtOH										
Ag+	ISE	oth/un	25°C	->0	U			B2=6.38	1955FYb (34808)	1498
Ag+	gl	KNO <sub>3</sub>	30°C	0.50M	U			K1=2.98 B2=6.20	1945CMA (34809)	1499
Ag+	ISE	oth/un	15°C	0.10M	U			B2=6.40	1936BWA (34810)	1500
Ag+	ISE	alc/w	25°C	50%	U			B2=6.37	1934LAB (34811)	1501
Medium: 50 mol % EtOH										
Ag+	ISE	oth/un	15°C	0.01M	U			B2=6.98	1928JOa (34812)	1502
Ag+	ISE	oth/un	16°C	0.01M	U			B2=5.77	1924PAa (34813)	1503

C<sub>4</sub>H<sub>11</sub>N L (6678)

Dimethylethylamine; (CH<sub>3</sub>)<sub>2</sub>NCH<sub>2</sub>CH<sub>3</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO <sub>3</sub>	25°C	1.00M	U			K1=1.979 B2=3.49	1993GYa (34822)	1504
*****										
C <sub>4</sub> H <sub>11</sub> NO		L						CAS 110-73-6	(900)	
2-(Ethylamino)ethanol; CH <sub>3</sub> .CH <sub>2</sub> .NH.CH <sub>2</sub> .CH <sub>2</sub> .OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	KNO <sub>3</sub>	25°C	2.00M	U			B2=5.77	1970UPa (34835)	1505
*****										
C <sub>4</sub> H <sub>11</sub> NO		L						CAS 13054-87-0	(2665)	
2-Amino-1-butanol; CH <sub>3</sub> .CH <sub>2</sub> .CH(NH <sub>2</sub> ).CH <sub>2</sub> .OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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-----  
Ag+ ISE KNO3 25°C 0.50M U K1=3.35 B2=7.14 1972PEa (34840)1506  
\*\*\*\*\*

C4H11NO L CAS 13325-10-5 (3589)  
4-Amino-1-butanol; H2N(CH2)4.OH

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

Ag+ ISE KNO3 25°C 0.50M U K1=3.32 B2=7.20 1972PEa (34858)1507

Ag+ gl KNO3 20°C 0.50M U K1=3.39 B2=7.27 1968ALc (34859)1508  
By Ag/AgCl ISE: B2=7.32  
\*\*\*\*\*

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  
-----

Ag+ sol oth/un 20°C 0.0 U B2=3.83 1961ALa (34873)1509  
Medium: 0 corr. By glass electrode: B2=3.80  
\*\*\*\*\*

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  
-----

Ag+ gl KNO3 25°C 0.50M U K1=4.81 B2=9.21 1977TGa (34885)1510  
B(2Ag+L)=7.05  
B(2Ag+2L)=12.82  
B(Ag+HL)=2.55  
B(Ag+HL+L)=7.54

B(Ag+2HL)=4.11

-----  
Ag+ cal KNO3 25°C 0.50M C H 1977TGc (34886)1511  
DH(Ag+HL)=-28.1 kJ mol<sup>-1</sup>, DH(Ag+2HL)=-46.44, DH(Ag+HL+L)=-70.3,  
DH(B2)=-80.0, DH(2Ag+2L)=-118.0, DH(2Ag+L)=-66.9.

-----  
Ag+ gl oth/un 20°C 0.0 U T H K1=4.97 B2=9.08 1959LBb (34887)1512  
DH(K1)=-37 kJ mol<sup>-1</sup>, DS=-29; DH(K2)=-25, DS=-4. 10 C: K1=5.18, K2=4.34;  
30 C: K1=4.78, K2=3.95; 40 C: K1=4.52, K2=3.80

-----  
Ag+ gl NaClO4 30°C 1.0M U T K1=4.53 B2=7.46 1953MCa (34888)1513  
50 C: K1=4.18, K2=2.65. At I=0 K1=4.69, K2=4.04  
\*\*\*\*\*

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  
-----

Ag+ gl NaClO4 25°C 0.50M U H K1=2.69 B2=5.48 1978MHa (34935)1514

By calorimetry, DH1=-21.5 kJ mol<sup>-1</sup>, DS1=20.8 J K<sup>-1</sup> mol<sup>-1</sup>, DH(B2)=-49,  
DS(B2)=60

-----  
Ag+ gl NaNO3 25°C 0.20M U K1=3.3 B2=5.7 1974UPa (34936)1515  
Medium: LiNO3  
-----

Ag+ gl alc/w 25°C 100% U K1=5.0 B2=7.2 1974UPa (34937)1516  
B3 7.04  
Medium: MeOH, 0.2 M LiNO3  
-----

Ag+ gl alc/w 25°C 100% U K1=5.0 B2=7.4 1974UPa (34938)1517  
B3 7.3  
Medium: MeOH, 0.2 M LiNO3  
-----

Ag+ gl oth/un ? 0.20M U K1=4.6 B2=6.7 1974UPb (34939)1518  
Medium: DMF, 0.2 M LiNO3. In DMSO: K1=3.3, B2=5.3  
-----

Ag+ ISE mixed 25°C 60% U I K1=4.74 B2=6.18 1973MPf (34940)1519  
B3=6.78  
Medium: 20-95% acetone, 0.4 M LiNO3  
K1(20%)=4.17, B2(20%)=5.53, B2(95%)=6.85, B3(20%)=6.20, B3(95%)=7.61  
-----

Ag+ ISE diox/w 25°C 40% U I K1=4.78 B2=5.95 1972MPc (34941)1520  
B3=7.08  
Medium: 20-70% dioxan, 0.4 M LiNO3  
K1(20%)=3.87, B2(20%)=5.57, B2(70%)=6.23, B3(20%)=6.62, B3(70%)=7.20  
-----

Ag+ ISE KNO3 25°C 0.50M U K1=2.70 B2=5.64 1972PEa (34942)1521  
-----

Ag+ ISE alc/w 25°C 100% U I K1=5.40 B2=6.98 1965MPb (34943)1522  
B3=7.68  
Medium: EtOH, 0.4 M LiNO3. K1=3.48(0%), 4.30(40%), 4.90(80%), 5.04(90%); B2=5.60(0%)  
6.20(40%), 6.68(80%), 6.74(90%); B3=6.2(0%), 6.53(40%), 7.08(80%), 7.28(90%)  
-----

Ag+ ISE oth/un 25°C 0.01M U B2=5.44 1961ALb (34944)1523  
-----

Ag+ gl KNO3 25°C 0.50M U K1=2.69 B2=5.48 1956BJb (34945)1524  
-----

Ag+ gl alc/w 25°C 50% U K1=2.69 B2=5.48 1955ANc (34946)1525  
Medium: 50 mol % EtOH  
-----

\*\*\*\*\*  
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  
-----

Ag+ gl oth/un 25°C .027M U K1=3.20 B2=6.86 1959DGa (34981)1526  
\*\*\*\*\*

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
Ag+	ISE	NaClO4	25°C	3.00M	C		K1=3.406 B2=7.198 B(AgH-1L)=-6.40	1982GFb (35039)	1527
Ag+	vlt	NaClO4	25°C	2.00M	U		B2=6.45	1975BMb (35040)	1528
Ag+	gl	KNO3	60°C	0.05M	U T		K1=2.79 B2=5.69	1966DGa (35041)	1529
K1=3.50(0 C),3.39(10 C),3.22(20 C),3.05(30 C),2.90(40 C),2.90(50 C); K2=4.04(0 C),3.77(10 C),3.53(20 C),3.33(30 C),3.16(40 C),3.02(50 C)									
Ag+	gl	KNO3	0°C	0.05M	U T H			1966DGa (35042)	1530
DH(K1)=-10(0C),-29(20),-24(40),7(60) kJ mol-1; DS=32,-36,-21,75 J K-1 mol-1 DH(K2)=-42(0C),-36(20),-33(40),-22(60); DS=-78(0), -55(20), -32(40), -10(60)									
Ag+	oth	KNO3	?	0.50M	U		K1=3.05 B2=6.53	1959SWb (35043)	1531
Ag+	gl	oth/un	23°C	?	U		K1=3.09 B2=6.56	1955BBa (35044)	1532
***** C4H11NO3S HL CAS 14064-34-7 (4286) 4-Aminobutanesulfonic acid; H2N.CH2CH2CH2CH2.SO3H									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.50M	U		K1=3.38 B2=7.08	1972PTa (35068)	1533
***** C4H11NS L CAS 36489-03-9 (1216) 1-Amino-3-thiapentane; H2N.CH2.CH2.S.CH2.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.50M	U		K1=5.07 B2=9.66 B(2Ag+L)=7.42 B(2Ag+2L)=13.66 B(Ag+HL)=2.99 B(Ag+L+HL)=8.09	1977TGa (35122)	1534
B(Ag+2HL)=4.66									
Ag+	cal	KNO3	25°C	0.50M	C H			1977TGc (35123)	1535
DH(Ag+HL)=-31.0 kJ mol-1, DH(Ag+2HL)=-58.2, DH(Ag+HL+L)=-77.0, DH(B2)=-84.9, DH(2Ag+2L)=-127, DH(2Ag+L)=-72.0. ***** C4H11NS L CAS 4104-45-4 (1219) 1-Amino-4-thiapentane; H2N.CH2.CH2.CH2.S.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.50M	U		K1=4.79 B2=7.82 B(2Ag+L)=7.20	1977TGa (35126)	1536

B(2Ag+2L)=13.69  
B(Ag+HL)=3.33  
B(Ag+HL+L)=7.13

B(Ag+2HL)=5.60

-----  
Ag+ cal KNO3 25°C 0.50M C H 1977TGc (35127)1537  
DH(Ag+HL)=-31.6 kJ mol<sup>-1</sup>, DH(Ag+2HL)=-59.0, DH(Ag+HL+L)=-69.5,  
DH(B2)=-72.8, DH(2Ag+2L)=-124, DH(2Ag+L)=-60.7.

\*\*\*\*\*  
C4H110PS2 HL CAS 995-79-9 (4283)  
O-Ethyl hydrogen P-ethylphosphonodithioate;  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE alc/w 25°C 90% U B2=16.39 1971TCa (35204)1538  
Medium: 90% EtOH, 0.3 M NaClO4

\*\*\*\*\*  
C4H1102PS2 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  
-----  
Ag+ ISE alc/w 25°C 90% U K2=15.24 1971TCa (35223)1539  
Medium: 90% EtOH, 0.3 M NaClO4

\*\*\*\*\*  
C4H1103PS HL CAS 2465-65-8 (3596)  
Phosphorothioic acid OO-diethyl ester; (C2H5O)2.POSH  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE oth/un 25°C 1.0M U B3=10.81 1961TSa (35249)1540  
-----

\*\*\*\*\*  
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  
-----  
Ag+ gl KNO3 25°C 1.0M C B2=8.04 1994GYb (35322)1541  
B(AgHL)=12.30  
B(AgH2L2)=24.58  
B(AgHL2)=16.96  
B(Ag2L2)=12.70

B(Ag2HL2)=19.67, B(Ag2L3)=15.20  
\*\*\*\*\*  
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  
-----



Ag+ gl KNO3 25°C 1.0M C K1=5.45 1999GYa (35355)1542

K(Ag+HL)=3.28  
K(Ag+2HL)=6.50  
B(Ag2L)=7.24  
B(Ag2L2)=14.45

Additional method: Ag/Ag2S electrode. B(AgHL)=14.20, B(AgH2L2)=28.36

Ag+ gl oth/un 25°C 3.00M C K1=6.4 B2=8.6 19770Ca (35356)1543

B(AgHL)=14.68  
B(AgH2L2)=29.83  
B(AgH-1L)=-4.4, B(Ag2L)=7.2  
B(Ag2L2)=15.27

Medium: LiClO4

Ag+ gl oth/un 20°C ->0 U T H K1=5.67 1958BFa (35357)1544  
DH(K1)=-44.8 kJ mol<sup>-1</sup>, DS1=-46. K1=6.00(10 C), 5.30(30 C), 5.19(40 C)

Ag+ gl NaNO3 20°C 0.10M U K1=5.9 1952SMa (35358)1545  
K(Ag+HL)=3.1

\*\*\*\*\*

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

Ag+ gl KNO3 25°C 1.0M C K1=3.49 B2=6.53 1994GYb (35415)1546  
B(AgHL)=12.09  
B(AgHL2)=15.69  
B(Ag2L2)=10.52

Ag+ vlt non-aq 25°C 100% U K1=2.00 1979SZa (35416)1547  
Medium: DMSO. 0.1 M NaClO4

\*\*\*\*\*

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

Ag+ EMF non-aq 25°C 100% C H K1=4.75 B2= 8.86 2002CNa (35452)1548  
Method: Ag electrode. Medium: DMSO, 0.10 M Et4NClO4. By calorimetry,  
DH(K1)=-42.1 kJ mol<sup>-1</sup>, DS(K1)=-50 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-86.5, DS(B2)=-120.

Ag+ gl KNO3 25°C 1.0M C K1=3.74 B2=7.15 1994GYb (35453)1549  
B(AgHL)=11.78  
B(AgH2L2)=23.57  
B(AgHL2)=15.92  
B(Ag2L2)=9.74

B(Ag2L3)=13.09

\*\*\*\*\*

C4H12N2 L CAS 6291-84-5 (2679)

N-Methyl-1,3-diaminopropane; CH<sub>3</sub>.NH.CH<sub>2</sub>.CH<sub>2</sub>.CH<sub>2</sub>.NH<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO <sub>3</sub>	25°C	1.00M	C		B <sub>2</sub> =7.37 B(AgHL)=13.62 B(AgH <sub>2</sub> L <sub>2</sub> )=27.69 B(AgHL <sub>2</sub> )=17.68 B(Ag <sub>2</sub> L <sub>2</sub> )=13.50	1994GYa (35475)	1550

B(Ag<sub>2</sub>HL<sub>2</sub>)=21.19

\*\*\*\*\*

C<sub>4</sub>H<sub>12</sub>N<sub>2</sub>O L CAS 2752-17-2 (312)

Bis-(2-aminoethyl)ether; H<sub>2</sub>N.CH<sub>2</sub>.CH<sub>2</sub>.O.CH<sub>2</sub>.CH<sub>2</sub>.NH<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	U	H	K <sub>1</sub> =7.14	1985BUb (35500)	1551
Medium: MeOH, 0.05M Et <sub>4</sub> NC <sub>10</sub> 4. DH=-61.5 kJ mol <sup>-1</sup>									

Ag+	gl	oth/un	20°C	0.0	U	T	H	K <sub>1</sub> =5.59	1959LBb (35501)	1552
DH(K <sub>1</sub> )=-60.7 kJ mol <sup>-1</sup> , DS=-100. K <sub>1</sub> =6.01(10 C), 5.31(30 C), 5.91(40 C)										

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C<sub>4</sub>H<sub>12</sub>N<sub>2</sub>S L CAS 871-76-1 (1854)

1,5-Diamino-3-thiapentane; H<sub>2</sub>N.CH<sub>2</sub>.CH<sub>2</sub>.S.CH<sub>2</sub>.CH<sub>2</sub>.NH<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	U	H	K <sub>1</sub> =8.51	1985BUb (35561)	1553
Medium: MeOH, 0.05M Et <sub>4</sub> NC <sub>10</sub> 4. DH=-66.4 kJ mol <sup>-1</sup>									

Ag+	gl	KNO <sub>3</sub>	25°C	0.50M	C		B <sub>2</sub> =9.80 K(Ag+H <sub>2</sub> L)=1.52 K(Ag+2H <sub>2</sub> L)=2.3 K(Ag+HL)=3.9 K(2Ag+2HL)=10.7	1984SGe (35562)	1554
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Additional method: Ag electrode. K(2Ag+HL+L)=14.64, B(Ag<sub>2</sub>L<sub>2</sub>)=17.21, K(Ag+H<sub>2</sub>L+HL)=5.7, K(Ag+2HL)=8.18, K(Ag+HL+L)=9.25, B(Ag<sub>2</sub>L)=9.60.

Ag+	cal	KNO <sub>3</sub>	25°C	0.50M	C	H		1984STc (35563)	1555
DH(Ag+H <sub>2</sub> L)=-22 kJ mol <sup>-1</sup> , DS(Ag+H <sub>2</sub> L)=-45 J K <sup>-1</sup> mol <sup>-1</sup> ; DH(Ag+2H <sub>2</sub> L)=-39, DS(Ag+2H <sub>2</sub> L)=-87; DH(2Ag+2L)=-143.9, DS=-153; DH(B <sub>2</sub> )=-78.3, DS(B <sub>2</sub> )=-75.									

Ag+	gl	KNO <sub>3</sub>	0°C	1.0M	U	T	K <sub>1</sub> =8.18	1951G0a (35564)	1556
30 C: K <sub>1</sub> =7.00; 50 C: K <sub>1</sub> =6.30									

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C<sub>4</sub>H<sub>13</sub>N<sub>3</sub> L CAS 14478-63-8 (3000)

1,3-Diamino-2-aminomethylpropane; H<sub>2</sub>N.CH<sub>2</sub>.CH(CH<sub>2</sub>.NH<sub>2</sub>).CH<sub>2</sub>.NH<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ gl KNO3 20°C 0.10M U K1=8.70 1962ANb (35630)1557  
\*\*\*\*\*

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  
-----

Ag+ EMF NaClO4 25°C 100% C H K1=10.21 B2=13.18 2000CDa (35731)1558  
Medium: DMF, 0.10 M Et4N[CF3SO3]. Method: Ag/Ag+ electrode.  
By calorimetry: DH(K1)=-90.4, DH(B2)=-108.8 kJ mol-1.

-----  
Ag+ cal non-aq 25°C 100% U H 1989CDa (35732)1559  
Medium: DMSO. DH(K1)=-78.2 kJ mol-1; DS=-119. DH(B2)=-94; DS=-120.

-----  
Ag+ ISE non-aq 25°C 100% C K1=7.46 B2=10.20 1988CBa (35733)1560  
Medium: DMSO

-----  
Ag+ ISE alc/w 25°C 100% U H K1=8.07 1985BUB (35734)1561  
Medium: MeOH, 0.05M Et4NClO4. DH=-55.2 kJ mol-1

-----  
Ag+ ISE NaNO3 25°C 1.30M C B2=7.90 1984YMa (35735)1562  
B(AgH2L)=20.30, B(AgHL)=13.73  
B(AgH2L2)=27.29, B(AgHL2)=17.78  
B(Ag2H2L2)=30.03, B(Ag2L2)=15.1  
B(Ag2HL2)=22.72, B(Ag3L2)=17.94  
B(AgH-1L)=-5.54, B(Ag2L3)=16.39. Measured using glass and Ag electrodes

-----  
Ag+ gl NaNO3 20°C 0.10M U K1=6.1 1950PSa (35736)1563  
K(Ag+HL)=3.2  
K(Ag+AgL)=1.4

\*\*\*\*\*

C5H4NBr L CAS 626-55-1 (3617)  
3-Bromopyridine; C5H4N.Br

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

Ag+ EMF KNO3 25°C 0.50M U H K1=1.66 B2= 3.31 1976BEb (35992)1564  
Method: Ag electrode. By calorimetry, DH(K1)=-17.2 kJ mol-1,  
DS(K1)=-25.8 J K-1 mol-1, DH(B2)=-39.3, DS(B2)=-68.49.

\*\*\*\*\*

C5H4NCl L CAS 626-60-8 (322)  
3-Chloropyridine; C5H4N.Cl

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

Ag+ gl NaNO3 25°C 0.50M C K1=1.37 1984ERa (36015)1565

-----  
Ag+ EMF KNO3 25°C 0.50M U H K1=1.59 B2= 3.02 1976BEb (36016)1566  
Method: Ag electrode. By calorimetry, DH(K1)=-16.3 kJ mol-1,

DS(K1)=-24.3 J K<sup>-1</sup> mol<sup>-1</sup>, DH(B2)=-37.6, DS(B2)=-68.33.

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C5H4NI L CAS 1120-90-7 (8297)

3-Iodoopyridine;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ EMF KNO3 25°C 0.50M U K1=1.80 B2= 4.12 1976BEb (36027)1567  
Method: Ag electrode.

\*\*\*\*\*

C5H4O3 HL 2-Furoic acid CAS 88-14-2 (2492)

Furan-2-carboxylic acid; C4H3O3COOH

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl NaNO3 25°C 0.10M U K1=1.76 1982MPc (36289)1568  
\*\*\*\*\*

C5H5N L Pyridine CAS 110-86-1 (31)

Pyridine, Azine;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE mixed 25°C 0.10M C I K1=2.54 B2= 4.81 2002PRa (36489)1569  
Ag-electrode; Medium:0.1 M NaClO4 in 0.4 mol parts DMFA in H2O  
for 100% H2O K1=2.81; K2=2.26; for 100% DMFA K1=2.27; K2=2.56;

-----  
Ag+ gl alc/w 25°C 0.04M U I K1=2.40 B2= 4.40 1998SGb (36490)1570  
In 100% H2O K1=1.96  
Medium: 0.04 M Et4NClO4 in 0.7 mol parts EtOH in H2O;

-----  
Ag+ ISE non-aq 25°C 100% U K1=2.09 B2=5.0 1991IGc (36491)1571  
Medium: propylenecarbonate

-----  
Ag+ ISE KNO3 25°C 0.10M U K1=2.20 B2=4.26 1989IGa (36492)1572

-----  
Ag+ cal oth/un 25°C dil C H K1=2.07 B2= 4.17 19890Fa (36493)1573  
DH(K1)=-20.38 kJ mol<sup>-1</sup>, DH(B2)=-51.71.

-----  
Ag+ ISE non-aq 25°C 100% C H K1=1.41 B2=2.11 1987CBa (36494)1574  
DH1=-13.93, DH(K2)=-27.00, DS1= -19.7, DS(K2)= -77.0.  
Ag/AgCl Ion Selective Electrode used in DMSO

-----  
Ag+ ISE KNO3 25°C 0.10M C K1=2.33 B2=4.13 1985YWa (36495)1575

-----  
Ag+ ISE non-aq ? 100% U B2=3.42 1984IGa (36496)1576  
Medium: CH3CN

-----  
Ag+ ISE non-aq 25°C 100% U K1=4.40 B2=9.3 1981TLa (36497)1577  
B3=10.3  
B4=10.7

Medium: Propylene carbonate

-----  
Ag+ EMF NaClO4 25°C 0.10M C K1=1.91 B2= 4.22 1977PMa (36498)1578  
Method: Ag electrode.  
-----

Ag+ cal KNO3 25°C 0.50M U H 1974BEa (36499)1579  
DH(K1)=-19.8, DH(B2)=-46.8 kJ mol<sup>-1</sup>. B values from: E M Foundou,  
K Hounbossa, G Berthon et al, Acad. Sci.,274,832 (1972)  
-----

Ag+ gl KNO3 25°C 0.10M U K1=1.95 B2=3.97 1974ILa (36500)1580  
-----

Ag+ gl KNO3 25°C 0.50M U K1=2.01 B2=4.16 1972BJa (36501)1581  
-----

Ag+ ISE KNO3 25°C 0.50M U K1=2.06 B2=4.18 1972FHB (36502)1582  
-----

Ag+ ISE alc/w 25°C 42% U I K1=2.01 B2=4.08 1972MAb (36503)1583  
Medium: 9-93.8% EtOH, 0.1 M  
K1(9.9%)=1.87, K1(93.8%)=2.20, B2(9.9%)=4.01, B2(93.8%)=4.50  
-----

Ag+ ISE alc/w 25°C 96% U K1=2.20 B2=4.50 1972MTb (36504)1584  
Medium: 96% EtOH, 0.1 M NaClO4  
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Ag+ cal oth/un 25°C 0.0 U H K1=2.05 B2=4.10 1968IEa (36505)1585  
DH(K1)=-19.2 kJ mol<sup>-1</sup>,DS=-25.1 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-46.8,DS=-79.0  
-----

Ag+ gl KNO3 25°C 0.61M U K1=2.12 B2=4.25 1967SBd (36506)1586  
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Ag+ cal KNO3 25°C 0.50M U H K1=2.00 B2=4.11 1966PVa (36507)1587  
DH(K1)=-20.2 kJ mol<sup>-1</sup>,DS=-29.3 J K<sup>-1</sup> mol<sup>-1</sup>; DH(K2)=-27.2,DS=51  
-----

Ag+ EMF alc/w 25°C 75% U I B2=3.88 1965NAb (36508)1588  
Medium: 75% EtOH, 0.2 M LiNO3. K1=1.96(0%),B2=4.19(0);B2=4.19(25%),3.86(50%)  
-----

Ag+ ISE mixed 25°C 90% U I B2=5.12 1965PLa (36509)1589  
Medium: 90% acetone. B2=4.21(0%),4.20(10%),4.18(20%),4.16(30%),4.18(40%),  
4.23(50%),4.35(60%),4.47(70%),4.72(80%)  
-----

Ag+ ISE diox/w 25°C 90% U I B2=4.80 1965PLa (36510)1590  
Medium: 90% dioxan. B2=4.14(10%),4.05(30%),4.06(50%),4.30(70%). In EtOH:  
B2=4.26(10%),4.25(30%),4.12(50%),3.97(70%),4.16(90%)  
-----

Ag+ cal oth/un 25°C ? U H K1=2.25 B2=4.19 1963BBc (36511)1591  
DH(K1)=-19.9 kJ mol<sup>-1</sup>,DS=-23.8 J K<sup>-1</sup> mol<sup>-1</sup>; DH(K2)=-28.3,DS=-57.7  
-----

Ag+ ISE NaClO4 ? 0.10M U K1=1.87 B2=4.09 1962NAb (36512)1592  
-----

Ag+ ISE KNO3 25°C 0.10M U K1=1.90 B2=4.25 1961CSa (36513)1593  
-----

Ag+ ISE alc/w 20°C 100% U I K1=4.68 1958PPa (36514)1594  
Medium: EtOH. In MeCN K1=4.45  
-----

Ag+	gl	alc/w	25°C	50%	U	K1=1.87	B2=3.92	1955ANc (36515)	1595
Medium: 50 mol % EtOH									
Ag+	gl	oth/un	25°C	->0	U	K1=1.97	B2=4.35	1955MBc (36516)	1596
Ag+	ISE	oth/un	25°C	->0	U	B2=3.82		1952FYb (36517)	1597
Ag+	gl	oth/un	25°C	0.50M	U	K1=2.01	B2=4.16	1950BJa (36518)	1598
Medium: 0.5 M C5H5N.HNO3									
Ag+	gl	KN03	25°C	0.50M	U T	K1=2.04	B2=4.22	1948BVa (36519)	1599
35 C: K1=1.93, K2=2.07									
Ag+	sol	oth/un	25°C	->0	U	K1=2.00	B2=4.11	1943VCa (36520)	1600
Ag+	ISE	oth/un	18°C	0.02M	U	B2=4.44		1936BWa (36521)	1601
Ag+	ISE	alc/w	25°C	50%	U	B2=3.88		1934LAb (36522)	1602
Medium: 50 mol % EtOH									
Ag+	sol	oth/un	16°C	0.01M	U	B2=4.42		1933TAa (36523)	1603
Ag+	ISE	oth/un	18°C	0.10M	U	B2=4.14		1930K0a (36524)	1604
Ag+	ISE	oth/un	18°C	0.25M	U	B2=4.40		1904EUb (36525)	1605
*****									
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
Ag+	ISE	KN03	25°C	0.50M	U		K1=1.35 B2=3.49	1985KLa (36704)	1606
Simultaneous measurement of Ag+ and H+									
*****									
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
Ag+	ISE	alc/w	25°C	50%	U		B2=3.78	1980BTb (36854)	1607
*****									
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
Ag+	ISE	KN03	25°C	0.50M	U		K1=2.32 B2=4.80	1985KLa (37112)	1608
Ag+	ISE	alc/w	25°C	50%	U I		B2=5.03	1973BNd (37113)	1609

Medium: 0-96% EtOH, 0.2 M LiNO<sub>3</sub>. B<sub>2</sub>(0%)=4.85, B<sub>2</sub>(50%)=5.03, B<sub>2</sub>(60%)=5.85  
 0-90% propanol, B<sub>2</sub>(50%)=4.96, B<sub>2</sub>(90%)=5.70. 0-90% acetone, B<sub>2</sub>(90%)=6.19

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Ag+	gl	KNO <sub>3</sub>	25°C	0.61M	U		K <sub>1</sub> =2.38	B <sub>2</sub> =4.79	1967SBd (37114)	1610
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Ag+	gl	oth/un	25°C	?	U T		K <sub>1</sub> =2.17	B <sub>2</sub> =5.21	1964PCa (37115)	1611
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35 C: K<sub>1</sub>=2.60, K<sub>2</sub>=2.49; 45 C: K<sub>1</sub>=2.78, K<sub>2</sub>=2.73

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C<sub>5</sub>H<sub>6</sub>N<sub>2</sub> L 2-Methylpyrazin CAS 109-08-0 (1785)  
 2-Methylpyrazine, 2-Methyl-1,4-diazine; C<sub>4</sub>H<sub>3</sub>N<sub>2</sub>.CH<sub>3</sub>

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	KNO <sub>3</sub>	25°C	0.10M	U	H		K <sub>1</sub> =1.65	B <sub>2</sub> =2.76	1974HEa (37133)	1612
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DH(K<sub>1</sub>)=-20.04 and DH(B<sub>2</sub>)=-70.71 kJ mol<sup>-1</sup>.

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C<sub>5</sub>H<sub>6</sub>N<sub>2</sub> L 3-Aminopyridine CAS 462-08-8 (1477)  
 3-Aminoazine, 3-Pyridylamine; C<sub>5</sub>H<sub>4</sub>N.NH<sub>2</sub>

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	ISE	KNO <sub>3</sub>	25°C	0.50M	U			K <sub>1</sub> =2.19	B <sub>2</sub> =4.48	1985KLa (37153)	1613
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Ag+	ISE	alc/w	25°C	50%	U			B <sub>2</sub> =4.62	1980BTb (37154)	1614
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Ag+	EMF	KNO <sub>3</sub>	25°C	0.50M	U	H		K <sub>1</sub> =2.24	B <sub>2</sub> = 4.41	1976BEb (37155)	1615
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Method: Ag electrode. By calorimetry, DH(K<sub>1</sub>)=-23.0 kJ mol<sup>-1</sup>,  
 DS(K<sub>1</sub>)=-34.1 J K<sup>-1</sup> mol<sup>-1</sup>, DH(B<sub>2</sub>)=-51.88, DS(B<sub>2</sub>)=-89.66.

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Ag+	gl	KNO <sub>3</sub>	25°C	0.61M	U			K <sub>1</sub> =2.21	B <sub>2</sub> =4.41	1967SBd (37156)	1616
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Ag+	gl	oth/un	25°C	?	U T			K <sub>1</sub> =2.17	B <sub>2</sub> =5.21	1964PCa (37157)	1617
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35 C: K<sub>1</sub>=2.15, K<sub>2</sub>=3.00; 45 C: K<sub>1</sub>=2.12, k<sub>2</sub>=2.95

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C<sub>5</sub>H<sub>6</sub>N<sub>2</sub> L CAS 5053-43-0 (1485)  
 3-Methyl-1,2-diazine, 3-Methylpyridazine; C<sub>4</sub>H<sub>3</sub>N<sub>2</sub>.CH<sub>3</sub>

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	ISE	KNO <sub>3</sub>	25°C	0.50M	U			K <sub>1</sub> =1.78	B <sub>2</sub> =3.26	1986KLa (37164)	1618
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C<sub>5</sub>H<sub>6</sub>N<sub>2</sub> L 4-Aminopyridine CAS 504-24-5 (1356)  
 4-Aminoazine, 4-Pyridylamine; C<sub>5</sub>H<sub>4</sub>N.NH<sub>2</sub>

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	ISE	alc/w	25°C	50%	U	I		B <sub>2</sub> =6.21	1973BNd (37172)	1619
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Medium: 0-96% EtOH, 0.2 M LiNO<sub>3</sub>: B<sub>2</sub>(0%)=6.04, B<sub>2</sub>(96%)=6.90

In 0-90%(v/v) propanol: B<sub>2</sub>(50%)=6.21; In 0-90%acetone: B<sub>2</sub>(50%)=7.64

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Ag+ gl oth/un 25°C ? U T K1=2.80 B2=6.20 1964PCa (37173)1620  
35 C: K1=2.76, K2=3.27; 45 C: K1=2.71, K2=3.14

\*\*\*\*\*

C5H6N2 L CAS 3438-46-8 (1481)

4-Methyl-1,3-diazine; 4-Methylpyrimidine; C4H3N2.CH3

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

Ag+ ISE KNO3 25°C 0.50M U K1=1.91 B2=3.24 1986KLa (37179)1621

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C5H7NO L CAS 617-89-0 (3036)

Furfurylamine; C4H3O.CH2.NH2

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

Ag+ gl KNO3 30°C 1.0M U K1=2.64 B2=5.98 1954GFb (37495)1622

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C5H7NO2 HL Glutarimide CAS 1121-89-7 (4312)

Piperidine-2,6-dione;

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

Ag+ gl alc/w 45°C 50% C K1=5.37 B2= 9.73 1996MMc (37507)1623

Medium: 50% v/v MeOH/H2O, 0.10 M KNO3.

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C5H7NO4S2 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  
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Ag+ EMF KNO3 22°C 1.00M U K1=14.12 1970TPb (37553)1624

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C5H7NS L CAS 27757-85-3 (3037)

2-Thienylmethylamine (2-Thiophenemethylamine)

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

Ag+ gl KNO3 30°C 1.0M U K1=2.87 B2=6.51 1954GFb (37572)1625

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C5H7N3 L (1482)

2-Amino-4-methyl-1,3-diazine; C4H2N2(NH2)(CH3)

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

Ag+ ISE KNO3 25°C 0.50M U K1=2.03 B2=3.67 1986KLa (37576)1626

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C5H8 L CAS 1489-60-7 (3598)

1-Methylcyclobutene; CH3.C4H5

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+      dis non-aq 30°C 100% U      K1=-0.27      1962GHa (37599)1627
Medium: ethylene glycol, 1.77 M AgNO3. method: gas chromatography
*****
C5H8      L      CAS 1120-56-5 (3599)
Methylenecyclobutane; CH2:C4H6
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Ag+      dis non-aq 30°C 100% U      K1=0.91      1962GHa (37601)1628
Medium: ethylene glycol, 1.77 M AgNO3. Method: gas chromatography
*****
C5H8N2      L      CAS 930-62-1 (3023)
2,4-Dimethylimidazole; C3H2N2(CH3)2
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+      gl  KNO3  25°C 1.00M U      K1=3.44  B2=7.50  1969NNa (37642)1629
*****
C5H8N2      L      CAS 1072-62-4 (929)
2-Ethylimidazole; C3H3N2.C2H5
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+      gl  KNO3  25°C 1.00M U      K1=3.06  B2=6.89  1969NNa (37659)1630
*****
C5H8N2      L      Di-Me-Pyrazole  CAS 67-51-6 (369)
3,5-Dimethyl-1,2-diazole; C3H2N2(CH3)2
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+      ISE KNO3  25°C 0.50M M      K1=2.38  B2=4.83  1986BGa (37673)1631
-----
Ag+      ISE alc/w 25°C 20% C T H      K1=3.15  B2=5.53  1977PGb (37674)1632
*****
C5H8N2O      L      (1429)
5-Amino-3,4-dimethylisoxazole; C3NO(CH3)2(NH2)
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+      ISE KNO3  25°C 0.50M U      K1=1.63  B2=3.58  1983Gwa (37684)1633
*****
C5H8N4      L      (4293)
1,5-Tetramethylenetetrazole;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+      ISE KNO3  25°C 0.10M U I      B2=3.07      1969DPc (37726)1634
I=0.4 M, B2=3.03
*****

```

C5H8O2 HL CAS 591-80-0 (961)  
 4-Pentenoic acid; CH2:CH.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	M T H		K1=2.009	1975IPa (37738)	1635

Medium: K-acetate. DH = -17.5 kJ mol<sup>-1</sup>; DS = -20.1 J K<sup>-1</sup> mol<sup>-1</sup>.  
 \*\*\*\*\*

C5H8O2 HL Acetylacetone CAS 123-54-6 (164)  
 Pentane-2,4-dione; CH3.CO.CH2.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	diox/w	30°C	75%	U		K1=9.72	1967SUa (37873)	1636

\*\*\*\*\*

C5H8O2S HL CAS 102970-70-7 (4316)  
 (Prop-1-enylthio)ethanoic acid; CH2:CH.CH2.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.20M	U T H		K1=3.74 B2=6.71 K(Ag+HL)=3.04 K(Ag+2HL)=4.98	1971BFb (38151)	1637

DH(K1)=-28.9 kJ mol<sup>-1</sup>, DH(K2)=-20  
 K1(0.6 C)=4.18, K1(39 C)=3.50, B2(0.6 C)=7.56, B2(39 C)=6.39

Ag+	ISE	oth/un	25°C	0.10M	U I		K1=3.78 B2=6.76	1968PSb (38152)	1638
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Acetate buffer. I=0.2, K(Ag+HL)=3.04  
 \*\*\*\*\*

C5H8O3 HL CAS 16874-33-2 (2493)  
 Tetrahydrofuran-2-carboxylic acid; C4H7O.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	diox/w	25°C	50%	U		K1=1.86	1982MPc (38180)	1639

\*\*\*\*\*

C5H8O4S H2L CAS 36303-63-6 (988)  
 3-Thiahexane-1,6-dioic acid; HOOC.CH2.S.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KN03	25°C	0.10M	C		K1=4.40 B2=7.46 K(Ag+HL)=3.63 K(Ag+H2L)=3.41	1975LPa (38379)	1640

\*\*\*\*\*

C5H8O4S2 H2L CAS 2068-24-8 (908)  
 2,2'-(Methylenebis(thio))bis-ethanoic acid; HOOC.CH2.S.CH2.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	NaClO4	25°C	0.50M	U	K1=4.60		1981NAa (38392)	1641
K(AgL+H)=3.56									
Ag+	ISE	NaNO3	20°C	1.0M	U	K1=4.7	B2=6.5	1944LAa (38393)	1642
*****									
C5H9NO2		H2L				CAS 69651-97-4		(1164)	
2-Amino-(2-allyl)ethanoic acid; H2N.CH(CH2.CH:CH2)COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.10M	C	K1=4.22	B2=7.382	1975IPb (38465)	1643
K(Ag+HL)=1.20									
*****									
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
Ag+	gl	oth/un	30°C	0.10M	U	K1=3.84	B2=6.52	1981PUa (38586)	1644
Ag+	gl	KNO3	20°C	0.5M	U	K1=2.90	B2=6.58	1974KHb (38587)	1645
*****									
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
Ag+	gl	KNO3	20°C	0.5M	U	K1=2.66	B2=6.43	1974KHb (38710)	1646
*****									
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
Ag+	gl	KNO3	25°C	0.10M	U	K1=4.10	B2=7.36	1976GPd (38999)	1647
*****									
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
Ag+	gl	KCl	25°C	.058M	U T	K1=4.86		1961SMa (39505)	1648
K1=5.24(0 C), 4.60(45 C)									
*****									
C5H10		L				Pent-2-ene		CAS 109-68-2	(3020)
Pent-2-ene; CH3.CH2.CH:CH.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	KNO3	25°C	1.0M	U	K1=1.80		1938WLa (39620)	1649

\*\*\*\*\*  
 C5H10N2O2 HL CAS 2762-32-5 (3041)  
 Piperazine-2-carboxylic acid; C4H9N2.COOH

-----  

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KCl	22°C	0.10M	U			K1=3.5	1960REb (39719)	1650

 -----

C5H10N2O2S L CAS 29061-28-7 (2621)  
 4,5-Dimethoxyimidazolidine-2-thione;

-----  

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE mixed		25°C	82%	U			K1=7.51 B2=10.41 B3=11.92	1980TBa (39726)	1651

 -----

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

C5H10N3S L (6654)  
 1,4,5-Trimethyl-1,2,4-triazolium-3-thiol;

-----  

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	KNO3	23°C	0.10M	U			K1= 7.31 B2=10.81 B3=12.84 B(Ag2L3)=22.26 B(Ag3L4)=31.94	1991TEa (40124)	1652

 -----

Data also for Ag complexes with other subst. 1,2,4-triazolium-3-thiolates  
 \*\*\*\*\*

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
Ag+	sol	KNO3	25°C	0.10M	U			K1=1.15	1949KAb (40141)	1653

 -----

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
Ag+	sol	KNO3	25°C	0.10M	U			K1=0.70	1949KAb (40143)	1654

 -----

C5H10O HL CAS 821-09-0 (64)  
 Pent-4-en-1-ol; CH2:CH.CH2.CH2.CH2.OH

-----  

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	NaClO4	25°C	1.0M	U	TIH		K1=1.962 B2=2.30	1977HSa (40145)	1655

 By temp coeff., DH1=-26.3 kJ mol<sup>-1</sup>, DS1=-50 J K<sup>-1</sup> mol<sup>-1</sup>, also in MeOH etc  
 \*\*\*\*\*

C5H10O L (3603)  
cis-1-Ethoxypropene; CH<sub>3</sub>.CH<sub>2</sub>O.CH:CH.CH<sub>3</sub>

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+		dis non-aq	30°C	100%		U T H		K1=0.41	1968FKb (40147)	1656
Medium: ethylene glycol. K1=0.60(10 C),0.50(20 C). DH(K1)=-16.3 kJ mol <sup>-1</sup> , DS=-45 J K <sup>-1</sup> mol <sup>-1</sup>										

\*\*\*\*\*

C5H10O L CAS 928-55-2 (3604)  
trans-1-Ethoxypropene; CH<sub>3</sub>.CH<sub>2</sub>O.CH:CH.CH<sub>3</sub>

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+		dis non-aq	30°C	100%		U T H		K1=-0.33	1968FKb (40148)	1657
Medium: ethylene glycol. K1=-0.17(10 C),-0.27(20 C); DH(K1)=-13.4 kJ mol <sup>-1</sup> , DS=-50.6 J K <sup>-1</sup> mol <sup>-1</sup>										

\*\*\*\*\*

C5H10O2S HL CAS 20600-60-6 (4322)  
(Propylthio)ethanoic acid; CH<sub>3</sub>.CH<sub>2</sub>.CH<sub>2</sub>.S.CH<sub>2</sub>.COOH

---

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+		ISE oth/un	25°C	0.10M		U		K1=3.94 B2=7.24	1968PSb (40235)	1658
Medium: Acetate buffer, I=0.2 M, K(Ag+HL)=3.18										

\*\*\*\*\*

C5H11N L CAS 1003-03-8 (304)  
Cyclopentylamine;

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

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Ag+		gl KCl	25°C	0.10M		U		K1=3.61 B2=7.83	1980HAA (40391)	1659
-----	--	--------	------	-------	--	---	--	-----------------	-----------------	------

\*\*\*\*\*

C5H11N L Piperidine CAS 110-89-4 (105)  
Perhydropyridine; cyclo(-CH<sub>2</sub>.CH<sub>2</sub>.CH<sub>2</sub>.NH.CH<sub>2</sub>.CH<sub>2</sub>-) C5H11N

---

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

---

Ag+		ISE non-aq	25°C	100%		C H		K1=3.11 B2=6.05	1987CBa (40431)	1660
DH1= -26.30 kJ mol <sup>-1</sup> , DH(K2)= -34.10 DS1= -28.0, DS(K2) = -58.6.										
Ag/AgCl electrode in DMSO										

---

Ag+		cal KNO <sub>3</sub>	25°C	0.50M		C H			1975EBa (40432)	1661
DH(K1)=-22.0 kJ mol <sup>-1</sup> , DS(K1)=-14 J K <sup>-1</sup> mol <sup>-1</sup> .										
DH(B2)=-50.21, DS(B2)=-45.2.										

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Ag+		EMF KNO <sub>3</sub>	25°C	0.50M		U		K1=3.20 B2=6.43	1973BBa (40433)	1662
-----	--	----------------------	------	-------	--	---	--	-----------------	-----------------	------

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Ag+		ISE non-aq	?	100%		U		B2=10.97	1965MMA (40434)	1663
Medium: acetone, 0.1 M NaClO <sub>4</sub>										

-----  
 Ag+ ISE alc/w 25°C 90% U I B2=7.10 1963PLa (40435)1664  
 Medium: 90% MeOH. B2=6.68(0%),6.70(20%),6.88(40%),6.92(50%,60%),7.04(80%)  
 -----

Ag+ gl KNO3 25°C 0.50M U K1=3.16 B2=6.61 1950BJa (40436)1665  
 -----

Ag+ gl KNO3 25°C 0.50M U K1=3.03 B2=6.48 1948BVa (40437)1666  
 -----

Ag+ ISE alc/w 25°C 50% U B2=6.45 1934LAb (40438)1667  
 Medium: 50 mole % EtOH  
 \*\*\*\*\*

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
Ag+	EMF	KNO3	25°C	0.10M	C		K1=3.7 K(AgL+H)=7.6 K(AgHL+H)=3.3	1979BCb (40653)	1668

Method: Ag electrode.  
 -----

Ag+ gl KNO3 20°C 0.5M U K1=3.29 B2=7.31 1974KHb (40654)1669  
 \*\*\*\*\*

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
Ag+	ISE	KNO3	25°C	0.10M	C	T	K1=3.08 B2=6.27	1975IPb (40820)	1670

Glass electrode also used.  
 \*\*\*\*\*

C5H11NO2 HL CAS 660-88-8 (1845)  
 5-Aminopentanoic acid; H2N.CH2.CH2.CH2.CH2.COOH  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	15°C	0.50M	U T		K1=3.66 B2=7.61	1970PTa (40856)	1671

K1(0 C)=4.01, K1(40 C)=3.31, B2(0 C)=8.09, B2(40 C)=6.85  
 -----

Ag+ gl KNO3 20°C 0.50M U K1=3.5 B2=7.41 1968ALc (40857)1672  
 By Ag/AgCl ISE: B2=7.51  
 -----

Ag+ gl KNO3 25°C 0.50M U K1=3.56 B2=7.35 1968TPb (40858)1673  
 \*\*\*\*\*

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
Ag+	EMF	KNO3	25°C	0.50M	C		K1=4.8 B2= 7.88	1984TSb (41046)	1674

K(Ag+H2L)=3.11  
 K(Ag+HL)=3.37  
 K(Ag+2H2L)=5.40  
 K(Ag+H2L+HL)=5.88

Method: Ag electrode. K(Ag+2HL)=5.88, K(Ag+HL+L)=7.38, B(Ag2L2)=13.49,  
 B(Ag2L)=7.46.

Ag+	ISE	KNO3	25°C	0.10M	C	K1=5.22 B(AgHL)=12.28 B(AgH2L2)=24.2	1981PSb (41047)	1675
Ag+	gl	oth/un	30°C	0.10M	U	K1=3.29 B2=5.38	1981PUa (41048)	1676
Ag+	ISE	KNO3	30°C	0.10M	U	K1=4.9 B2=7.60	1977PUa (41049)	1677
Ag+	ISE	oth/un	25°C	0.60M	U	K1=6.45?	1967AMb (41050)	1678
Ag+	gl	KNO3	25°C	0.10M	U	K1=3.17	1964LMa (41051)	1679
*****								
C5H11NO2S		HL				CAS 2442-39-9	(8307)	
3-(2-Aminoethyl)thiopropionic acid;								

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	KNO3	25°C	0.50M	C		K1=5.1 B2= 9.61 K(Ag+H2L)=2.36 K(Ag+HL)=2.78 K(Ag+2H2L)=3.77 K(Ag+H2L+HL)=4.45	1984TSb (41140)	1680

Method: Ag electrode. K(Ag+2HL)=4.64, K(Ag+HL+L)=8.17, B(Ag2L2)=13.5,  
 B(Ag2L)=7.61.

\*\*\*\*\*  
 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
Ag+	gl	KNO3	25°C	0.10M	U		K(Ag+HL)=12.42	1964LMa (41241)	1681
*****									
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
Ag+	EMF	KNO3	25°C	0.50M	C		K1=5.18 B2= 9.77 K(Ag+H2L)=1.57 K(Ag+HL)=2.88 K(Ag+2H2L)=3.4 K(Ag+H2L+HL)=4.49	1984TSb (41291)	1682

Method: Ag electrode.  $K(\text{Ag}+2\text{HL})=4.53$ ,  $K(\text{Ag}+\text{HL}+\text{L})=8.01$ ,  $B(\text{Ag}2\text{L}2)=13.65$ ,  
 $B(\text{Ag}2\text{L})=7.46$ .

\*\*\*\*\*

C5H11NS2 HL CAS 147-84-2 (2126)

Diethyldithiocarbamic acid;  $(\text{CH}_3.\text{CH}_2)_2\text{N}.\text{CSSH}$

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

Ag+	ISE mixed	25°C	64%	U	I		B2=19.47	1982BGc (41334)	1683	
Medium: 64% DMSO/H2O. Data for other ratios and solvents										

Ag+	EMF alc/w	25°C	75%	U			K1=9.00	1972BSe (41335)	1684	
Medium: 75% MeOH, 0.01 M KNO3										

Ag+	EMF diox/w	?	75%	U			K1=9.75	1971BSg (41336)	1685
-----	------------	---	-----	---	--	--	---------	-----------------	------

Ag+	ISE diox/w	25°C	75%	U			K1=8.3	1968BSc (41337)	1686	
Medium: 75% dioxan, 0.01 M KNO3										

Ag+	sp	non-aq	?	100%	U	M		1968SRg (41338)	1687	
$K(\text{AgHA}+\text{HL}=\text{AgL}+\text{H}_2\text{A})=2.58$										

Medium: CCl4. H2A=dithizone.

\*\*\*\*\*

C5H12N2S L CAS 2782-91-4 (6088)

N,N,N',N'-Tetramethylthiourea;  $(\text{CH}_3)_2\text{N}.\text{CS}.\text{N}(\text{CH}_3)_2$

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

Ag+	EMF alc/w	25°C	100%	M	T	H	K1=4.49	B2=9.08	1994MGa (41625)	1688
B3=12.37										

Medium: EtOH, 0-40 C.  $\text{DH}(\text{K}_1)=-30 \text{ kJ mol}^{-1}$ ,  $\text{DS}=-17 \text{ J K}^{-1} \text{ mol}^{-1}$ ;  $\text{DH}(\text{B}_2)=-26$ ,  
 $\text{DS}=+85$ ;  $\text{DH}(\text{B}_3)=-39$ ,  $\text{DS}=+106$ . Method: Ag elect. Other alkyl-thioureas also

Ag+	ISE KNO3	23°C	0.10M	U			K1= 5.63	B2=10.16	1991TEa (41626)	1689
B3=12.93										

Ag+	EMF alc/w	25°C	100%	M	T	H	K1=6.39	B2=9.70	1990MMf (41627)	1690
B3=12.58										

Medium: MeOH, 0-40 C.  $\text{DH}(\text{K}_1)=-33.8 \text{ kJ mol}^{-1}$ ,  $\text{DS}=+9 \text{ J K}^{-1} \text{ mol}^{-1}$ ;  $\text{DH}(\text{B}_2)=-32.4$   
 $\text{DS}=+77$ ;  $\text{DH}(\text{B}_3)=-32$ ,  $\text{DS}=+133$ . Method: Ag electrode

\*\*\*\*\*

C5H12O3S HL (4330)

Monothiopentaerythritol;  $(\text{HS}.\text{CH}_2)\text{C}(\text{CH}_2.\text{OH})_3$

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

Ag+	ISE KNO3	20°C	0.10M	U			K1=13	1971TSa (41649)	1691	
$K(10\text{Ag}+9\text{L}=\text{Ag}10\text{L}9)=175.4$										
$K(2\text{Ag}+\text{L})=19.0$										

\*\*\*\*\*



C5H12O3S4                      H3L                      CAS 19872-38-9 (4331)  
2,3-Dimercaptopropylthioethanesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	sp	oth/un	?	?	U				1971EPd (41651)	1692
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K(2Ag+L)=35.5

\*\*\*\*\*  
C5H12O4S3                      H3L                      CAS 19872-36-7 (4332)  
2,3-Dimercaptopropanoxyethanesulfonic acid; HS.CH2.CH(SH).CH2.O.CH2.CH2.HSO3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	sp	oth/un	?	?	U				1971EPd (41665)	1693
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B(Ag2L)=36.7

\*\*\*\*\*  
C5H12O5S4                      H3L                      CAS 35617-14-2 (4333)  
2,3-Dimercaptopropanesulfonethanesulfonic acid; HS.CH2.CH(SH).CH2.SO2.CH2CH2.HSO3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	sp	oth/un	?	?	U				1971EPd (41696)	1694
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B(Ag2L)=36.6

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C5H13N                      L                      1-Pentylamine                      CAS 110-58-7 (3613)  
1-Pentylamine; CH3.CH2.CH2.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	cal	R4N.X	25°C	0.05M	C	H			2002BSd (41709)	1695
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Medium: propylene carbonate, 0.05 M Et4NClO4. DH(K1)=-54.5.

Ag+	gl	none	25°C	0.00	M			K1=3.69    B2=7.76	1971HTa (41710)	1696
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Ag+	gl	KN03	20°C	0.50M	U			K1=3.55    B2=7.70	1968ALc (41711)	1697
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By Ag/AgCl ISE: B2=7.67

\*\*\*\*\*  
C5H13N                      L                      CAS 616-24-0 (5502)  
3-Aminopentane CH3.CH2.CH(NH2).CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	oth/un	25°C	0.50M	U			K1=3.53    B2=7.73	1983HNa (41715)	1698
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Medium: 0.1 M LHN03

\*\*\*\*\*  
C5H13N                      L                      CAS 616-39-7 (5641)  
N,N-Diethylmethylaniline; (C2H5)2N.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ gl KNO3 25°C 1.00M U K1=2.175 B2=3.86 1993GYa (41718)1699  
\*\*\*\*\*

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  
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Ag+ gl KNO3 20°C 0.50M U K1=3.42 B2=7.55 1968ALc (41726)1700  
By Ag/AgCl ISE: B2=7.55

\*\*\*\*\*  
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  
-----

Ag+ gl KNO3 25°C 0.50M U K1=2.32 B2=5.34 1972PEa (41730)1701  
\*\*\*\*\*

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  
-----

Ag+ gl alc/w 25°C 50% U K1=2.77 B2=5.21 1955ANc (41742)1702  
Medium: 50 mole % EtOH

\*\*\*\*\*  
C5H13NO3S HL CAS 37043-68-8 (4341)  
5-Aminopentanesulfonic acid; H2N.CH2.CH2.CH2.CH2.CH2.SO3H

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

Ag+ gl KNO3 25°C 0.50M U K1=3.49 B2=7.40 1972PTa (41745)1703  
\*\*\*\*\*

C5H13NS L (1217)  
1-Amino-3-thiahexane; H2N.CH2.CH2.S.CH2.CH2.CH3

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

Ag+ gl KNO3 25°C 0.50M U K1=5.29 B2=9.70 1977TGa (41773)1704  
B(2Ag+L)=7.40  
B(2Ag+2L)=13.59  
B(Ag+HL)=2.95  
B(Ag+L+HL)=8.08

B(Ag+2HL)=4.61

-----  
Ag+ cal KNO3 25°C 0.50M C H 1977TGc (41774)1705  
DH(Ag+HL)=-31.4 kJ mol<sup>-1</sup>, DH(Ag+2HL)=-59.0, DH(Ag+HL+L)=-77.8,  
DH(B2)=-84.5, DH(2Ag+2L)=-130, DH(2Ag+L)=-72.8.

\*\*\*\*\*  
C5H13NS L CAS 93243-37-9 (1221)  
1-Dimethylamino-3-thiabutane; (CH3)2N.CH2.CH2.S.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.50M	U		K1=4.30 B2=8.42 B(2Ag+L)=5.96 B(2Ag+2L)=11.37 B(Ag+HL)=2.52 B(Ag+HL+L)=6.68	1977TGa (41777)	1706
B(Ag+2HL)=3.84									

Ag+	cal	KNO3	25°C	0.50M	C	H		1977TGc (41778)	1707
DH(Ag+HL)=-26.4 kJ mol <sup>-1</sup> , DH(Ag+2HL)=-52.34, DH(Ag+HL+L)=-66.1, DH(B2)=-69.5, DH(2Ag+2L)=-90.4, DH(2Ag+L)=-61.9.									
*****									
C5H13NS		HL					(5870)		
3-(Dimethylamino)-1-propanethiol; (Me) <sub>2</sub> N.CH <sub>2</sub> .CH <sub>2</sub> .CH <sub>2</sub> .SH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	10%	C			1990GVa (41781)	1708
							B(6,3)=61.4 B(6,4)=77.35 B(8,6)=113.85 B(7,6)=109.10		
B(10,9)=162.64, B(12,12)=209.22, B(5,6)=91.31, B(4,6)=77.41, B(1,3)=21.35. In 10% v/v methanol/H <sub>2</sub> O, 0.10 M NaNO <sub>3</sub> . B(p,q): pAg+qHL=(Ag)p(HL)q									
*****									
C5H13OPS2		HL					CAS 1000-64-2 (4339)		
O-Butyl hydrogen-P-methylphosphonodithioate;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	90%	U		B2=16.14	1971TCa (41808)	1709
Medium: 90% EtOH, 0.3 M NaClO <sub>4</sub>									
*****									
C5H14N2		L					CAS 462-94-2 (359)		
1,5-Diaminopentane; H <sub>2</sub> N.(CH <sub>2</sub> ) <sub>5</sub> .NH <sub>2</sub>									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	1.0M	C		K1=6.22 B2= 8.33 K(Ag+HL)=3.33 K(Ag+2HL)=7.58 K(AgL2+2H)=21.69 B(Ag2L2)=15.05	1999GYa (41860)	1710
Additional method: Ag/Ag <sub>2</sub> S electrode. B(AgHL)=14.55, B(AgHL <sub>2</sub> )=20.08, B(AgH <sub>2</sub> L <sub>2</sub> )=30.02, B(Ag <sub>2</sub> HL <sub>2</sub> )=23.58.									
*****									
Ag+	ISE	alc/w	25°C	100%	U	H	K1=6.74	1985BUB (41861)	1711
Medium: MeOH, 0.05M Et <sub>4</sub> NC <sub>10</sub> 4. DH=-58.4 kJ mol <sup>-1</sup>									



Ag+ gl KNO3 25°C 0.50M C B2=9.83 1984SGe (41925)1718  
 K(Ag+H2L)=2.30  
 K(Ag+2H2L)=3.17  
 K(Ag+HL)=4.52  
 K(2Ag+2HL)=12.10

Additional method: Ag electrode. K(2Ag+HL+L)=14.87, B(Ag2L2)=16.75,  
 K(Ag+H2L+HL)=6.9, K(Ag+2HL)=8.72, K(Ag+HL+L)=9.50, B(Ag2L)=10.0.

-----  
 Ag+ cal KNO3 25°C 0.50M C H 1984STc (41926)1719  
 DH(Ag+H2L)=-28 kJ mol<sup>-1</sup>, DS(Ag+H2L)=-50 J K<sup>-1</sup> mol<sup>-1</sup>; DH(Ag+2H2L)=-56,  
 DS(Ag+2H2L)=-127; DH(2Ag+2L)=-139.2, DS=-146; DH(B2)=-79.6, DS(B2)=-79.  
 \*\*\*\*\*  
 C5H15N3 L CAS 34066-95-0 (1066)  
 1,4,7-Triazaooctane; H2N.CH2.CH2.NH.CH2.CH2.NH.CH3

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	NaNO3	25°C	1.30M	C		B2=7.87	1984YMa (41978)	1720
							B(AgH2L)=20.56, B(AgHL)=13.77		
							B(AgH2L2)=27.33, B(AgHL2)=17.75		
							B(Ag2H2L2)=30.04, B(Ag2L2)=14.4		
							B(Ag2HL2)=22.33, B(Ag3L2)=16.74		

B(AgH-1L)=-6.10. Measured using glass and Ag electrodes

\*\*\*\*\*  
 C6H3N3O7 HL Picric acid CAS 88-89-1 (593)  
 2,4,6-Trinitrophenol; HO.C6H2(NO2)3

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	none	25°C	dil	C	M	K1=0.45	2004KUa (42081)	1721
							K(AgA+L)=2.75		
							K(AgB+L)=3.20		
							K(AgC+L)=2.28		
							K(AgD+L)=2.20		

Method: Ag ion-selective electrode; self medium. A is 15-crown-5 ether,  
 B is benzo-15-crown-5, C is 18-crown-6, D is benzo-18-crown-6 ether.

-----  
 Ag+ con mixed 25°C 20% C K1=2.38 1994SSb (42082)1722  
 Medium:20% w/w propylene carbonate/ethylene carbonate.

\*\*\*\*\*  
 C6H4Br2 L p-Dibromobenzen CAS 106-37-6 (3056)  
 1,4-Dibromobenzene; Br.C6H4.Br

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sol	oth/un	25°C	?	U		K1=-0.21 B2=-0.81	1950AKa (42166)	1723
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\*\*\*\*\*  
 C6H4Cl2 L CAS 106-46-7 (2405)  
 1,4-Dichlorobenzene; Cl.C6H4.Cl

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	non-aq	25°C	100%	U		K1=-0.377	1991PZa (42167)	1724
Ag+	sol	oth/un	25°C	?	U		K1=-0.46	1950AKa (42168)	1725
*****									
C6H4I2		L						o-Diiodobenzene CAS 615-42-9	(3058)
1,2-Di-iodobenzene; I.C6H4.I									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	?	U		K1=0.76 B2=1.22	1951AKb (42170)	1726
*****									
C6H4I2		L						m-Diiodobenzene CAS 626-00-6	(3057)
1,3-Di-iodobenzene; I.C6H4.I									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	?	U		K1=1.22 B2=1.40	1951AKb (42171)	1727
*****									
C6H4I2		L						p-Diiodobenzene CAS 624-38-4	(3059)
1,4-Di-iodobenzene; I.C6H4.I									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	?	U		K1=0.88 B2=1.25	1950AKa (42172)	1728
*****									
C6H4N2		L						CAS 100-54-9	(3055)
3-Cyanopyridine (nicotinonitrile); C5H4N.CN									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	->0	U		B2=2.90	1955MBc (42184)	1729
*****									
C6H4N2		L						CAS 100-48-1	(321)
4-Cyanopyridine; C5H4N.CN									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	NaNO3	25°C	0.50M	C		K1=0.81	1984ERa (42190)	1730
Ag+	ISE	oth/un	25°C	->0	U		B2=3.08	1955MBc (42191)	1731
*****									
C6H5Br		L						Bromobenzene CAS 108-86-1	(3061)
Bromobenzene; C6H5.Br									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	?	U		K1=-0.01 B2=-0.93	1950AKa (42334)	1732
*****									

C6H5Cl                      L      Chlorobenzene      CAS 108-90-7    (3060)  
Chlorobenzene; C6H5.Cl

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	?	U		K1=-0.16    B2=-2.11	1950AKa (42335)	1733

\*\*\*\*\*

C6H5F                      L      Fluorobenzene      CAS 462-06-6    (3063)  
Fluorobenzene; C6H5.F

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	?	U		K1=-0.34    B2=-0.96	1950AKa (42339)	1734

\*\*\*\*\*

C6H5I                      L      Iodobenzene      CAS 591-50-4    (3062)  
Iodobenzene; C6H5.I

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	?	U		K1=0.70    B2=0.61	1950AKa (42340)	1735

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C6H5NO2                      HL      Picolinic acid      CAS 98-98-6    (391)  
2-Pyridine-carboxylic acid; C5H4N.CO0H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	non-aq	25°C	100%	U		K1=1.56    B2=2.73	1994IGa (42466)	1736

Medium: MeCN, 0.1 M Et4NClO4. Method: Ag electrode

Ag+	gl	KNO3	25°C	0.10M	U		K1=3.51    B2=6.10	1993IGa (42467)	1737
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Ag+	EMF	KNO3	25°C	0.10M	C		K1=3.5                      1979BCb (42468)	1738
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K(AgL+H)=4.1

Method: Ag electrode.

Ag+	gl	NaNO3	20°C	0.10M	U		K1=3.40    B2=5.9	1960ANb (42469)	1739
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Ag+	gl	oth/un	25°C	0.0	U		K1=3.24	1958LUa (42470)	1740
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C6H5NO2                      HL      Nicotinic acid      CAS 59-67-6    (419)  
3-Pyridine-carboxylic acid; C5H4N.CO0H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	2.00M	C		K1=2.39    B2=4.14	1981LZa (42657)	1741

\*\*\*\*\*

C6H5NO2                      L      Nitrobenzene      CAS 98-95-3    (3085)  
Nitrobenzene; C6H5.NO2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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 Ag+ sol oth/un 25°C ? U K1=-0.72 1950AKa (42700)1742  
 \*\*\*\*\*

C6H6 L Benzene CAS 71-43-2 (2143)  
 Benzene, cyclohexatriene;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sp	non-aq	20°C	100%		U T H	K1=1.66	1964TJa (43162)	1743
Medium: benzene, ClO4-. K1=1.04(1.4C); DH(K1)=16.7 kJ mol-1									

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Ag+	sol	alc/w	25°C	50%		U T H	K1=0.04	19560Aa (43163)	1744
Medium: 50% MeOH. DH(K1)=-12.0 kJ mol-1, DS=-39.3. 1.6 C: K1=0.22									

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Ag+ sol oth/un 5°C ? U K1=0.38 B2=1.05 1949AKa (43164)1745  
 \*\*\*\*\*

C6H6NBr L o-Bromoaniline CAS 615-36-1 (3091)  
 2-Bromoaniline (1-amino-2-bromobenzene); Br.C6H4.NH2  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	mixed	25°C	59%		U	B2=2.8	1952FYa (43171)	1746
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C6H6NBr L 3-Bromoaniline CAS 591-19-5 (758)  
 3-Bromoaniline; H2N.C6H4.Br  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	mixed	25°C	59%		U	B2=2.8	1952FYa (43175)	1747
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C6H6NBr L 4-Bromoaniline CAS 106-40-1 (757)  
 4-Bromoaniline; H2N.C6H4.Br  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	mixed	25°C	59%		U	B2=2.75	1952FYa (43183)	1748
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C6H6NCl L o-Chloroaniline CAS 95-51-2 (3088)  
 2-Chloroaniline (1-amino-2-chlorobenzene); Cl.C6H4.NH2  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	alc/w	25°C	100%		U	B2=1.71	1960ALa (43197)	1749
Medium: EtOH									

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Ag+	oth	alc/w	25°C	59%		U	B2=2.50	1952FYa (43198)	1750
Medium :59% w/w EtOH									

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C6H6NCl L m-Chloroaniline CAS 108-42-9 (3089)  
 3-Chloroaniline; Cl.C6H4.NH2



Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	U		B2=2.13	1960ALa (43200)	1751
Medium: EtOH									
Ag+	ISE	alc/w	25°C	59%	U		B2=2.55	1952FYa (43201)	1752
*****									
C6H6NC1		L				p-Chloroaniline	CAS 106-47-8	(3090)	
4-Chloroaminobenzene; Cl.C6H4.NH2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	U		B2=2.65	1960ALa (43213)	1753
Medium: EtOH									
Ag+	ISE	mixed	25°C	59%	U		B2=2.5	1952FYa (43214)	1754
*****									
C6H6NI		L				4-Iodoaniline	CAS 540-37-4	(3689)	
4-Iodoaniline; I.C6H4.NH2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	U		B2=2.50	1960ALa (43216)	1755
Medium: EtOH									
*****									
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
Ag+	ISE	none	25°C	0.0	U		K1=3.01	1955MBc (43257)	1756
*****									
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
Ag+	ISE	KNO3	25°C	0.50M	U		K1=1.67 B2=3.06	1985KLa (43334)	1757
Simultaneous measurement of Ag+ and H+									
Ag+	ISE	alc/w	25°C	50%	U		B2=3.11	1980BTb (43335)	1758
Ag+	ISE	none	25°C	0.0	U		K1=3.22	1955MBc (43336)	1759
*****									
C6H6N2O2		L				o-Nitroaniline	CAS 88-74-4	(463)	
2-Nitroaminobenzene; H2N.C6H4.NO2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

Ag+ oth alc/w 25°C 59% U B2=1.9 1952FYa (43360)1760  
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C6H6N2O2 L m-Nitroaniline CAS 99-09-2 (464)  
 3-Nitroaminobenzene; H2N.C6H4.NO2

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

Ag+ ISE alc/w 25°C 100% U B2=1.88 1960ALa (43383)1761  
 Medium: EtOH

-----  
 Ag+ ISE alc/w 25°C 50% U B2=1.7 1954LAa (43384)1762  
 Medium: EtOH, 50 mole%

-----  
 Ag+ oth alc/w 25°C 50% U B2=1.7 1952FYa (43385)1763  
 \*\*\*\*\*

C6H6N2O2 L p-Nitroaniline CAS 100-01-6 (465)  
 4-Nitroaminobenzene; H2N.C6H4.NO2

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

Ag+ ISE alc/w 25°C 100% U B2=1.55 1960ALa (43400)1764  
 Medium: EtOH

-----  
 Ag+ ISE alc/w 25°C 50% U B2=1.6 1954LAa (43401)1765  
 Medium: 50 mol % EtOH

-----  
 Ag+ oth alc/w 25°C 50% U B2=1.7 1952FYa (43402)1766  
 Medium: 50 mol % EtOH  
 \*\*\*\*\*

C6H6O HL Phenol CAS 108-95-2 (457)  
 Hydroxybenzene, phenol; C6H5.OH

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

Ag+ dis KNO3 25°C 1.0M U K1=0.34 1938WLa (43532)1767  
 \*\*\*\*\*

C6H6O3S HL CAS 98-11-3 (3087)  
 Benzenesulfonic acid; C6H5.SO3H

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

Ag+ ISE NaClO4 25°C 1.0M U K1=-0.04 1958ACb (44132)1768  
 \*\*\*\*\*

C6H7N L Picoline CAS 109-06-8 (320)  
 2-Methylpyridine; C5H4N.CH3

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

Ag+ ISE KNO3 25°C 0.50M U K1=2.33 B2=4.66 1972FHb (44580)1769  
 -----

Ag+ ISE alc/w 25°C 96% U K1=2.45 B2=4.93 1972MTb (44581)1770  
Medium: 96% EtOH, 0.1 M NaClO4

Ag+ gl KNO3 25°C 0.61M U K1=2.36 B2=4.71 1967SBd (44582)1771

Ag+ ISE mixed 25°C 90% U I B2=5.48 1965PLa (44583)1772  
Medium: 90% acetone. B2=4.61(0%), 4.58(10%), 4.55(20%), 4.54(30%), 4.55(40%),  
4.60(50%), 4.67(60%), 4.78(70%), 5.00(80%)

Ag+ ISE diox/w 25°C 90% U I B2=5.09 1965PLa (44584)1773  
Medium: 90% dioxan. B2=4.53(10%), 4.48(20%), 4.44(30%), 4.43(40%), 4.46(50%), 4.52  
(60%), 4.64(70%), 4.82(80%). In EtOH: B2=4.69(10%), 4.36(50%), 4.49(90%)

Ag+ gl KNO3 25°C 0.50M U K1=2.27 B2=4.68 1964PCa (44585)1774  
dlogB2/dt=-0.002

Ag+ sp alc/w 20°C 100% U I B2=4.68 1958PPa (44586)1775  
Medium: EtOH. In MeCN: B2=4.45

\*\*\*\*\*  
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

Ag+ ISE KNO3 25°C 0.50M U K1=2.25 B2=4.48 1972Fhb (44665)1776

Ag+ ISE alc/w 25°C 96% U K1=2.40 B2=4.82 1972MTc (44666)1777  
Medium: 96% EtOH, 0.1 M NaClO4

Ag+ gl KNO3 25°C 0.61M U K1=2.15 B2=4.44 1967SBd (44667)1778

Ag+ ISE alc/w 25°C 90% U I B2=4.34 1965PMa (44668)1779  
Medium: 0-90% EtOH. B2=4.36(0%), 4.41(10%), 4.40(20%), 4.35(30%), 4.27(40%),  
4.19(50%), 4.14(60%), 4.17(70%), 4.24(80%)

Ag+ sp alc/w 20°C 100% U I B2=5.23 1958PPa (44669)1780  
Medium: EtOH. In MeCN: B2=4.99

Ag+ gl oth/un 25°C ->0 U K1=2.00 B2=4.35 1955MBc (44670)1781

\*\*\*\*\*  
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

Ag+ ISE NaNO3 25°C 50% U I B2=4.53 1973BNd (44779)1782  
Medium: 0-96% (v/v) EtOH, 0.2 M LiNO3. B2(0%)=4.75, B2(96%)=4.74  
In 0.2 LiNO3, 0-90% acetone, B2(25%)=4.69, B2(75%)=4.84, B2(90%)=4.95

Ag+ ISE NaNO3 25°C 50% U I B2=4.36 1973BNd (44780)1783

Medium: 0-90% (v/v) PrOH, 0.2 M LiNO<sub>3</sub>. B<sub>2</sub>(0%)=4.75, B<sub>2</sub>(90%)=4.58

-----  
Ag+ ISE KNO<sub>3</sub> 25°C 0.50M U K<sub>1</sub>=2.18 B<sub>2</sub>=4.64 1972FHB (44781)1784  
-----

Ag+ ISE alc/w 25°C 96% U K<sub>1</sub>=2.45 B<sub>2</sub>=4.91 1972MTb (44782)1785  
Medium: 96% EtOH, 0.1 M NaClO<sub>4</sub>  
-----

Ag+ gl KNO<sub>3</sub> 25°C 0.61M U K<sub>1</sub>=2.21 B<sub>2</sub>=4.70 1967SBd (44783)1786  
-----

Ag+ ISE alc/w 25°C 90% U I B<sub>2</sub>=4.41 1965PMa (44784)1787  
Medium: 90% EtOH. B<sub>2</sub>=4.49(0%), 4.57(10%), 4.53(20%), 4.46(30%), 4.37(40%),  
4.29(50%), 4.24(60%), 4.25(70%), 4.31(80%)  
-----

Ag+ sp alc/w 20°C 100% U I B<sub>2</sub>=5.05 1958PPa (44785)1788  
Medium: EtOH. In MeCN: B<sub>2</sub>=4.79  
-----

Ag+ gl oth/un 25°C ->0 U K<sub>1</sub>=2.03 B<sub>2</sub>=4.39 1955MBc (44786)1789  
-----

Ag+ gl KNO<sub>3</sub> 25°C 0.50M U K<sub>1</sub>=2.24 B<sub>2</sub>=4.70 1948BVa (44787)1790  
dlogB<sub>2</sub>/dt=0.020  
\*\*\*\*\*

C<sub>6</sub>H<sub>7</sub>N L Aniline CAS 62-53-3 (583)  
Aminobenzene, aniline; C<sub>6</sub>H<sub>5</sub>.NH<sub>2</sub>  
-----

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

Ag+ ISE alc/w 25°C 100% U B<sub>2</sub>=3.07 1960ALa (44857)1791  
B<sub>3</sub>=3.53  
Medium: EtOH  
-----

Ag+ gl alc/w 25°C 50% U K<sub>1</sub>=1.38 B<sub>2</sub>=2.88 1955ANc (44858)1792  
Medium: 50 mole % EtOH  
-----

Ag+ gl alc/w ? 59% U B<sub>2</sub>=3.0 1952FYa (44859)1793  
Medium: 59% w/w EtOH  
-----

Ag+ dis KNO<sub>3</sub> 25°C 1.0M U K<sub>1</sub>=1.44 1952G0a (44860)1794  
-----

Ag+ ISE oth/un 17°C 0.20M U B<sub>2</sub>=3.47 1936BWa (44861)1795  
-----

Ag+ ISE alc/w 25°C 50% U B<sub>2</sub>=3.17 1934LAb (44862)1796  
Medium: 50 mole % EtOH  
-----

Ag+ ISE oth/un 20°C 0.10M U B<sub>2</sub>=3.23 1924PAa (44863)1797  
\*\*\*\*\*

C<sub>6</sub>H<sub>7</sub>NO L CAS 586-98-1 (3094)  
2-Hydroxymethylpyridine (2-pyridylmethanol); C<sub>5</sub>H<sub>4</sub>N.CH<sub>2</sub>.OH  
-----

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

Ag+ gl KNO3 25°C 0.61M U K1=2.14 B2=4.37 1967SBd (44961)1798  
\*\*\*\*\*

C6H7NO L Pyridylcarbinol CAS 100-55-0 (2036)  
3-(Hydroxymethyl)azine; C5H4N.CH2OH

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

Ag+ gl KNO3 25°C 0.61M U K1=2.01 B2=4.09 1967SBd (44981)1799  
\*\*\*\*\*

C6H7NO L CAS 7295-76-3 (3095)  
3-Methoxypyridine; C5H4N.OCH3

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

Ag+ ISE none 25°C 0.0 U K1=1.58 B2=3.67 1955MBc (44991)1800  
\*\*\*\*\*

C6H7NO L CAS 586-95-8 (1476)  
4-(Hydroxymethyl)pyridine; C5H4N.CH2OH

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

Ag+ ISE KNO3 25°C 0.50M U K1=1.816 B2=3.887 1987KLa (45004)1801  
-----

Ag+ ISE KNO3 25°C 0.50M U K1=2.20 B2=4.26 1985KLa (45005)1802  
Simultaneous measurement of Ag+ and H+

-----  
Ag+ gl KNO3 25°C 0.61M U K1=2.15 B2=4.23 1967SBd (45006)1803  
\*\*\*\*\*

C6H7NO L CAS 620-08-6 (3096)  
4-Methoxypyridine; C5H4N.OCH3

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

Ag+ ISE none 25°C 0.0 U K1=2.28 B2=4.44 1955MBc (45015)1804  
\*\*\*\*\*

C6H7NO3S HL Sulfanilic CAS 121-57-3 (2865)  
4-Aminobenzenesulfonic acid; H2N.C6H4.SO3H

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

Ag+ ISE NaClO4 25°C 1.0M U K1=1.03 B2=1.67 1958ACb (45066)1805  
K3=0.40  
K4=-0.1

-----  
Ag+ ISE NaClO4 25°C 0.10M U K1=1.14 B2=2.09 1958ACb (45067)1806  
\*\*\*\*\*

C6H7NO3S HL Metanilic acid (3121)  
Aniline-3-sulfonic acid; H2N.C6H4.SO3H

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

-----  
 Ag+ ISE NaClO4 25°C 1.0M U K1=1.23 B2=2.13 1958ACb (45068)1807  
 K3=0.18  
 K4=0.11  
 -----

\*\*\*\*\*

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
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Ag+	ISE	alc/w	25°C	var	U	I	K1=7.67	1986BBa (45122)	1808
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In 0.07 mol EtOH/H2O, 0.1 M NaNO3(NaClO4). Ag-electrode  
 In 0.79 mol K1=6.41; In 0.79 mol DMFA/H2O: K1=5.61. Data also for DMSO  
 -----

\*\*\*\*\*

C6H8N2 L CAS 123-32-0 (2532)  
 2,5-Dimethylpyrazine, 2,5-Dimethyl-1,4-diazine; C4H2N2(CH3)2  
 -----

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

-----

Ag+	gl	KNO3	25°C	0.10M	U	H	K1=1.96 B2=3.13	1974HEa (45284)	1809
-----	----	------	------	-------	---	---	-----------------	-----------------	------

DH(K1)=-21.67 and DH(B2)=-39.96 kJ mol-1.  
 -----

\*\*\*\*\*

C6H8N2 L CAS 108-50-9 (2531)  
 2,6-Dimethylpyrazine, 2,6-Dimethyl-1,4-diazine; C4H2N2(CH3)2  
 -----

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

-----

Ag+	gl	KNO3	25°C	0.10M	U	H	K1=1.95 B2=3.46	1974HEa (45286)	1810
-----	----	------	------	-------	---	---	-----------------	-----------------	------

DH(K1)=-20.92 and DH(B2)=-31.84 kJ mol-1.  
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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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

-----

Ag+	gl	KNO3	25°C	0.0	U		K1=3.588 B2=7.174	1974GEa (45333)	1811
-----	----	------	------	-----	---	--	-------------------	-----------------	------

B(Ag2L)=5.37  
 B(Ag2L2)=11.223  
 B(AgHL)=9.982  
 -----

Ag+	EMF	NaNO3	20°C	0.10M	U		K1=4.11	1971ANa (45334)	1812
-----	-----	-------	------	-------	---	--	---------	-----------------	------

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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
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Ag+	gl	KNO3	25°C	0.61M	U		K1=2.42 B2=4.85	1967SBd (45363)	1813
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C6H8N2 L CAS 695-34-1 (1501)  
 -----

2-Amino-4-methylpyridine; H2N.C5H4N.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KN03	25°C	0.50M	U		K1=2.47 B2=4.931	1987KLa (45365)	1814
*****									
C6H8N2		L					CAS 1603-41-4	(1500)	
2-Amino-5-methylpyridine; H2N.C5H4N.CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KN03	25°C	0.50M	U		K1=2.04 B2=4.726	1987KLa (45367)	1815
*****									
C6H8N2		L					CAS 2851-95-8	(4349)	
2-Methyl-1-vinylimidazole;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KN03	25°C	1.00M	U		K1=3.48 B2=7.01	1969NNa (45373)	1816
*****									
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
Ag+	ISE	oth/un	25°C	0.10M	M		K1=2.086	1975IPa (45461)	1817
Medium: CH3COOK									
*****									
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
Ag+	ISE	KN03	25°C	0.10M	U		K1=3.66	1964NMc (45611)	1818
*****									
C6H8O6S		H3L					CAS 99-68-3	(3692)	
(Carboxymethylthio)butanedioic acid; HOOC.CH(S.CH2.COOH).CH2.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KN03	20°C	0.10M	U		K1=3.52	1977CAd (45682)	1819
*****									
C6H8O7		H3L		Citric acid			CAS 77-92-9	(95)	
2-Hydroxypropane-1,2,3-tricarboxylic acid; HOOCCH2.CH(OH)(COOH).CH2COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	20°C	0.0	U	H		1959DMb (45923)	1820
							B(Ag2L)=7.1		
							B(Ag3L2)=9.9		

DH(Ag2L)=-66.1 kJ mol<sup>-1</sup>, DS=-89

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Ag+ sol oth/un 25°C 0.0 U 1958PSa (45924)1821

Kso=-12.2

\*\*\*\*\*

C6H9NO6 H3L NTA CAS 139-13-9 (191)

Nitrilotriethanoic acid; N(CH<sub>2</sub>.COOH)<sub>3</sub>

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

-----  
Ag+ gl KNO3 25°C 1.00M C K1=4.29 1992ANa (46600)1822

-----  
Ag+ ISE NaClO4 25°C 1.00M U I K1=4.11 1989MIa (46601)1823

-----  
Ag+ ISE KNO3 25°C 0.10M C H K1=4.67 1981SCa (46602)1824

By calorimetry: DH(K1)=-26.2 kJ mol<sup>-1</sup>, DS=1.2

-----  
Ag+ dis NaClO4 20°C 0.10M U T K1=5.16 1963STc (46603)1825

\*\*\*\*\*

C6H9N3 L (1483)

2-Amino-4,6-dimethyl-1,3-diazine; C<sub>4</sub>H<sub>9</sub>N<sub>2</sub>(NH<sub>2</sub>)(CH<sub>3</sub>)<sub>2</sub>

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

-----  
Ag+ ISE KNO3 25°C 0.50M U K1=2.26 B2=6.19 1986KLa (47142)1826

\*\*\*\*\*

C6H9N3O2 HL Histidine CAS 71-00-1 (1)

2-Amino-3-(4'-imidazolyl)propanoic acid; H<sub>2</sub>N.CH(CH<sub>2</sub>.C<sub>3</sub>H<sub>3</sub>N<sub>2</sub>)COOH

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

-----  
Ag+ gl KNO3 25°C 0.5M U K1=2.30 B2= 3.05 2002LKa (47455)1827  
K(AgL+H)=6.93

-----  
Ag+ gl oth/un 30°C 0.10M U K1=5.42 B2=8.44 1981PUa (47456)1828

-----  
Ag+ gl KCl 25°C .058M U T K1=6.45 1961SMa (47457)1829

K1=8.50(0 C), 4.60(45 C)

-----  
Ag+ ISE oth/un ? .162M U K1=7.37 B2=16.27 1953VAa (47458)1830

At I=0.01 M, by spectrophotometry, B(Ag2L)=2.12

\*\*\*\*\*

C6H10 L CAS 693-89-0 (3641)

1-Methylcyclopentene; C<sub>5</sub>H<sub>7</sub>.CH<sub>3</sub>

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

-----  
Ag+ dis non-aq 30°C 100% U K1=0.46 1962GHa (47663)1831

Medium: ethylene glycol, 1.77 M AgNO<sub>3</sub>. Method: gas chromatography

\*\*\*\*\*



C6H10 L CAS 1120-62-3 (3642)  
3-Methylcyclopentene; C5H7.CH3

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

Ag+ dis non-aq 30°C 100% U K1=1.08 1962GHa (47664)1832  
Medium: ethylene glycol, 1.77 M AgNO3. Method: gas chromatography

\*\*\*\*\*

C6H10 L CAS 1759-81-5 (3643)  
4-Methylcyclopentene; C5H7.CH3

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

Ag+ dis non-aq 30°C 100% U K1=0.74 1962GHa (47665)1833  
Medium: ethylene glycol, 1.77 M AgNO3. Method: gas chromatography

\*\*\*\*\*

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

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

Ag+ nmr non-aq 30°C 100% U K1=0.58 1973DBa (47666)1834  
Medium: CH3CN

-----  
Ag+ dis KNO3 0°C 1.0M U K1=2.28 1938WLa (47667)1835

\*\*\*\*\*

C6H10 L CAS 1528-30-9 (3644)  
Methylenecyclopentane; CH2:C5H8

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

Ag+ dis non-aq 30°C 100% U K1=0.78 1962GHa (47670)1836  
Medium: ethylene glycol, 1.77 M AgNO3. Method: gas chromatography

\*\*\*\*\*

C6H10N2 L CAS 931-36-2 (1419)  
2-Ethyl-4-methyl-1,3-diazole; C3H2N2(CH3)(C2H5)

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

Ag+ gl KNO3 25°C 1.00M U K1=3.64 B2=7.74 1969NNa (47682)1837

\*\*\*\*\*

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  
-----

Ag+ ISE alc/w 25°C 20% C T H K1=3.86 B2=5.90 1977PGb (47688)1838

\*\*\*\*\*

C6H10N2O3S H2L CAS 60197-98-0 (1858)  
2-(4-Sulfonyl)-pyrrylmethyl-methylamine; HO3S.C4H3N.CH2.NH.CH3

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        gl  KNO3    25°C 1.00M C                        1978SAa (47711)1839
                                     K(Ag+HL)=2.6
                                     K(AgHL+HL)=2.96
Various assumptions and stability constants
*****
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
-----
Ag+        gl  KCl     22°C 0.10M U                        K1=3.0      1964PCa (47725)1840
*****
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
-----
Ag+        gl  KCl     22°C 0.10M U                        K1=4.4      1964PCa (47743)1841
*****
C6H10N4         L      Metrazole      CAS 54-95-5 (2046)
1,5-Pentamethylenetetrazole, 6,7,8,9-Tetrahydro-5H-tetrazoloazepine;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE KNO3    25°C 0.50M U                        K1=1.51    B2=2.76    1976LWa (47876)1842
-----
Ag+        ISE KNO3    25°C 0.10M U I                        1969DPc (47877)1843
                                     B(Ag+2L)=3.05
I=0.4 M, B(AgL2)=3.00
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-----
Ag+        gl  non-aq 25°C 100% U                        B2=0.47      1959PHa (47878)1844
Medium: CH3CN
*****
C6H10N4O5      L                        (6141)
2,4-Dimethyl-2,4,6,8-tetraazobicyclo(3,3,0)octa-3-one-7-thione;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE mixed 25°C 82% U                        K1=7.70    B2=10.45    1980TBa (47883)1845
                                     B3=12.11
Medium: 82% v/v DMFA/H2O; 0.2 M KNO3
*****
C6H10O2         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
-----

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Ag+ ISE oth/un 25°C 0.10M M K1=2.057 1975IPa (47951)1846  
Medium: K-acetate

\*\*\*\*\*

C6H1002S HL CAS 29431-24-1 (4369)

(But-1-enylthio)ethanoic acid; CH<sub>2</sub>:CH.CH<sub>2</sub>.CH<sub>2</sub>.S.CH<sub>2</sub>.COOH

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

Ag+ ISE oth/un 25°C 0.20M U T H K1=4.77 B2=7.02 1971BFb (47954)1847

K(Ag+HL)=4.157

K(Ag+2HL)=6.37

B(Ag2L)=6.83

0.6 C, K1=5.49, B2=9.00. 39 C, K1=4.25. DH(K1)=-46.1 kJ mol<sup>-1</sup>, DH(K2)=-80

-----  
Ag+ ISE oth/un 25°C 0.10M U I K1=4.80 B2=7.05 1968PSb (47955)1848

In acetate buffer, I=0.2 M, K(Ag+HL)=4.16

\*\*\*\*\*

C6H1002Se HL (4371)

(But-1-enylseleno)ethanoic acid; CH<sub>2</sub>:CH.CH<sub>2</sub>.CH<sub>2</sub>.Se.CH<sub>2</sub>.COOH

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

Ag+ ISE oth/un 25°C 0.20M U T H K1=5.16 B2=7.96 1971BFb (47978)1849

K(Ag+HL)=4.75

K(Ag+2HL)=7.54

K(2Ag+HL)=6.85

B(Ag2L)=7.13

0.9 C: K1=6.04, B2=10.00. 39 C: K1=4.77. DH(K1)=-54.5 kJ mol<sup>-1</sup>, DH(K2)=-101

\*\*\*\*\*

C6H1004S H2L CAS 42715-54-8 (986)

2,2'-Thiodipropanoic acid; HOOC.CH(CH<sub>3</sub>).S.CH(CH<sub>3</sub>).COOH

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

Ag+ gl KNO<sub>3</sub> 25°C 0.10M C K1=3.81 B2=6.02 1975LPa (48123)1850

K(Ag+HL)=3.15

K(Ag+H2L)=2.74

\*\*\*\*\*

C6H1004S H2L CAS 111-17-1 (139)

3,3'-Thiodipropanoic acid; HOOC.CH<sub>2</sub>.CH<sub>2</sub>.S.CH<sub>2</sub>.CH<sub>2</sub>.COOH

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

Ag+ EMF NaClO<sub>4</sub> 25°C 3.0M U K1=4.24 B2= 7.02 1985HIa (48167)1851

B(AgHL)=8.84

B(AgH2L)=12.83

B(AgH2L2)=17.01

B(AgH4L2)=24.55

Method: Ag/AgCl electrode.

-----

Ag+ gl KNO3 25°C 0.10M C I K1=3.85 1975LPa (48168)1852

K(Ag+HL)=3.34

K(Ag+H2L)=3.22

Also by ISE in 0.2 M acetate: K2 = 2.53; K(AgH2L+H2L) = 2.41

Ag+ ISE NaNO3 20°C 1.0M U K1=2.9 B2=6.7 1944LAa (48169)1853

\*\*\*\*\*

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

Ag+ gl NaClO4 25°C 0.50M U K1=5.82 B2=9.55 1981NAa (48226)1854

K(AgL+H)=3.80

K(AgL2+H)=4.18

K(AgHL2+H)=3.45

K(AgH2L2+H)=2.97

Ag+ ISE oth/un 25°C 0.20M U K1=4.95 1971FPa (48227)1855

B(Ag2L)=7.01

K(Ag+HL)=4.45

K(2Ag+HL)=6.16

K(Ag+2HL)=8.24

Medium: 0.2 M acetate buffer, pH 1.5 and 5.95

Ag+ ISE NaNO3 20°C 1.0M U K1=6.5 B2=10.4 1944LAa (48228)1856

\*\*\*\*\*

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

Ag+ EMF NaClO4 25°C 3.0M U 1985HIa (48265)1857

B(AgHL)=8.13

B(AgH2L)=11.59

Method: Ag/AgCl electrode.

\*\*\*\*\*

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

Ag+ gl KNO3 25°C 0.10M C K1=4.55 B2=6.92 1975LPa (48280)1858

K(Ag+HL)=3.72

K(Ag+H2L)=3.01

\*\*\*\*\*

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

-----  
Ag+            gl   KNO3    25°C 0.10M C   I            K1=4.5            1975LPa (48291)1859

K(Ag+HL)=4.32

K(Ag+H2L)=3.96

Also by ISE in 0.2 M acetate: K2 = 2.39; K(AgH2L+H2L) = 1.57

\*\*\*\*\*

C6H10O4Te                            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  
-----

Ag+            gl   KNO3    25°C 0.10M C            K1=6.28    B2=9.18    1975LPa (48302)1860

K(Ag+HL)=5.35

K(Ag+H2L)=4.97

K(AgH2L+H2L)=2.74

\*\*\*\*\*

C6H11N                            L                            CAS 124-02-7    (3651)

Di-allylamine; (CH2:CH.CH2)2NH

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

Ag+            oth non-aq    ?   100% U            B2=8.96            1965MMa (48494)1861

Method: coulometric titration. Medium: acetone, 0.1 M NaClO4

\*\*\*\*\*

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  
-----

Ag+            gl   KNO3    25°C 0.10M C            K1=3.81    B2=6.74    1975IPb (48510)1862

K(Ag+HL)=1.42

\*\*\*\*\*

C6H12                            L                            CAS 592-41-6    (2771)

1-Hexene; CH2:CH(CH2)3.CH3

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

Ag+            oth non-aq   30°C 100% U            K1=-0.07            1974KKb (49011)1863

Medium: N-Methylacetamide. In ethylene glycol, 40 C, K1=0.63

Method: gas chromatography.

\*\*\*\*\*

C6H12                            L                            CAS 760-21-4    (2772)

2-Ethyl-1-butene; CH2:C(C2H5).CH2.CH3

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

Ag+            oth non-aq   30°C 100% U            K1=-0.14            1974KKb (49014)1864

Medium: N-Methylacetamide. In ethylene glycol, 40 C, K1=0.54

Method: gas chromatography.

\*\*\*\*\*

C6H12 L CAS 763-29-1 (2770)  
2-Methyl-1-pentene; CH2:C(CH3).CH2.CH2.CH3

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

Ag+ oth non-aq 30°C 100% U K1=-0.30 1974KKb (49016)1865  
Medium: N-Methylacetamide. Method: gas chromatography.

\*\*\*\*\*

C6H12 L CAS 691-37-2 (2767)  
4-Methyl-1-pentene; CH2:CH.CH2.CH(CH3)2

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

Ag+ oth non-aq 30°C 100% U K1=-0.21 1974KKb (49018)1866  
Medium: N-Methylacetamide. In Ethylene glycol (40 C) K1=0.45  
Method: gas chromatography.

\*\*\*\*\*

C6H12 L CAS 7668-21-3 (2774)  
cis-2-Hexene; CH3.CH:CH.CH2.CH2.CH3

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

Ag+ oth non-aq 30°C 100% U K1=-0.21 1974KKb (49020)1867  
Medium: N-Methylacetamide. In ethylene glycol, 40 C, K1=0.49  
Method: gas chromatography.

\*\*\*\*\*

C6H12 L (2768)  
cis-4-Methyl-2-pentene; CH3.CH:CH.CH(CH3)2

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

Ag+ oth non-aq 30°C 100% U K1=-0.18 1974KKb (49022)1868  
Medium: N-Methylacetamide. In ethylene glycol, 40 C, K1=0.49  
Method: gas chromatography.

\*\*\*\*\*

C6H12 L CAS 4050-45-7 (2773)  
trans-2-Hexene; CH3.CH:CH.CH2.CH2.CH3

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

Ag+ oth non-aq 30°C 100% U K1=-0.69 1974KKb (49024)1869  
Medium: N-Methylacetamide. In ethylene glycol, 40 C, K1=-0.10  
Method: gas chromatography.

\*\*\*\*\*

C6H12 L CAS 4461-48-7 (2769)  
trans-4-Methyl-2-pentene; CH3.CH:CH.CH(CH3)2

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

Ag+ oth non-aq 30°C 100% U K1=-0.62 1974KKb (49026)1870

Medium: N-Methylacetamide. In ethylene glycol (40 C) K1=-0.15

Method: gas chromatography.

\*\*\*\*\*

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  
-----

Ag+ gl NaNO3 20°C 0.10M U K1=1.65 1950SMa (49041)1871

\*\*\*\*\*

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  
-----

Ag+ ISE NaClO4 25°C 0.10M U I K1=10.01 1968PHa (49050)1872

B(Ag2L3)=20.53

B(Ag3L4)=31.05

Medium: 0.1 M NaClO4 0.05 HClO4. With 0.01 M HClO4:K1=10.09, B(Ag2L3)=20.69,  
B(Ag3L4)=31.29

\*\*\*\*\*

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

Hexamethylenetetramine;

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

Ag+ ISE NaNO3 25°C 0.20M U I B2=3.49 1975BNa (49380)1873

Medium: LiNO3. In 50% EtOH B2=3.94; 50% PrOH B2=3.02, 50% Acetone B2=4.23

-----  
Ag+ sol oth/un 20°C 0.30M U 1967MGd (49381)1874

K(AgLC1O3+L=AgL2+C1O3)=3.65

K(AgLC1O3+2L=AgL3+C1O3)=3.10

Medium: ClO3-

-----  
Ag+ sol oth/un 20°C ? U K2=3.24 1963GYa (49382)1875

K3=2.89

-----  
Ag+ ISE oth/un 20°C 0.01M U T B2=3.58 1924PAa (49383)1876

At 16 C K1=3.50

\*\*\*\*\*

C6H12O L CAS 927-61-7 (3654)

1-Ethoxy-2-methylprop-1-ene; CH3.CH2O.CH:C(CH3)2

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

Ag+ dis non-aq 30°C 100% U T H K1=-0.77 1968FKb (49404)1877

Medium: ethylene glycol. Method: gas chromatog. K1=-0.57(10 C), -0.68(20 C)

DH(K1)=-14.6 kJ mol<sup>-1</sup>, DS=-50 J K<sup>-1</sup> mol<sup>-1</sup>

\*\*\*\*\*

C6H12O L Butylvinylether CAS 111-34-2 (3655)

Butoxyethene; CH<sub>3</sub>.CH<sub>2</sub>.CH<sub>2</sub>.CH<sub>2</sub>.O.CH:CH<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U T H			K1=0.75	1968FKb (49406)	1878
Medium: ethylene glycol. Method: gas chromatog. K1=0.94(10 C), 0.89(20 C)										
DH(K1)=-15.5 kJ mol <sup>-1</sup> , DS=-36.8 J K <sup>-1</sup> mol <sup>-1</sup>										
*****										
C6H12O		HL						CAS 821-41-0	(65)	
Hex-5-en-1-ol; CH <sub>2</sub> :CH.(CH <sub>2</sub> ) <sub>4</sub> .OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	NaClO <sub>4</sub>	25°C	1.0M	U TIH			K1=1.515 B2=1.19	1977HSa (49407)	1879
By temp coeff., DH1=-21.0 kJ mol <sup>-1</sup> , DS1=-42 J K <sup>-1</sup> mol <sup>-1</sup> , also in MeOH etc.										
*****										
C6H12O		L						(3656)		
Isobutyl vinyl ether; (CH <sub>3</sub> ) <sub>2</sub> .CH.CH <sub>2</sub> .O.CH:CH <sub>2</sub>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U T H			K1=0.75	1968FKb (49408)	1880
Medium: ethylene glycol. Method: gas chromatog. K1=0.94(10 C), 0.83(20 C)										
DH(K1)=-16.7 kJ mol <sup>-1</sup> , DS=41 J K <sup>-1</sup> mol <sup>-1</sup>										
*****										
C6H12O		L						CAS 4884-01-9	(3652)	
cis-1-Ethoxybutene; CH <sub>3</sub> .CH <sub>2</sub> O.CH:CH.CH <sub>2</sub> .CH <sub>3</sub>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U T H			K1=0.49	1968FKb (49409)	1881
Medium: ethylene glycol. Method: gas chromatog. K1=0.75(10 C), 0.63(20 C)										
DH(K1)=-17.6 kJ mol <sup>-1</sup> , DS=-50 J K <sup>-1</sup> mol <sup>-1</sup>										
*****										
C6H12O		L						CAS 1528-20-7	(3653)	
trans-1-Ethoxybutene; CH <sub>3</sub> .CH <sub>2</sub> O.CH:CH.CH <sub>2</sub> .CH <sub>3</sub>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U T H			K1=-0.20	1968FKb (49410)	1882
Medium: ethylene glycol. Method: gas chromatog. K1=-0.02(10 C), -0.14(20 C)										
DH(K1)=-13.8 kJ mol <sup>-1</sup> , DS=-50 J K <sup>-1</sup> mol <sup>-1</sup>										
*****										
C6H12O <sub>2</sub> S		HL						CAS 22683-64-3	(4376)	
(1-Methylpropylthio)ethanoic acid; CH <sub>3</sub> .CH <sub>2</sub> .CH(CH <sub>3</sub> ).S.CH <sub>2</sub> .COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U I			K1=4.16 B2=7.04	1968PSb (49435)	1883
In acetate buffer. I=0.2, K(Ag+HL)=3.34										



\*\*\*\*\*

C6H12O2S HL CAS 20600-61-7 (4375)  
(Butylthio)ethanoic acid; CH<sub>3</sub>.(CH<sub>2</sub>)<sub>3</sub>.S.CH<sub>2</sub>.COOH

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE oth/un 25°C 0.20M U T H K1=3.92 B2=6.70 1971BFb (49443)1884  
K(Ag+HL)=3.15  
K(Ag+2HL)=5.31  
K1(0.6 C)=4.37, B2=7.80. K1(39.1 C)=3.69, B2=6.04. DH(K1)=-28.5 kJ mol<sup>-1</sup>,  
DH(K2)=-30  
-----

Ag+ ISE oth/un 25°C 0.10M U I K1=3.95 B2=6.74 1968PSb (49444)1885  
In acetate buffer, I=0.2: K(Ag+HL)=3.16

\*\*\*\*\*

C6H12O2Se HL (4379)  
(Butylseleno)ethanoic acid; C<sub>4</sub>H<sub>9</sub>.Se.CH<sub>2</sub>.COOH

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE oth/un 25°C 0.20M U T H K1=4.58 B2=8.01 1971BFb (49454)1886  
K(Ag+HL)=3.81  
K(Ag+2HL)=6.69  
K1(0.8 C)=5.04, B2=8.87; K1(39 C)=4.28, B2=7.45. DH(K1)=-32.6 kJ mol<sup>-1</sup>,  
DH(K2)=-27  
-----

\*\*\*\*\*

C6H13N L 2-Pipecoline CAS 109-05-7 (1651)  
2-Methylpiperidine; C<sub>5</sub>H<sub>10</sub>N.CH<sub>3</sub>

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ cal KNO<sub>3</sub> 25°C 0.50M C H 1975EBa (49783)1887  
DH(K1)=-23.0 kJ mol<sup>-1</sup>, DS(K1)=-11 J K<sup>-1</sup> mol<sup>-1</sup>.  
DH(B2)=-51.76, DS(B2)=-41.  
-----

Ag+ EMF KNO<sub>3</sub> 25°C 0.50M U K1=3.53 B2=6.95 1973BBa (49784)1888

\*\*\*\*\*

C6H13N L 3-Pipecoline CAS 626-56-2 (1650)  
3-Methylpiperidine; C<sub>5</sub>H<sub>10</sub>N.CH<sub>3</sub>

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ cal KNO<sub>3</sub> 25°C 0.50M C H 1975EBa (49786)1889  
DH(K1)=-23.2 kJ mol<sup>-1</sup>, DS(K1)=-20 J K<sup>-1</sup> mol<sup>-1</sup>.  
DH(B2)=-50.92, DS(B2)=-47.7.  
-----

Ag+ EMF KNO<sub>3</sub> 25°C 0.50M U K1=3.20 B2=6.43 1973BBa (49787)1890

\*\*\*\*\*

C6H13N L 4-Pipecoline CAS 626-58-4 (1649)  
4-Methylpiperidine; C<sub>5</sub>H<sub>10</sub>N.CH<sub>3</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	cal	KNO3	25°C	0.50M	C	H			1975EBa (49789)	1891
DH(K1)=-22.6 kJ mol <sup>-1</sup> , DS(K1)=-14.4 J K <sup>-1</sup> mol <sup>-1</sup> . DH(B2)=-50.33, DS(B2)=-44.4.										
Ag+	EMF	KNO3	25°C	0.50M	U			K1=3.26 B2=6.49	1973BBa (49790)	1892
*****										
C6H13N		L						CAS 108-91-8	(314)	
Cyclohexylamine; C6H11.NH2										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KCl	25°C	0.10M	U			K1=3.72 B2=8.02	1980HAa (49800)	1893
*****										
C6H13N		L			MePiperidine			CAS 626-67-5	(1254)	
N-Methylpiperidine; C5H10N.CH3										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.50M	U			K1=2.64 B2=3.8	1973BBa (49809)	1894
*****										
C6H13NO		L						CAS 100-74-3	(3111)	
4-Ethylmorpholine; C4H8ON.CH2.CH3										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	50%	U			K1=2.07 B2=3.02	1955ANc (49816)	1895
Medium: 50 mole % EtOH/H2O										
*****										
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
Ag+	gl	KNO3	20°C	0.5M	U			K1=3.19 B2=7.26	1974KHb (49884)	1896
*****										
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
Ag+	gl	NaClO4	30°C	0.20M	U	T		K1=3.74 B2=7.20	1975JBb (50029)	1897
*****										
Ag+	gl	KNO3	20°C	0.5M	U			K1=3.41 B2=7.44	1974KHb (50030)	1898
*****										
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
Ag+	ISE	KNO3	25°C	0.10M	C		T	K1=3.21 B2=6.71	1975IPb	(50156)1899

Glass electrode also used.

Ag+	ISE	oth/un	25°C	0.60M	U		T	K1=3.48 B2=6.76	1967AMb	(50157)1900
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C6H13NO2 HL CAS 60-32-2 (1846)  
6-Aminohexanoic acid; H2N.CH2.CH2.CH2.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO3	15°C	0.50M	U	T		K1=3.69 B2=7.82	1970PTa	(50210)1901

K1(0 C)=3.97, K1(4 0C)=3.33, K2(0 C)=4.25, K2(40 C)=3.53

Ag+	gl	KNO3	20°C	0.50M	U			K1=3.6 B2=7.54	1968ALc	(50211)1902
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Using Ag-AgCl electrode: B2=7.65

Ag+	gl	KNO3	25°C	0.50M	U			K1=3.59 B2=7.54	1968TPb	(50212)1903
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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
Ag+	EMF	KNO3	25°C	0.50M	C			K1=5.1 B2= 8.34	1984TSb	(50258)1904

K(Ag+H2L)=3.44  
K(Ag+HL)=3.75  
K(Ag+2H2L)=5.94  
K(Ag+H2L+HL)=6.49

Method: Ag electrode. K(Ag+2HL)=6.37, K(Ag+HL+L)=8.04, B(Ag2L2)=14.09, B(Ag2L)=7.93.

Ag+	ISE	KNO3	25°C	0.10M	C			B2=9.66	1981PSb	(50259)1905
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B(AgHL)=12.71  
B(AgH2L2)=24.03

Ag+	gl	KNO3	25°C	0.10M	U			K1=5.25	1964LMa	(50260)1906
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C6H13NS HL CAS 1072-99-7 (284)  
1-Methyl-4-mercaptopyridine; C5H9N(CH3)(SH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	10%	C				1990GVa	(50544)1907

B(6,3)=63.67  
B(6,4)=79.95  
B(8,6)=117.37  
B(7,6)=111.72  
B(10,9)=166.01, B(12,12)=212.2, B(7,8)=128.52, B(6,8)=113.4, B(2,3)=36.67,

B(1,3)=20.71. In 10% methanol/H<sub>2</sub>O, 2.0 M NaNO<sub>3</sub>. B(p,q): pAg+qHL=(Ag)p(HL)q.  
 \*\*\*\*\*

C6H13NS<sub>2</sub> L (6801)  
 1,4-Dithia-7-azacyclononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	R4N.X	25°C	0.10M	M		K1=6.43 B2=12.03	1990CKb	(50547)1908

Medium: 0.1 M Me<sub>4</sub>NNO<sub>3</sub>

\*\*\*\*\*  
 C6H14N<sub>2</sub> L CAS 106-55-8 (3438)  
 2,5-Dimethylpiperazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO <sub>3</sub>	25°C	0.10M	C I		K1=3.60 B2=5.98	1974HBa	(50653)1909

for the cis-isomer  
 trans isomer: K1=3.48, B2=6.43  
 cis isomer. For trans isomer: K1=3.48, B2=6.43. In 52% EtOH, cis isomer:  
 K1=3.87, B2=6.48; trans isomer: 4.25, 6.31

\*\*\*\*\*  
 C6H14N<sub>2</sub> L CAS 108-49-6 (3437)  
 2,6-Dimethylpiperazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO <sub>3</sub>	25°C	0.10M	C I		K1=3.30 B2=6.66	1974HBa	(50654)1910

In 52% EtOH, K1=3.86; B2=6.90

\*\*\*\*\*  
 C6H14N<sub>2</sub> L CAS 25155-35-5 (2282)  
 N,N-Dimethylpiperazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO <sub>3</sub>	25°C	0.10M	C I		K1=2.20 B2=3.46	1974HBa	(50655)1911

In 52% EtOH, K1=2.55; B2=3.41

\*\*\*\*\*  
 C6H14N<sub>4</sub>O<sub>2</sub> HL Arginine CAS 74-79-3 (40)  
 2-Amino-5-guanidopentanoic acid; H<sub>2</sub>N.CH((CH<sub>2</sub>)<sub>3</sub>.NH.C(:NH)(NH<sub>2</sub>)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	oth/un	30°C	0.10M	U		K1=4.72 B2=6.94	1981PUa	(50987)1912
Ag+	gl	oth/un	17°C	?	U		K1=4.12 B2=8.07	1960PEd	(50988)1913
Ag+	gl	oth/un	30°C	.024M	U T H		K1=3.04 B2=6.66	1959DGa	(50989)1914

K1=3855.2/T-18.452+0.029208T  
 K2=4898.35/T-23.905+0.037321T  
 At 25C:DH(K1)=-24 kJ mol<sup>-1</sup>, DS=-20 J K<sup>-1</sup> mol<sup>-1</sup>; DH(K2)=-30, DS=32. At 0 C:

K1=3.65,K2=4.18;10 C:3.36,4.03;20 C:3.37,3.71;40 C: 3.02,3.32;50 C:2.91,3.36  
\*\*\*\*\*

C6H14O2S2 L CAS 5244-34-8 (4390)  
3,6-Dithiaoctan-1,8-diol; HO.CH2.CH2.S.CH2.CH2.S.CH2.CH2.OH

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

Ag+ ISE KNO3 20°C 1.00M U H 1970WSa (51037)1915  
pH=3 DH(K1)=-50.6 kJ mol-1, DS=-64.0 J K-1 mol-1  
DH(K2)=-55.6 kJ mol-1, DS=-100.4 J K-1 mol-1

\*\*\*\*\*

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  
-----

Ag+ ISE non-aq 25°C 100% U K1=2.03 B2=3.48 1983MMc (51135)1916  
B3=4.35  
B4=4.63

Medium: MeCN. Data also for other dialkyl sulfides

\*\*\*\*\*

C6H15N L CAS 37007-11-7 (4353)  
Diisopropylamine; ((CH3)2CH)2.NH

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

Ag+ gl oth/un 25°C 0.50M U K1=3.41 B2=6.73 1983HNa (51146)1917  
Medium: 0.1 M LHN03

-----  
Ag+ ISE R4N.X 25°C 2.00M U K1=3.00 B2=7.05 1969MPd (51147)1918  
Medium: NH4NO3

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C6H15N L Dipropylamine CAS 142-84-7 (3666)  
Dipropylamine, 4-azaheptane; (CH3.CH2.CH2)2.NH

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

Ag+ oth non-aq ? 100% U B2=10.05 1965MMa (51153)1919  
Method: coulometric titration. Medium: acetone, 0.1 M NaCl04

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C6H15N L Hexylamine CAS 111-26-2 (4352)  
Hexylamine; CH3.CH2.CH2.CH2.CH2.CH2.NH2

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ gl none 25°C 0.00 U K1=3.66 B2=7.83 1971HTa (51157)1920

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C6H15N L Triethylamine CAS 121-44-8 (1340)  
N,N,N-Triethylamine; (C2H5)3N

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	1.00M	U		K1=2.326 B2=4.29	1993GYa (51172)	1921
Ag+	oth	non-aq	23°C	100%	C		K2=0.41	1988SBa (51173)	1922
Medium: toluene, by I.R. spectroscopy.									
Ag+	gl	alc/w	25°C	50%	U		K1=2.31 B2=4.10	1955ANc (51174)	1923
Medium: 50 mol % EtOH									
Ag+	gl	oth/un	25°C	0.40M	U		K1=2.6 B2=4.7	1950BJa (51175)	1924
Medium: 0.4 C6H15N,HNO3									
Ag+	ISE	oth/un	15°C	0.30M	U		B2=4.50	1935BWa (51176)	1925
By solubility B2=4.27									
Ag+	ISE	oth/un	20°C	.001M	U		B2=4.05	1924PAa (51177)	1926
*****									
C6H15NO		L		CAS 4048-33-3		(4392)			
6-Amino-1-hexanol; NH2.CH2.CH2.CH2.CH2.CH2.OH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.50M	U		K1=3.33 B2=7.64	1972PEa (51182)	1927
*****									
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
Ag+	ISE	KNO3	25°C	2.00M	U		B2=4.85	1970UPa (51194)	1928
Ag+	sol	oth/un	20°C	0.0	U		B2=4.62	1961ALa (51195)	1929
By glass electrode: B2=4.66									
Ag+	gl	alc/w	25°C	50%	U		K1=2.60 B2=6.02	1955ANc (51196)	1930
Medium: 50% mol% EtOH									
*****									
C6H15NO2		L		CAS 14002-33-6		(3706)			
3,3'-Iminodipropanol; HO.CH2.CH2.CH2.NH.CH2.CH2.CH2.OH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	oth/un	20°C	0.0	U		K1=2.95 B2=5.71	1964AKb (51200)	1931
By solubility: B2=5.71									
*****									
C6H15NO3		Triethanolamine		CAS 102-71-6		(447)			
Tris-(2-hydroxyethyl)amine;									L
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

-----  
 Ag+ gl NaNO3 25°C 0.20M U K1=2.6 B2=4.2 1974UPa (51263)1932  
 Medium: LiNO3  
 -----

Ag+ gl alc/w 25°C 100% U K1=3.3 B2=5.6 1974UPa (51264)1933  
 B3 5.2  
 Medium: MeOH, 0.2 M LiNO3  
 -----

Ag+ gl alc/w 25°C 100% U K1=3.3 B2=5.1 1974UPa (51265)1934  
 B3 5.5  
 Medium: MeOH, 0.1 M LiNO3  
 -----

Ag+ gl oth/un ? 0.20M U K1=2.6 B2=4.7 1974UPb (51266)1935  
 Medium: DMF, 0.2 M LiNO3. In DMSO: K1=1.8, B2=3.0  
 -----

Ag+ ISE mixed 25°C 40% U I K1=3.08 B2=4.59 1973MPf (51267)1936  
 B3=5.08  
 Medium: 20-95% acetone, 0.4 M LiNO3  
 K1(20%)=2.89, B2(20%)=4.28, B2(95%)=5.72, B3(20%)=4.57, B3(95%)=6.50  
 -----

Ag+ ISE diox/w 25°C 40% U I K1=2.56 B2=4.28 1972MPc (51268)1937  
 B3=5.28  
 Medium: 20-70% dioxan, 0.4 M LiNO3  
 K1(20%)=2.49, B2(20%)=4.08, B2(70%)=5.04, B3(20%)=5.56, B3(70%)=5.95  
 -----

Ag+ gl KNO3 25°C 0.50M U K1=2.34 B2=4.09 1972PEa (51269)1938  
 -----

Ag+ ISE alc/w 25°C 20% U I M K1=2.90 B2=4.78 1965MPb (51270)1939  
 B3=5.15  
 Medium: EtOH, 0.4 m LiNO3. K1=2.78(0%), 3.00(40%); B2=4.54(0%), 4.93(40%), 5.2  
 (60%), 5.38(80%), 5.49(90%), 5.81(100%); B3=5.08(0%), 5.53(60%), 6.59(100%)  
 -----

Ag+ ISE oth/un 25°C 0.01M U B2=5.28 1961ALb (51271)1940  
 -----

Ag+ gl alc/w 25°C 50% U K1=2.72 B2=4.44 1955ANc (51272)1941  
 Medium: 50% mol% EtOH  
 -----

Ag+ gl KNO3 25°C 0.50M U K1=2.30 B2=3.64 1950BJa (51273)1942  
 \*\*\*\*\*  
 C6H15NS L CAS 22572-38-9 (1218)  
 1-Amino-3-thia-4,4-dimethylbutane; H2N.CH2.CH2.S.C(CH3)3  
 -----

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

Ag+ gl KNO3 25°C 0.50M U K1=5.27 B2=9.99 1977TGa (51345)1943  
 B(2Ag+L)=7.88  
 B(2Ag+2L)=14.17  
 B(Ag+HL)=3.35  
 B(Ag+HL+L)=8.41

B(Ag+2HL)=4.99

-----  
 Ag+ cal KNO3 25°C 0.50M C H 1977TGc (51346)1944  
 DH(Ag+HL)=-35.1 kJ mol<sup>-1</sup>, DH(Ag+2HL)=-61.38, DH(Ag+HL+L)=-74.9,  
 DH(B2)=-82.4, DH(2Ag+2L)=-131, DH(2Ag+L)=-69.5.  
 \*\*\*\*\*

C6H15N3 L CAS 26150-46-9 (149)  
 1,3,5-cis,cis-Triaminocyclohexane; C6H9.(NH2)3  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	NaNO3	20°C	0.10M	U				1962BSb (51370)1945	
								K(Ag+HL)=5.3		
								K(AgL+H)=8.8		
								K(AgL+Ag)=2.4		

-----

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
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Ag+	ISE	R4N.X	22°C	0.10M	U	I		K1=4.97 B2=7.90	1994GRa (51397)1946	
Medium: Et4NClO4. In CH3CN: K1=5.78; K2=5.53. Method: Ag-electrode										

-----

C6H15O2PS2 HL (2059)  
 O,O'-Dipropyl dithiophosphoric acid; (C3H7O)2P(S)SH  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	ISE	alc/w	25°C	90%	U			B2=15.55	1971TCa (51484)1947	
Medium: 90% EtOH, 0.3 M NaClO4										

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C6H15O2PS2 HL CAS 25134-38-7 (4401)  
 Phosphorodithioic acid O,O-diisopropyl ester; (CH3.CH(CH3)O)2PS.SH  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	ISE	alc/w	25°C	90%	U			B2=15.80	1971TCa (51497)1948	
Medium: 90% EtOH, 0.3 M NaClO4										

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C6H16N2 L (7148)  
 N,N',N'-Trimethyl-1,3-diaminopropane  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	ISE	KNO3	25°C	1.00M	C			K1=2.91 B2=5.52	1994GYa (51596)1949	
								B(AgHL)=12.20		
								B(Ag2L2)=9.61		

-----

C6H16N2 L Tetraameen 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
Ag+	EMF	non-aq	25°C	100%	C	H	K1=3.25 B2= 6.24	2002CNa (51639)	1950

Method: Ag electrode. Medium: DMSO, 0.10 M Et4NClO4. By calorimetry, DH(K1)=-30.8 kJ mol<sup>-1</sup>, DS(K1)=-41 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-69.3, DS(B2)=-113.

Ag+	gl	KNO3	25°C	1.0M	C		K1=2.97 B2=5.48	1994GYb (51640)	1951
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B(AgHL)=10.25

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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
Ag+	gl	none	20°C	0.0	U T H		K1=8.42	1959LBb (51670)	1952

K1=8.80(10 C), 8.12(30 C), 7.71(40 C). DH(K1)=-60.2 kJ mol<sup>-1</sup>, DS=-46

\*\*\*\*\*

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
Ag+	ISE	R4N.X	25°C	0.05M	U	H	K1=15.42	2002BSd (51694)	1953

Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M Et4NClO4. By calorimetry: DH(K1)=-106.7 kJ mol<sup>-1</sup>, DS(K1)=-64.1 J K<sup>-1</sup> mol<sup>-1</sup>

Ag+	ISE	alc/w	25°C	100%	U	H	K1=9.59	1985BUb (51695)	1954
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Medium: MeOH, 0.05M Et4NClO4. DH(K1)=-58.3 kJ mol<sup>-1</sup>

Ag+	ISE	R4N.X	25°C	0.10M	U	I	K1=7.70	1983CSa (51696)	1955
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Also data for 0.05-1.0 mol fraction MeCN/H2O

Ag+	gl	R4N.X	25°C	0.10M	C	H	K1=7.7	1975ANa (51697)	1956
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From calorimetry: DH1=-57.5 kJ mol<sup>-1</sup>, DS1=-45.6

Ag+	gl	oth/un	20°C	->0	U T H		K1=8.04	1959LBb (51698)	1957
-----	----	--------	------	-----	-------	--	---------	-----------------	------

DH(K1)=-55.2 kJ mol<sup>-1</sup>, DS=-33 J K<sup>-1</sup> mol<sup>-1</sup>. K1=8.33(10 C), 7.71(30 C), 7.41(40C)

\*\*\*\*\*

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
Ag+	gl	KNO3	25°C	0.50M	C		B2=9.86	1984SGe (51719)	1958

K(Ag+H2L)=2.62  
K(Ag+2H2L)=3.70  
K(Ag+HL)=4.82  
K(2Ag+2HL)=12.5

Additional method: Ag electrode. K(2Ag+HL+L)=15.77, B(Ag2L2)=17.20,

K(Ag+H2L+HL)=7.31, K(Ag+2HL)=9.08, K(Ag+HL+L)=9.86, B(Ag2L)=10.26.

-----  
Ag+ cal KNO3 25°C 0.50M C H 1984STc (51720)1959  
DH(Ag+H2L)=-30.1 kJ mol<sup>-1</sup>, DS(Ag+H2L)=-51 J K<sup>-1</sup> mol<sup>-1</sup>; DH(Ag+2H2L)=-61,  
DS(Ag+2H2L)=-134; DH(2Ag+2L)=-140, DS=-140; DH(B2)=-79.8, DS(B2)=-79.

\*\*\*\*\*

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

-----  
Ag+ gl KNO3 25°C 0.50M C 1984SGe (51723)1960  
K(Ag+H2L)=3.04  
K(Ag+2H2L)=4.48

Additional method: Ag electrode.

-----  
Ag+ cal KNO3 25°C 0.50M C H 1984STc (51724)1961  
DH(Ag+H2L)=-31.8 kJ mol<sup>-1</sup>, DS(Ag+H2L)=-48 J K<sup>-1</sup> mol<sup>-1</sup>; DH(Ag+2H2L)=-64.8,  
DS(Ag+2H2L)=-132.

\*\*\*\*\*

C6H16N2S2 L (3120)  
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

-----  
Ag+ ISE alc/w 25°C 100% U H K1=10.06 1985BUb (51754)1962  
Medium: MeOH, 0.05M Et4NClO4. DH=-64.9 kJ mol<sup>-1</sup>

-----  
Ag+ gl NaClO4 25°C 0.10M U K1=8.34 1977ASg (51755)1963  
B(AgHL)=15.32

-----  
Ag+ gl KNO3 30°C 1.0M U K1=5.08 1951G0a (51756)1964

\*\*\*\*\*

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

-----  
Ag+ ISE non-aq 25°C 100% C H K1=7.08 1989CDa (51888)1965  
B(Ag2L)=9.98  
B(Ag3L2)=20.64

Medium: DMSO. DH(K1)=-68.3 kJ mol<sup>-1</sup>; DS=-94. DH(Ag2L)=-99.2; DS=-142.  
DH(Ag3L2)=-216.2; DS=-330

-----  
Ag+ gl KNO3 40°C 1.00M C T H 1974DFa (51889)1966  
B(Ag2L2)=8.04

DH(Ag2L2)=-15.6 kJ mol<sup>-1</sup> (40 C). At 25 C: B(Ag2L2)=8.59 (by polarography)  
35 C: 8.25; 45 C: 7.87

\*\*\*\*\*

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
Ag+	EMF	NaNO3	25°C	1.3M	C			K1=5.35 B2= 7.83 B(AgHL)=13.68 B(AgHL2)=17.74 B(AgH2L2)=27.13 B(Ag2L2)=13.75	1983YMb	(51909)1967

Ag electrode. B(Ag3L2)=15.33, B(AgH-1L)=-6.35

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
Ag+	ISE	NaNO3	25°C	1.30M	C			B2=7.74 B(AgH2L)=25.99, B(AgHL)=13.18 B(AgH2L2)=25.99, B(Ag2L2)=13.84 B(Ag2H2L2)=28.41 B(Ag2HL2)=20.86, B(Ag3L2)=15.35	1984YMa	(51916)1968

B(AgH-1L)=-5.96 Measured using glass and Ag electrodes

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
Ag+	ISE	non-aq	?	100%	U	I		B3=6.17	1972LUa	(51974)1969

Medium: acetone. In C2H5NO2, B3=8.8. In MeOH, K1=-0.2, B2=0.2

Ag+	ISE	non-aq	25°C	100%	U			K1=0.30 B2=0.34 B3=0.30	1972LUa	(51975)1970
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Medium: CH3CN. In 2-butanol: K1=0.68, B2=0.97, B3=0.30, B4=1.48. In MeOH: K1=-0.2, B2=0.2. In sulfolane: 0.1 Et4NClO4, K1=4.04, B2=4.30, B3=5.20

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
Ag+	ISE	non-aq	25°C	100%	C	H		K1=10.32	1990CBd	(52062)1971

Medium: DMSO, 0.1 M R4NX. DH(K1)=-91.5 kJ mol<sup>-1</sup>, DS=109 J K<sup>-1</sup> mol<sup>-1</sup> (calor.)

Ag+	ISE	alc/w	25°C	100%	U	H		K1=10.12	1985BUb	(52063)1972
-----	-----	-------	------	------	---	---	--	----------	---------	-------------

Medium: MeOH, 0.05M Et4NClO4. DH=-69.4 kJ mol<sup>-1</sup>

Ag+	EMF	non-aq	25°C	100%	U			K1=5.30	1979SZa	(52064)1973
-----	-----	--------	------	------	---	--	--	---------	---------	-------------

Medium: DMSO



## Benzimidazole; C7H6N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	KNO3	25°C	0.50M	U		K1=3.1 B2=6.25	1979BBa (53459)	1981
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C7H6O2 HL Benzoic Acid CAS 65-85-0 (462)

Benzenecarboxylic acid; C6H5.CO0H

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

Ag+	con	alc/w	35°C	0%	C I		K1=1.40	1989MSh (53803)	1982
-----	-----	-------	------	----	-----	--	---------	-----------------	------

Data for 0-60% w/w MeOH/H2O. In 60%, K1=1.88.

Ag+	sol	none	25°C	0.0	C T H			1976DRa (53804)	1983
-----	-----	------	------	-----	-------	--	--	-----------------	------

Kso(AgL)=-4.137

Medium: 0.0001-0.0075 M NaCl04. Data for 20-35 C. At 20 C, Kso(AgL)=-4.145

DH(Kso)=31.79 kJ mol<sup>-1</sup>, DS(Kso)=28.29 J K<sup>-1</sup> mol<sup>-1</sup>.

Ag+	ISE	NaCl04	30°C	1.0M	U		K1=3.4 B2=4.2	1967VSb (53805)	1984
-----	-----	--------	------	------	---	--	---------------	-----------------	------

Ag+	ISE	NaCl04	25°C	1.0M	U I		K1=0.519 B2=0.56	1949LEa (53806)	1985
-----	-----	--------	------	------	-----	--	------------------	-----------------	------

At I=0, K1=0.914; I=0.2 K1=0.602

\*\*\*\*\*

C7H7Cl L p-Chlorotoluene CAS 95-49-8 (3130)

2-Chlorotoluene; Cl.C6H4.CH3

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

Ag+	sol	oth/un	25°C	0.50M	U		K1=0.77	19560Aa (55107)	1986
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C7H7N L CAS 100-69-6 (299)

2-Vinylpyridine; C5H4N.CH:CH2

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

Ag+	gl	KNO3	25°C	0.10M	U		K1=1.75 B2=3.55	1974ILa (55114)	1987
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C7H7N L CAS 100-43-6 (294)

4-Vinylpyridine; C5H4N.CH:CH2

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

Ag+	gl	KNO3	25°C	0.10M	U		K1=1.98 B2=4.08	1974ILa (55122)	1988
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C7H7NO L CAS 350-03-8 (1479)

3-Acetylpyridine; C5H4N.CO.CH3

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

Ag+ ISE KNO3 25°C 0.50M U K1=1.696 B2=3.117 1987KLa (55137)1989  
\*\*\*\*\*

C7H7NO2 HL Anthranilic CAS 118-92-3 (1589)  
2-Aminobenzoic acid, Anthranilic acid; H2N.C6H4.COOH

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

Ag+ gl oth/un 25°C ->0 U K1=1.86 1958LUa (55197)1990  
\*\*\*\*\*

C7H7NO2 HL CAS 3222-47-7 (3154)  
6-Methylpyridine-2-carboxylic acid; CH3.C5H3N.COOH

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

Ag+ gl NaNO3 20°C 0.10M U K1=3.85 B2=7.00 1960ANb (55420)1991  
\*\*\*\*\*

C7H7NO2 L CAS 2549-09-8 (3153)  
Methyl isonicotinate; C5H4N.CO.OCH3

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

Ag+ ISE oth/un 25°C ->0 U B2=2.45 1955MBc (55529)1992  
\*\*\*\*\*

C7H7NO2 L Me-Nicotinate CAS 92-60-7 (3152)  
Methyl nicotinate; C5H4N.CO.OCH3

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

Ag+ ISE oth/un 25°C ->0 U B2=2.99 1955MBc (55530)1993  
\*\*\*\*\*

C7H8 L CAS 108-88-3 (2144)  
Toluene; C6H5.CH3

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

Ag+ sp non-aq 20°C 100% U T H K1=3.97 1964TJa (55779)1994  
Medium: toluene,C104-. K1=2.67(1.4 C); DH(K1)=14.2 kJ mol-1

-----  
Ag+ sol oth/un 25°C 0.50M U T H K1=0.08 19560Aa (55780)1995  
DH(K1)=-11.4 kJ mol-1, DS=-36.7 J K-1 mol-1. K1=0.25(1.6 C)

-----  
Ag+ sol NaClO4 25°C 1.0M U K1=0.42 1952AKa (55781)1996  
-----

Ag+ sol KNO3 25°C 1.0M U K1=0.47 B2=1.14 1949AKa (55782)1997  
\*\*\*\*\*

C7H8N2O L Benzhydrazide CAS 613-94-5 (2565)  
Benzoic acid hydrazide; C6H5.CO.NH.NH2

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

Ag+ ISE alc/w 25°C var U I K1=7.40 1986BBa (55833)1998  
 In 0.07 mol parts EtOH/H2O, 0.1 M NaNO3(NaClO4); Ag-electrode.  
 In 0.79 mol EtOH K1=6.47; In 0.79 mol DMFA/H2O: K1=5.62. Data also for DMSO  
 \*\*\*\*\*

C7H8N2O L CAS 19547-38-7 (1474)  
 Pyridine-2-carboxylic acid N-methylamide, Picolinic acid N-methylamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.50M	U		K1=1.52 B2=3.18	1985KLa (55840)	1999

Simultaneous measurement of Ag+ and H+

\*\*\*\*\*  
 C7H8N2O5 L CAS 3394-05-6 (3182)  
 N-3-Hydroxyphenylthiourea; HO.C6H4.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ix	KNO3	20°C	0.50M	U		K1=5.6	1958H0b (55850)	2000

\*\*\*\*\*  
 C7H8N2O2 L CAS 15513-52-7 (5516)  
 3-Nitro-2,6-dimethylpyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	NaNO3	25°C	0.50M	C		K1=1.12	1984ERa (55896)	2001

\*\*\*\*\*  
 C7H8N2S HL Phenylthiourea CAS 103-85-5 (625)  
 1-Phenyl-2-thiourea; C6H5.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE mixed		25°C	82%	U		K1=8.75 B2=11.56 B3=3.70	1979TBa (55938)	2002

Medium: 82% formamide

Ag+	ISE mixed		25°C	0.20M	U I		B3=14.62	1978BMb (55939)	2003
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Medium: 40 mol/l H2O in H2O/Dimethylformamide mixed solvent

\*\*\*\*\*  
 C7H8N4S L CAS 3608-75-1 (1799)  
 2-Pyridinecarboxaldehyde thiosemicarbazone; C5H4N.CH:N.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	oth/un	25°C	0.10M	U		K1=13.4	1975LMb (56020)	2004

\*\*\*\*\*  
 C7H8O L Anisole CAS 100-66-3 (3131)  
 Methoxybenzene; C6H5.OCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+      sol oth/un 25°C    ?  U      K1=0.40      1950AKa (56052)2005
*****
C7H8O4S      HL      (3159)
4-Methoxybenzenesulfonic acid; CH3O.C6H4.SO3H
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+      oth NaCl04 25°C  1.0M U      K1=-0.12  B2=-0.22  1958ACb (56138)2006
*****
C7H9N      L      2,3-Lutidine      CAS 583-61-9 (4415)
2,3-Dimethylpyridine; C5H3N.(CH3)2
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+      ISE KNO3   25°C  0.50M U      K1=2.45   B2=4.78   1972FHb (56181)2007
*****
C7H9N      L      2,4-Lutidine      CAS 108-37-4 (319)
2,4-Dimethylpyridine; C5H3N.(CH3)2
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+      ISE KNO3   25°C  0.10M U      K1=1.93   B2=4.626  1987KLa (56192)2008
-----
Ag+      ISE KNO3   25°C  0.50M U      K1=2.54   B2=5.07   1972FHb (56193)2009
-----
Ag+      ISE alc/w  25°C  96%  U      K1=2.66   B2=5.23   1972MTb (56194)2010
Medium: 96% EtOH, 0.1 M NaCl04
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-----
Ag+      gl  KNO3   25°C  0.50M U      K1=2.47   B2=5.18   1948BVa (56195)2011
*****
C7H9N      L      2,5-Lutidine      CAS 589-93-5 (3728)
2,5-Dimethylpyridine; C5H3N(CH3)2
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+      ISE KNO3   25°C  0.50M U      K1=2.56   B2=4.91   1972FHb (56203)2012
-----
Ag+      gl  KNO3   25°C  0.61M U      K1=2.42   B2=4.95   1967SBd (56204)2013
*****
C7H9N      L      2,6-Lutidine      CAS 108-44-1 (723)
2,6-Dimethylpyridine; C5H3N.(CH3)2
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+      gl  NaNO3   25°C  0.50M C      K1=2.51      1984ERa (56211)2014
-----
Ag+      ISE KNO3   25°C  0.50M U      K1=2.68   B2=5.06   1972FHb (56212)2015
-----
Ag+      ISE alc/w  25°C  96%  U      K1=2.65   B2=5.14   1972MTb (56213)2016
-----

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Medium: 96% EtOH, 0.1 M NaClO4

-----  
Ag+ ISE mixed 25°C 80% U I B2=5.28 1965PLa (56214)2017  
Medium: acetone. B2=4.95(0%),4.90(10%),4.85(20%),4.81(30%),4.80(40%),  
4.83(50%),4.89(60%),5.01(70%)  
-----

Ag+ ISE diox/w 25°C 90% U I B2=5.36 1965PLa (56215)2018  
Medium: B2=4.83(10% dioxan),4.75(20%),4.70(30%),4.68(40%),4.70(50%),  
4.76(60%),4.89(70%),5.10(80%)  
-----

Ag+ ISE alc/w 25°C 90% U I B2=4.81 1965PLa (56216)2019  
Medium: EtOH. B2=5.01(10%),4.99(20%),4.92(30%),4.82(40%),4.71(50%),  
4.60(60%),4.59(70%),4.66(80%)  
-----

\*\*\*\*\*  
C7H9N L CAS 100-71-0 (721)  
2-Ethylpyridine; C5H4N.C2H5  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	KN03	25°C	0.50M	U			K1=1.66 B2=4.469	1987KLa (56223)	2020
Ag+	EMF	KN03	25°C	0.50M	U	H		K1=2.29 B2= 4.55	1976BEb (56224)	2021
Method: Ag electrode. By calorimetry, DH(K1)=-24.0 kJ mol <sup>-1</sup> , DS(K1)=-36.8 J K <sup>-1</sup> mol <sup>-1</sup> , DH(B2)=-41.6, DS(B2)=-52.47.										

-----

Ag+ ISE alc/w 25°C 96% U K1=2.49 B2=4.92 1972MTb (56225)2022  
Medium: 96% EtOH, 0.1 M NaClO4  
\*\*\*\*\*  
C7H9N L 2-Methylaniline CAS 95-53-4 (3133)  
2-Methylaminobenzene (o-Toluidine); CH3.C6H4.NH2  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	U			K1=2.04 B2=3.25 B3=3.48	1960ALa (56233)	2023
Medium: EtOH										

-----

Ag+ oth alc/w 25°C 59% U B2=3.65 1952FYa (56234)2024  
-----

Ag+ dis KN03 25°C 1.0M U K1=1.51 1952G0a (56235)2025  
K(Ag+AgL)=0.15  
-----

Ag+ ISE alc/w 25°C 50% U B2=3.17 1934LAb (56236)2026  
Medium: 50 mol% EtOH  
-----

Ag+ ISE oth/un 20°C 0.02M U B2=3.61 1924PAa (56237)2027  
-----

\*\*\*\*\*  
C7H9N L 3,4-Lutidine CAS 583-58-4 (2056)  
3,4-Dimethylpyridine; C5H3N.(CH3)2  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.50M	U		K1=2.43 B2=4.85	1972FHB	(56251)2028

Ag+	ISE	alc/w	25°C	96%	U		K1=2.63 B2=5.20	1972MTb	(56252)2029
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Medium: 96% EtOH, 0.1 M NaClO4

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C7H9N L 3,5-Lutidine (323)  
3,5-Dimethylpyridine; C5H3N.(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.50M	U		K1=2.36 B2=4.66	1972FHB	(56274)2030

Ag+	ISE	alc/w	25°C	96%	U		K1=2.59 B2=4.99	1972MTb	(56275)2031
-----	-----	-------	------	-----	---	--	-----------------	---------	-------------

Medium: 96% EtOH, 0.1 M NaClO4

Ag+	gl	KNO3	25°C	0.61M	U		K1=2.37 B2=4.65	1967SBd	(56276)2032
-----	----	------	------	-------	---	--	-----------------	---------	-------------

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C7H9N L 3-Ethylpyridine CAS 536-78-7 (2038)  
3-Ethylazine, 3-Ethylpyridine; C5H4N.C2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	KNO3	25°C	0.50M	U	H	K1=2.23 B2= 4.53	1976BEb	(56294)2033

Method: Ag electrode. By calorimetry, DH(K1)=-21.8 kJ mol<sup>-1</sup>,  
DS(K1)=-30.6 J K<sup>-1</sup> mol<sup>-1</sup>, DH(B2)=-50.04, DS(B2)=-81.13.

\*\*\*\*\*

C7H9N L 3-Methylaniline CAS 108-44-1 (755)  
3-Methylaniline (3-Toluidine); CH3.C6H4.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	U		K1=2.35 B2=3.63	1960ALa	(56303)2034

B3=3.98

Medium: EtOH

Ag+	oth	alc/w	25°C	59%	U		B2=3.46	1952FYa	(56304)2035
-----	-----	-------	------	-----	---	--	---------	---------	-------------

Ag+	dis	KNO3	25°C	1.0M	U		K1=1.47	1952G0a	(56305)2036
-----	-----	------	------	------	---	--	---------	---------	-------------

K(Ag+AgL)=0.22

\*\*\*\*\*

C7H9N L 4-Ethylpyridine CAS 536-75-4 (2055)  
4-Ethylazine, 4-Ethylpyridine; C5H4N.C2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	KNO3	25°C	0.50M	U	H	K1=2.34 B2= 4.67	1976BEb	(56319)2037

Method: Ag electrode. By calorimetry, DH(K1)=-25.6 kJ mol<sup>-1</sup>,  
DS(K1)=-41.0 J K<sup>-1</sup> mol<sup>-1</sup>, DH(B2)=-52.93, DS(B2)=-88.12.

-----  
Ag+ ISE alc/w 25°C 96% U K1=2.46 B2=4.96 1972MTb (56320)2038  
Medium: 96% EtOH, 0.1 M NaCl04

\*\*\*\*\*  
C7H9N L 4-Methylaniline CAS 106-49-0 (754)  
4-Methylaniline (4-Toluidine); CH3.C6H4.NH2  
-----

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

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Ag+	ISE	alc/w	25°C	100%	U		B2=3.86 B3=4.22	1960ALa (56336)	2039
-----	-----	-------	------	------	---	--	--------------------	-----------------	------

Medium: EtOH

-----  
Ag+ oth alc/w 25°C 50% U B2=3.9 1952FYa (56337)2040  
-----

Ag+ dis KNO3 25°C 1.0M U K1=1.56 1952G0a (56338)2041  
K(Ag+AgL)=0.09  
-----

Ag+ ISE alc/w 25°C 50% U B2=3.48 1952G0a (56339)2042  
Medium: 50 mol% EtOH

\*\*\*\*\*  
C7H9N L Benzylamine CAS 100-46-9 (3132)  
Benzylamine; C6H5.CH2.NH2  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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-----

Ag+	gl	oth/un	25°C	0.50M	U		K1=3.02 B2=7.04	1983HNa (56353)	2043
-----	----	--------	------	-------	---	--	-----------------	-----------------	------

Medium: 0.1 M LHN03

-----  
Ag+ ISE alc/w 25°C 100% U B2=7.79 1960ALa (56354)2044  
Medium: EtOH  
-----

Ag+ gl KNO3 30°C 1.0M U K1=3.02 B2=6.80 1954GFb (56355)2045  
-----

Ag+ gl KNO3 25°C 0.50M U T K1=3.29 B2=7.14 1948BVa (56356)2046  
b(logB2)/dt=0.032  
-----

Ag+ ISE alc/w 25°C 50% U B2=7.06 1934LAb (56357)2047

\*\*\*\*\*  
C7H9N L N-Me-Aniline CAS 100-61-8 (1344)  
N-Phenyl-N-methylamine; C6H5.NH.CH3  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	alc/w	25°C	96%	U		K1=1.38 B2=1.74	1961ALb (56365)	2048
-----	-----	-------	------	-----	---	--	-----------------	-----------------	------

Medium: 96% EtOH

-----  
Ag+ dis KNO3 25°C 1.0M U K1=1.00 1952G0a (56366)2049  
K(Ag+AgL)=-0.10  
-----

\*\*\*\*\*

C7H9NO3S HL CAS 87655-41-2 (5520)  
2,6-Dimethylpyridine-3-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	NaNO3	25°C	0.50M	C		K1=1.95	1984ERa (56449)	2050

C7H9N3S L CAS 5351-69-9 (3161)  
4-Phenylthiosemicarbazide;C6H5.NH.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	NaCl04	25°C	0.1M	C		K1=8.08 B2=10.66	1976BBh (56503)	2051

C7H10N2 L CAS 25086-88-8 (4418)  
2-Ethyl-1-vinylimidazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	1.0M	U		K1=2.97 B2=6.22	1969NNa (56616)	2052

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
Ag+	EMF	NaNO3	20°C	0.10M	U		K1=4.4	1971ANa (56651)	2053

C7H10N2O L (4442)  
2-Hydroxyethyl-1-vinylimidazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	1.0M	U		K1=2.86 B2=6.24	1969NNa (56663)	2054

C7H10N2O L (4443)  
4-Hydroxyethyl-1-vinylimidazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	1.0M	U		K1=3.03 B2=6.40	1969NNa (56665)	2055

C7H10N2OS HL CAS 51-52-5 (4468)  
6-Propyl-2-thiouracil (6-propyl-4-hydroxy-2-mercaptopyrimidine);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	none	25°C	0.0	C T H		K1=11.8 B2=20.90	2002DZa (56675)	2056

Method: Ag electrode. Data for 5-45 C. DH(K1)=-7.9 kJ mol-1, DS(K1)=64.4 J K-1 mol-1; DH(B2)=-4.2, DS(B2)=163.

C7H10O2 L CAS 1670-46-8 (4416)  
2-Acetylcyclopentanone;

Ag+ gl diox/w 30°C 75% U K1=4.22 1967SUa (56708)2057

C7H10O4 H2L CAS 5164-76-1 (959)  
Pent-1-ene-5-dioic acid; CH2:CH.CH2.CH2.CH(COOH)2

Ag+ ISE oth/un 25°C 0.10M M K1=2.280 1975IPa (56743)2058

C7H11NO4                      H2L                      CAS 16598-06-4    (965)

Ag+ ISE oth/un 25°C 0.10M M K1=4.71 B2=6.9 1975IPa (56783)2059

C7H11N2+                      L                      (4420)

Ag+ g1 KNO3 25°C 0.50M U K1=2.08 B2=4.46 1969PBa (57021)2060

C7H12                      L                      CAS 2146-38-5    (3720)

Ag+      dis non-aq 30°C 100%   U      K1=0.56      1962GHa (57025)2061

[illegible]

Ag+            dis non-aq 30°C 100%    U            K1=0.10            1962GHa (57026)2062

C7H12                          L                          CAS 694-35-9    (3721)

3-Ethylcyclopentene; C<sub>5</sub>H<sub>7</sub>.CH<sub>2</sub>.CH<sub>3</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U		K1=1.07	1962GHa (57027)	2063
Medium: ethylene glycol, 1.77 M AgNO3									
*****									
C7H12		L					CAS 591-48-0	(3717)	
3-Methylcyclohexene; C6H9.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U		K1=0.74	1962GHa (57028)	2064
Medium: ethylene glycol, 1.77 M AgNO3									
*****									
C7H12		L					CAS 3742-38-9	(3722)	
4-Ethylcyclopentene; C5H7.CH2.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U		K1=0.85	1962GHa (57029)	2065
Medium: ethylene glycol, 1.77 M AgNO3									
*****									
C7H12		L					CAS 591-47-9	(3718)	
4-Methylcyclohexene; C6H9.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U		K1=0.71	1962GHa (57030)	2066
Medium: ethylene glycol, 1.77 M AgNO3									
*****									
C7H12		L					CAS 1192-37-6	(3719)	
Methylenecyclohexane; CH2:C6H10									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U		K1=0.98	1962GHa (57032)	2067
Medium: ethylene glycol, 1.77 M AgNO3									
*****									
C7H12N4		L					CAS 7198-75-6	(4423)	
1,5-Hexamethylenetetrazole;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.10M	U	I	B2=3.05	1969DPc (57203)	2068
I=0.4: B2=2.98									
*****									
C7H12O2		HL					CAS 1119-60-4	(963)	
5-Heptenoic acid; CH3.CH:CH.CH2.CH2.CH2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

Ag+ ISE oth/un 25°C 0.10M M K1=2.075 1975IPa (57221)2069  
Medium: K-acetate

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C7H12O2S HL (4446)  
(Pent-1-enylthio)ethanoic acid; CH2:CH.CH2.CH2.CH2.S.CH2.COOH

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

Ag+ ISE oth/un 25°C 0.20M U T H K1=4.19 B2=7.00 1971BFb (57252)2070  
K(Ag+HL)=3.43  
K(Ag+2HL)=5.85  
B(Ag2L)=6.10  
K1(0.6 C)=4.73, K1(39 C)=3.90, B2(0.6 C)=7.38, B2(39 C)=6.40  
DH(K1)=-35.1 kJ mol<sup>-1</sup>, DH(K2)=-20

-----  
Ag+ ISE oth/un 25°C 0.10M U I K1=4.21 B2=6.95 1968PSb (57253)2071  
In acetate buffer, I=0.2 M: K(Ag+HL)=3.44

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C7H12O2Se HL (4447)  
(Pent-1-enylseleno)ethanoic acid; CH2:CH.CH2.CH2.CH2.Se.CH2.COOH

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

Ag+ ISE oth/un 25°C 0.20M U T H K1=4.63 B2=7.97 1971BFb (57255)2072  
K(Ag+HL)=3.99  
K(Ag+2HL)=6.72  
B(Ag2L)=6.44  
K1(0.8 C)=5.30, K1(39.1 C)=4.43, B2(0.8 C)=9.05, B2(39.1 C)=7.42  
DH(K1)=-38.2 kJ mol<sup>-1</sup>, DH(K2)=-33

\*\*\*\*\*

C7H12O4 H2L CAS 534-59-8 (480)  
Butylpropanedioic acid (Butylmalonic acid); HOOC.CH(C4H9).COOH

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE oth/un 25°C 0.10M M K1=0.74 1975IPa (57329)2073  
Medium: K-acetate

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C7H12O4S2 H2L (1094)  
1,3-Dithiopropene-S,S'-diethanoic acid; (HOOC.CH2.S.CH2)2.CH2

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

Ag+ ISE NaNO3 20°C 1.0M U K1=5.7 B2=8.1 1944LAa (57382)2074  
\*\*\*\*\*

C7H13NO2 HL CAS 103067-99-4 (1127)  
2-Amino-hept-6-enoic acid; CH2:CH.CH2.CH2.CH2.CH(NH2).COOH

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

Ag+ gl KNO3 25°C 0.10M C K1=3.34 B2=6.41 1975IPb (57435)2075  
K(Ag+HL)=1.73

\*\*\*\*\*

C7H13NO3 HL (7175)

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

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

Ag+ gl KNO3 25°C 0.10M U K1=1.25 B2=4.82 1995MWb (57470)2076

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C7H13NO4 H2L CAS 16578-07-5 (341)

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

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

Ag+ ISE oth/un 25°C 0.10M M K1=4.29 B2=7.5 1975IPa (57522)2077  
Medium: 0.10M K-acetate

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C7H14N2O3S HL Gly-Met CAS 554-94-9 (726)

Glycyl-methionine; H2N.CH2.CO.NH.CH(CH2.CH2.S.CH3).COOH

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

Ag+ gl KNO3 25°C 0.10M C K1=4.7 B2=8.03 1984LPa (57790)2078

B(AgHL)=11.91

B(AgH2L)=17.4

B(Ag2L2)=12.34

\*\*\*\*\*

C7H14N2O3S HL Met-Gly CAS 14486-03-4 (727)

Methionyl-glycine; H2N.CH(CH2.CH2.S.CH3).CO.NH.CH2.COOH

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

Ag+ gl KNO3 25°C 0.10M C K1=4.63 B2=8.29 1984LPa (57811)2079

B(AgHL)=10.72

B(AgH2L)=15.47

B(Ag2L2)=12.45

B(Ag2HL2)=18.70

\*\*\*\*\*

C7H14N2O4S2 H2L CAS 28052-93-7 (526)

S,S'-Methylenebis(L-cysteine); H2N(HOOC)CH.CH2.S.CH2.S.CH2.CH(COOH)NH2

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ gl KNO3 20°C 0.10M U K1=8.69 1975SSf (57826)2080

K(AgL)=6.40

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C7H14O L CAS 6439-54-9 (3736)

cis-1-(2'-Methylpropoxy)propene; (CH3)2.CH.CH2.O.CH:CH.CH3

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U T H		K1=0.37	1968FKb (57846)	2081
Medium:ethylene glycol. K1=0.55(10 C),0.46(20 C). DH(K1)=-15.5 kJ mol-1, DS=-43.5 J K-1 mol-1									

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C7H14O	L						CAS 16969-31-6	(3734)	
cis-1-Ethoxy-3-methylbut-1-ene; CH3.CH2.O.CH:CH.CH(CH3)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U T H		K1=0.54	1968FKb (57847)	2082
Medium:ethylene glycol. K1=0.78(10 C),0.65(20 C). DH(K1)=-19.7 kJ mol-1, DS=-53.9 J K-1 mol-1									

\*\*\*\*\*

C7H14O	L						CAS 23186-68-7	(3737)	
trans-1-(2'-Methylpropoxy)propene; (CH3)2.CH.CH2.O.CH:CH.CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U T H		K1=-0.26	1968FKb (57848)	2083
Medium:ethylene glycol. K1=-0.11(10 C),-0.22(20 C). DH(K1)=-11.7 kJ mol-1, DS=-44.3 J K-1 mol-1									

\*\*\*\*\*

C7H14O	L						CAS 16969-18-9	(3735)	
trans-1-Ethoxy-3-methylbut-1-ene; CH3.CH2.O.CH:CH.CH(CH3)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	non-aq	30°C	100%	U T H		K1=-0.30	1968FKb (57849)	2084
Medium:ethylene glycol. K1=-0.11(10 C),-0.23(20 C). DH(K1)=-14.6 kJ mol-1, DS=-53.9 J K-1 mol-1									

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C7H14O2S	HL						CAS 22683-44-9	(4457)	
(Pentylthio)ethanoic acid; CH3.CH2.CH2.CH2.CH2.S.CH2.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U I		K1=3.92 B2=6.95	1968PSb (57856)	2085
In acetate buffer, I=0.2 M, K(Ag+HL)=3.15									

\*\*\*\*\*

C7H15N	L						CAS 108-49-6	(1648)	
2,6-Dimethylpiperidine; C5H9N.(CH3)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	cal	KN03	25°C	0.50M	C H			1975EBa (57897)	2086
DH(K1)=-24.4 kJ mol-1, DS(K1)=-5.9 J K-1 mol-1. DH(B2)=-48.37, DS(B2)=-14.									

Ag+ EMF KNO3 25°C 0.50M U K1=3.93 B2=7.77 1973BBa (57898)2087  
\*\*\*\*\*

C7H15N L CAS 1484-80-6 (1647)  
2-Ethylpiperidine; C5H10N.C2H5

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

Ag+ ISE KNO3 25°C 0.50M U K1=3.84 B2=7.36 1973BBa (57900)2088  
\*\*\*\*\*

C7H15N L CAS 766-09-6 (4425)  
N-Ethylpiperidine; C5H10N-C2H5

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

Ag+ ISE KNO3 25°C 0.50M U K1=3.12 B2=5.20 1973BBa (57904)2089  
\*\*\*\*\*

C7H15NS2 L (6802)  
7-Methyl-1,4-dithia-7-azacyclononane;

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

Ag+ gl R4N.X 25°C 0.10M M K1=7.66 B2=13.72 1990CKb (58012)2090  
Medium: 0.1 M Me4NNO3

\*\*\*\*\*  
C7H16O2S2 L CAS 54278-31-8 (4462)  
3,7-Dithianonan-1,9-diol; HO.CH2.CH2.S.CH2.CH2.S.CH2.CH2.OH

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

Ag+ ISE KNO3 20°C 1.0M U H 1970WSa (58089)2091  
DH(K1)=-53.1 kJ mol<sup>-1</sup>, DS=-79.1 J K<sup>-1</sup> mol<sup>-1</sup>, DH(K2)=-43.5 kJ mol<sup>-1</sup>,  
DS=-97.1 J K<sup>-1</sup> mol<sup>-1</sup>. DH(AgL+Ag)=1.7 kJ mol<sup>-1</sup>, DS=51.5 J K<sup>-1</sup> mol<sup>-1</sup>. pH=3

\*\*\*\*\*  
C7H17NS L CAS 3492-79-3 (1222)  
1-Diethylamino-3-thiabutane; (C2H5)2N.CH2.CH2.S.CH3

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

Ag+ gl KNO3 25°C 0.50M U K1=4.88 B2=8.66 1977TGa (58182)2092  
B(2Ag+L)=6.16  
B(2Ag+2L)=11.23  
B(Ag+HL)=2.59  
B(Ag+HL+L)=7.00

B(Ag+2HL)=3.98

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Ag+ cal KNO3 25°C 0.50M C H 1977TGc (58183)2093  
DH(Ag+HL)=-27.3 kJ mol<sup>-1</sup>, DH(Ag+2HL)=-53.6 DH(Ag+HL+L)=-57.7,  
DH(B2)=-63.72, DH(2Ag+2L)=-64.31, DH(2Ag+L)=-34.9.

\*\*\*\*\*  
C7H18N2 L CAS 110-95-2 (2277)

N,N,N',N'-Tetramethyl-1,3-diaminopropane; (CH<sub>3</sub>)<sub>3</sub>N.CH<sub>2</sub>.CH<sub>2</sub>.CH<sub>2</sub>.N(CH<sub>3</sub>)<sub>3</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C	H		K1=1.67 B2= 2.83	2002CNa (58241)	2094
Method: Ag electrode. Medium: DMSO, 0.10 M Et <sub>4</sub> NClO <sub>4</sub> . By calorimetry, DH(K1)=-21.7 kJ mol <sup>-1</sup> , DS(K1)=-41 J K <sup>-1</sup> mol <sup>-1</sup> ; DH(B2)=-39.6, DS(B2)=-79.										

Ag+	ISE	KNO <sub>3</sub>	25°C	1.00M	C			K1=2.21 B(AgHL)=11.26	1994GYa (58242)	2095
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C7H18N<sub>2</sub>S L Thiospermidine CAS 86108-46-5 (8300)  
4-[(3-Aminopropyl)thio]-1-butanamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO <sub>3</sub>	25°C	0.50M	C			B2=8.72	1984SGe (58263)	2096
								K(Ag+H <sub>2</sub> L)=3.23		
								K(Ag+2H <sub>2</sub> L)=5.10		
								K(2Ag+2HL)=13.16		
								K(2Ag+HL+L)=14.98		

Additional method: Ag electrode. B(Ag<sub>2</sub>L<sub>2</sub>)=15.76,  
K(Ag+H<sub>2</sub>L+HL)=6.83, K(Ag+2HL)=7.67, K(Ag+HL+L)=8.56, B(Ag<sub>2</sub>L)=10.46.

Ag+	cal	KNO <sub>3</sub>	25°C	0.50M	C	H			1984STc (58264)	2097
DH(Ag+H <sub>2</sub> L)=-33.1 kJ mol <sup>-1</sup> , DS(Ag+H <sub>2</sub> L)=-49 J K <sup>-1</sup> mol <sup>-1</sup> ; DH(Ag+2H <sub>2</sub> L)=-66.9, DS(Ag+2H <sub>2</sub> L)=-127; DH(2Ag+2L)=-127.6, DS=-126; DH(B2)=-68.0, DS(B2)=-61.										

\*\*\*\*\*  
C7H19N<sub>3</sub> L CAS 105-84-0 (4429)  
5-Methyl-2,5,8-triazanonane; CH<sub>3</sub>.NH.CH<sub>2</sub>.CH<sub>2</sub>.N(CH<sub>3</sub>).CH<sub>2</sub>.CH<sub>2</sub>.NH.CH<sub>3</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	NaNO <sub>3</sub>	25°C	1.3M	C			K1=5.18 B2= 7.38	1983YMb (58323)	2098
								B(AgHL)=13.52		
								B(AgHL <sub>2</sub> )=16.95		
								B(Ag <sub>2</sub> L <sub>2</sub> )=12.40		
								B(Ag <sub>3</sub> L <sub>2</sub> )=14.29		

Ag electrode. B(AgH-1L)=-6.67

\*\*\*\*\*  
C8H<sub>5</sub>N<sub>5</sub>O<sub>6</sub> H<sub>3</sub>L Murexide (453)  
Purpuric acid (Murexide is ammonium salt);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	sp	alc/w	25°C	100%	U	I		K1=3.87	1987GKb (58467)	2099
Medium: MeOH. Also in DMF (K1=4.33)										

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C8H<sub>5</sub>O<sub>2</sub>F<sub>3</sub>S HL TTA CAS 326-91-0 (165)  
4,4,4-Trifluoro-1-(2-thienyl)butane-1,3-dione; F<sub>3</sub>C.CO.CH<sub>2</sub>.CO.C<sub>4</sub>H<sub>3</sub>S

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        dis NaClO4 25°C 0.10M U      K1=1.10      1973STa (58591)2100
*****
C8H6              L      Ethynylbenzene  CAS 536-74-3 (4471)
Phenylacetylene; C6H5.CCH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        EMF NaNO3 25°C 1.0M U      K1=0.44      1973STd (58731)2101
*****
C8H7NO2              HL                      (296)
2-(Carboxyvinyl)pyridine; C5H4N.CH:CH.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        gl  KNO3 25°C 0.10M U      K1=1.83 B2=3.6  1974ILa (59093)2102
*****
C8H7NO4S              HL                      CAS 6375-65-1 (4563)
(2-Nitrophenylthio)ethanoic acid; O2N.C6H4.S.CH2.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE oth/un 20°C 0.10M U I      K1=1.94      1968PRa (59150)2103
Acetate buffer. I=0.2, K(Ag+HL)=1.84
*****
C8H7NO4S              HL                      CAS 3406-75-5 (4564)
(4-Nitrophenylthio)ethanoic acid; O2N.C6H4.S.CH2.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE oth/un 25°C 0.10M U T      K1=1.86      1969BLc (59155)2104
Acetate buffer.
K1(1.2C)=2.13, K1(38.4C)=1.71, B2(1.2C)=3.6
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Ag+        ISE oth/un 20°C 0.10M U I      K1=1.98      1968PRa (59156)2105
Acetate buffer. I=0.2, K(Ag+HL)=1.58
*****
C8H7NO4Se              HL                      (4565)
(2-Nitrophenylseleno)ethanoic acid; O2N.C6H4.Se.CH2.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE oth/un 20°C 0.10M U I      K1=2.66 B2=4.90  1968PSa (59158)2106
Acetate buffer. I=0.2, K(Ag+HL)=2.18
*****
C8H7NO4Se              HL                      (4566)
(3-Nitrophenylseleno)ethanoic acid; O2N.C6H4.Se.CH2.COOH
-----

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=3.09 B2=5.60	1968PSa	(59160)2107
Acetate buffer. I=0.2, K(Ag+HL)=2.35										

\*\*\*\*\*

C8H7N04Se HL (4567)  
(4-Nitrophenylseleno)ethanoic acid; O2N.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U	T		K1=2.82 B2=5.15	1969BLc	(59162)2108
Acetate buffer.										
K1(1.2C)=3.17, K1(38.6C)=2.6, B2(1.2C)=5.71, B2(38.6C)=5.00										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=2.89 B2=5.32	1968PSa	(59163)2109
Acetate buffer. I=0.2, K(Ag+HL)=2.26										

\*\*\*\*\*

C8H7O2BrS HL CAS 3406-76-6 (4560)  
(4-Bromophenylthio)ethanoic acid; Br.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U	T		K1=2.53 B2=4.56	1969BLc	(59194)2110
Acetate buffer.										
K1(1.2C)=2.89, K1(38.3C)=2.35, B2(1.2C)=4.78, B2(38.3C)=4.48										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=2.61 B2=4.64	1968PRa	(59195)2111
Acetate buffer. I=0.2, K(Ag+HL)=2.21										

\*\*\*\*\*

C8H7O2BrSe HL CAS 78377-03-4 (4561)  
(2-Bromophenylseleno)ethanoic acid; Br.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=3.36 B2=6.28	1968PSa	(59197)2112
Acetate buffer. I=0.2, K(Ag+HL)=2.69										

\*\*\*\*\*

C8H7O2BrSe HL CAS 17893-52-6 (4562)  
(4-Bromophenylseleno)ethanoic acid; Br.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U	T		K1=3.42 B2=6.01	1969BLc	(59199)2113
Acetate buffer.										
K1(1.2C)=3.85, K1(38.4C)=3.21, B2(1.2C)=6.67, B2(38.4C)=5.80										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=3.49 B2=6.31	1968PSa	(59200)2114
Acetate buffer. I=0.2, K(Ag+HL)=2.73										

\*\*\*\*\*

C8H7O2ClS HL CAS 18619-18-6 (4554)

(2-Chlorophenylthio)ethanoic acid; Cl.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=2.49 B2=4.63	1968PRa (59228)	2115
Acetate buffer. I=0.2, K(Ag+HL)=1.87										
*****										
C8H7O2ClS		HL						CAS 3996-38-1	(4555)	
(3-Chlorophenylthio)ethanoic acid; Cl.C6H4.S.CH2.COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	T		K1=2.43 B2=4.28	1969BLc (59230)	2116
Acetate buffer										
K1(2.1C)=2.78, K1(38.6C)=2.28, B2(2.1C)=4.80, B2(38.6C)=4.16										

Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=2.51 B2=4.57	1968PRa (59231)	2117
Acetate buffer. I=0.2, K(Ag+HL)=2.04										
*****										
C8H7O2ClS		HL						CAS 3405-88-7	(4556)	
(4-Chlorophenylthio)ethanoic acid; Cl.C6H4.S.CH2.COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U	T		K1=2.57 B2=4.41	1969BLc (59233)	2118
Acetate buffer										
K1(1.3C)=2.9, K1(39.7C)=2.38, B2=(1.3C)=4.83, B2(38.7C)=4.36										

Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=2.64 B2=4.70	1968PRa (59234)	2119
I= 0.2, K(Ag+HL)=2.07										
*****										
C8H7O2ClSe		HL						(4557)		
(2-Chlorophenylseleno)ethanoic acid; Cl.C6H4.Se.CH2.COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=3.27 B2=5.98	1968PSa (59236)	2120
Acetate buffer. I=0.2, K(Ag+HL)=2.57										
*****										
C8H7O2ClSe		HL						(4558)		
(3-Chlorophenylseleno)ethanoic acid; Cl.C6H4.Se.CH2.COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U	T		K1=3.33 B2=5.64	1969BLc (59238)	2121
Acetate buffer.										
K1(2.3C)=3.75, K1(38.7C)=3.10, B2(2.3C)=6.39, B2(38.7C)=5.57										

Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=3.39 B2=5.99	1968PSa (59239)	2122
Acetate buffer. I=0.2, K(Ag+HL)=2.67										

\*\*\*\*\*

C8H7O2ClSe HL (4559)  
(4-Chlorophenylseleno)ethanoic acid; Cl.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U T		K1=3.44 B2=5.90	1969BLc	(59241)2123
Acetate buffer. T=24.9C K1(1.2C)=3.87, B2(1.2C)=6.53)									

Ag+	ISE	oth/un	20°C	0.10M	U I		K1=3.50 B2=6.19	1968PSa	(59242)2124
Acetate buffer. I=0.2, K(Ag+HL)=2.75									

\*\*\*\*\*

C8H8 L Vinylbenzene CAS 100-42-5 (811)  
Styrene; C6H5.CH:CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	nmr	non-aq	30°C	100%	U		K1=0.35	1973DBa	(59249)2125
Medium: CH3CN									

Ag+	ISE	alc/w	25°C	100%	U		K1=0.71	1973STd	(59250)2126
Medium: aq. EtOH, 1.0 M NaNO3									

Ag+	sol	KN03	25°C	1.0M	U T		K1=1.24 B2=1.19	1969INa	(59251)2127
K1(0 C)=1.56, K2(0 C)=0.08									

Ag+	dis	KN03	25°C	1.0M	U		K1=1.28 B2=1.48	1968FKa	(59252)2128
-----	-----	------	------	------	---	--	-----------------	---------	-------------

Ag+	dis	KN03	25°C	1.0M	U		K1=1.26	1950AKa	(59253)2129
K(Ag+AgL)=-0.09									

\*\*\*\*\*

C8H8N2 L CAS 39965-81-6 (5519)  
4-Cyano-2,6-dimethylpyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	NaNO3	25°C	0.50M	C		K1=1.56	1984ERa	(59303)2130

\*\*\*\*\*

C8H8O HL Acetophenone CAS 98-86-2 (3187)  
Acetophenone; C6H5.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U		K1=-0.27 B2=-1.23	1950AKa	(59417)2131

\*\*\*\*\*

C8H8O L Phenoxyethene CAS 98-86-2 (3794)  
Phenyl vinyl ether; C6H5.O.CH:CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ dis KNO3 25°C 1.0M U K1=0.72 B2=0.62 1968FKa (59418)2132

\*\*\*\*\*

C8H8O2S HL CAS 103-04-8 (3223)

(Phenylthio)ethanoic acid; C6H5.S.CH2.COOH

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

-----  
Ag+ ISE oth/un 25°C 0.10M U T K1=2.77 B2=4.86 1969BLc (59621)2133

In acetate buffer. K1(1.8 C)=3.10, K1(38.7 C)=2.59, B2(1.8 C)=5.10,

B2(38.7 C)=5.94

-----  
Ag+ ISE oth/un 20°C 0.10M U I K1=2.82 B2=4.77 1968PRa (59622)2134

In acetate buffer, I=0.2: K(Ag+HL)=2.29

-----  
Ag+ ISE NaNO3 20°C 1.0M U B2=7.27 1944LAa (59623)2135

\*\*\*\*\*

C8H8O2S HL 2-Thenoylacetone CAS 3151-27-2 (3224)

2-Thenoylacetone, 1-(2'-Thienyl)butane-1,3-dione; C4H3S.CO.CH2.CO.CH3

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

-----  
Ag+ gl diox/w 30°C 75% U K1=5.19 1967SUa (59635)2136

\*\*\*\*\*

C8H8O2S HL CAS 13205-48-6 (4506)

4-(Methylthio)benzoic acid; CH3.S.C6H4.COOH

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

-----  
Ag+ ISE oth/un 25°C 0.20M U K1=2.79 1968PSb (59651)2137

Acetate buffer

\*\*\*\*\*

C8H8O2Se HL CAS 17893-46-8 (4507)

(Phenylseleno)ethanoic acid; C6H5.Se.CH2.COOH

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

-----  
Ag+ ISE oth/un 25°C 0.10M U T K1=3.62 B2=6.10 1969BLc (59658)2138

Acetate buffer. K1(4 C)=3.99, K1(38.7 C)=3.39; B2(4 C)=6.95, B2(38.7 C)=5.94

-----  
Ag+ ISE oth/un 20°C 0.10M U I K1=3.70 B2=6.42 1968PSa (59659)2139

In acetate buffer, I=0.2: K(Ag+HL)=2.96

\*\*\*\*\*

C8H8O3 HL Furoylacetone CAS 67748-89-4 (3192)

Furoylacetone; C4H3O.CO.CH2.CO.CH3

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

-----  
Ag+ gl diox/w 30°C 75% U K1=7.61 1967SUa (60007)2140

\*\*\*\*\*



C8H8O3                      HL      Phenoxyacetic      CAS 122-59-8    (1153)  
Phenoxyethanoic acid; C6H5.O.CH2.COOH

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

Ag+            ISE oth/un 25°C 0.20M U T            K1=0.92            1969BLc (60032)2141  
K1(1.7 C)=1.01, K1(38.8 C)=0.91, acetate buffer

-----  
Ag+            ISE oth/un 20°C 0.20M U            K1=0.58            1968PSa (60033)2142  
\*\*\*\*\*

C8H9N                      L                      CAS 17618-94-9    (300)  
2-Allylpyridine; C5H4N.CH2.CH:CH2

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

Ag+            gl KNO3    25°C 0.10M U            K1=2.97    B2=4.8    1974ILa (60144)2143  
\*\*\*\*\*

C8H9NO2S                      HL                      CAS 104-18-7    (4575)  
(4-Aminophenylthio)ethanoic acid; H2N.C6H4.S.CH2.COOH

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

Ag+            ISE oth/un 20°C 0.10M U I            K1=3.22    B2=5.60    1968PRa (60368)2144  
Acetate buffer. K(Ag+H2L)= 1.98

-----  
C8H10                      L      o-Xylene            CAS 95-47-6    (3072)  
1,2-Dimethylbenzene, 2-Xylene; CH3.C6H4.CH3

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

Ag+            sol alc/w    25°C    50%    U            K1=0.16            19560Aa (60674)2145  
Medium: 50% MeOH

-----  
Ag+            sol none    25°C    0.0    U            K1=0.46    B2=0.96    1949AKa (60675)2146  
\*\*\*\*\*

C8H10                      L      m-Xylene            CAS 108-38-3    (3073)  
1,3-Dimethylbenzene, 3-Xylene; CH3.C6H4.CH3

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

Ag+            sp non-aq 20°C 100% U T H            K1=6.07            1964TJa (60677)2147  
Medium: m-xylene, Cl04. K1=3.62(1.4 C); DH=18.8 kJ mol-1

-----  
Ag+            sol alc/w    25°C    50%    U            K1=0.13            19560Aa (60678)2148  
Medium: 50% MeOH

-----  
Ag+            sol none    25°C    0.0    U            K1=0.48    B2=0.99    1949AKa (60679)2149  
\*\*\*\*\*

C8H10                      L      p-Xylene            CAS 106-42-3    (2145)  
1,4-Dimethylbenzene, 4-Xylene; CH3.C6H4.CH3

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        sol none   25°C  0.0  U          K1=0.42  B2=0.94  1949AKa (60680)2150
*****
C8H10      L      Ethylbenzene      CAS 100-41-4 (3186)
Ethylbenzene; C6H5.CH2.CH3
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        sol alc/w  25°C  50%  U          K1=0.01          19560Aa (60684)2151
Medium: 50% MeOH
*****
C8H10N2O   L      0-Tolylurea      CAS 614-77-7 (4583)
1-Methyl-2-(N-carbamyl)benzene; CH3.C6H4.NH.CO.NH2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE mixed  25°C  82%  U          K1=9.31  B2=12.01  1979TBd (60708)2152
B3=14.50
Medium: 82% v/v DMFA/H2O; 0.2 M KNO3
*****
C8H10N2O   HL     Mandelamidine    CAS 700-63-0 (3825)
2-Hydroxy-2-phenylacetamidine; C6H5.CH(OH).C(:NH)NH2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        gl  KNO3    25°C  0.10M U          K(Ag+HL)=4.40
K(Ag+2HL)=9.32
K(Ag(HL)2+OH)=5.02
*****
C8H10N2S   L          (2598)
2-Tolylthiocarbamide; CH3.C6H4.NH.CS.NH2
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE mixed  25°C  82%  U          K1=8.95  B2=11.45  1979TBa (60771)2154
B3=13.50
Medium: 82% formamide
*****
C8H10O3S2   HL          (3228)
4-(Ethylthio)benzenesulfonic acid; CH3.CH2.S.C6H4.SO3H
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE NaCl04 25°C  0.20M U          K1=2.59  B2=4.28  1958ACb (60841)2155
K3=1.23
K4=1.04
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Ag+ ISE NaClO4 25°C 0.10M U K1=2.62 B2=4.30 1957ACa (60842)2156  
K3=0.4

\*\*\*\*\*

C8H11N L CAS 69376-33-6 (542)

2,4,6-Trimethylpyridine; C5H2N.(CH3)3

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

Ag+ ISE KNO3 25°C 0.10M U B2=4.675 1987KLa (60939)2157  
-----

Ag+ ISE alc/w 25°C 96% U K1=2.86 B2=5.76 1972MTb (60940)2158  
Medium: 96% EtOH, 0.1 M NaClO4  
-----

Ag+ ISE alc/w 25°C 50% U B2=4.75 1934LAb (60941)2159

Medium: 50 mole % EtOH

\*\*\*\*\*

C8H11N L 2,4-Xylidine CAS 95-78-3 (3803)

2,4-Dimethylaniline; (CH3)2.C6H3.NH2

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

Ag+ ISE alc/w 25°C 100% U K1=2.49 B2=3.71 1960ALa (60946)2160  
B3=3.99

Medium: EtOH

\*\*\*\*\*

C8H11N L 2,6-Xylidine CAS 87-62-7 (3200)

2,6-Dimethylaniline; H2N.C6H3(CH3)2

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

Ag+ gl alc/w 25°C 50% U K1=1.47 B2=2.80 1955ANc (60949)2161  
Medium: 50 mole % EtOH  
-----

Ag+ dis KNO3 25°C 1.0M U K1=1.62 1952GOa (60950)2162  
K(Ag+AgL)=0.4

\*\*\*\*\*

C8H11N L CAS 622-39-9 (303)

2-(n-Propyl)pyridine; C5H4N.CH2.CH2.CH3

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

Ag+ EMF KNO3 25°C 0.50M U H K1=2.12 B2= 4.11 1976BEb (60956)2163  
Method: Ag electrode. By calorimetry, DH(K1)=-23.4 kJ mol<sup>-1</sup>,  
DS(K1)=-37.7 J K<sup>-1</sup> mol<sup>-1</sup>, DH(B2)=-40.7, DS(B2)=-57.87.  
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Ag+ gl KNO3 25°C 0.10M U K1=2.15 B2=4.45 1974ILa (60957)2164

\*\*\*\*\*

C8H11N L 3,5-Xylidine CAS 108-69-0 (3201)

3,5-Dimethylaniline; H2N.C6H3(CH3)2  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	KNO3	25°C	1.0M	U		K1=1.63 K(Ag+AgL)=0.04	1952G0a (60968)	2165

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C8H11N	L						CAS 1122-81-2	(3802)	
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4-Propylpyridine; C5H4N.CH2.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	96%	U		K1=2.53 B2=4.92	1972MTb (60978)	2166

Medium: 96% EtOH, 0.1 M NaClO4

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C8H11N	L						CAS 104-90-5	(4480)	
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5-Ethyl-2-methylpyridine; CH3.C5H3N.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	96%	U		K1=2.57 B2=5.09	1972MTb (60982)	2167

Medium: 96% EtOH, 0.1 M NaClO4

\*\*\*\*\*

C8H11N	L						CAS 103-69-5	(3804)	
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N-Ethylaniline; C6H5.NH.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	96%	U		K1=1.95 B2=2.95	1961ALb (60985)	2168

Medium: 96% EtOH, <0.01 M

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C8H11N	L	DiMethylaniline					CAS 121-69-7	(1343)	
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N-Phenyl-N,N-dimethylamine; C6H5.N(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	96%	U		K1=0.98	1961ALb (60987)	2169

Medium: 96% EtOH, <0.01 M

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C8H11NO	L						CAS 20819-02-5	(5524)	
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4-Methoxy-2,6-dimethylpyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	NaNO3	25°C	0.50M	C		K1=2.62	1984ERa (61031)	2170

\*\*\*\*\*

C8H11NO3S	HL						CAS 121-58-4	(3241)	
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N,N-Dimethylsulfanilic acid; 4-(CH3)2N.C6H4.SO3H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	NaClO4	25°C	0.10M	U		K1=0.76 B2=1.36	1958ACb (61171)	2171

C8H12N2 H2L CAS 6971-57-9 (1099)  
6-Methyl-2-(methylaminomethyl)pyridine; (CH<sub>3</sub>.NH.CH<sub>2</sub>)(CH<sub>3</sub>)C<sub>5</sub>H<sub>3</sub>N

\*\*\*\*\*

Additional method: Ag ion selective electrode.  $K(2Ag+HL+L)=12.77$ ,  $B(Ag_2L_2)=15.28$ ,  $K(Ag+H_2L+HL)=4.2$ ,  $K(Ag+2HL)=6.53$ ,  $B(Ag_2L)=8.42$ .

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C8H14 L CAS 453-24-3 (3790)  
1-Ethylcyclohexene; CH3.CH2.C6H9

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

Ag+ dis non-aq 30°C 100% U K1=0.11 1962GHa (61880)2178  
Medium: ethylene glycol, 1.77 M AgNO3

C8H14 L CAS 695-12-5 (3789)  
Ethylidenecyclohexane; CH3.CH:C6H10

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

Ag+ dis non-aq 30°C 100% U K1=0.48 1962GHa (61881)2179  
Medium: ethylene glycol, 1.77 M AgNO3

C8H14N4 L (4490)  
1,5-Heptamethylenetetrazole;

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

Ag+ ISE KNO3 25°C 0.10M U I B2=3.08 1969DPc (61969)2180  
I=0.4: B2=3.32

C8H14N4 L CAS 46002-63-5 (3210)  
1-Cyclohexyl-5-methyl-1,2,3,4-tetrazole;

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

Ag+ gl non-aq 25°C 100% U B2=2.26 1959PHa (61970)2181  
medium: CH3CN

C8H14O4S H2L (141)  
4,4'-Thiodibutanoic acid; HOOC.CH2.CH2.CH2.S.CH2.CH2.CH2.COOH

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

Ag+ EMF NaCl04 25°C 3.0M U K1=4.53 B2= 7.52 1985HIa (62105)2182  
B(AgHL)=9.70  
B(AgH2L)=14.24  
B(AgH2L2)=18.51  
B(AgH4L2)=27.16

Method: Ag/AgCl electrode.

Ag+ ISE NaNO3 20°C 1.0M U K1=4 B2=7 1944LAa (62106)2183

C8H14O4S2 H2L CAS 2906-60-7 (8435)  
4,4'-Dithiodibutanoic acid;

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

B(AgHL)=8.28  
B(AgH<sub>2</sub>L)=12.80

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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$$\begin{aligned} B(\text{Ag}2\text{L}) &= 10.99 \\ B(\text{Ag}3\text{L}) &= 12.2 \\ K(\text{Ag}+\text{HL}) &= 5.47 \\ K(2\text{Ag}+\text{HL}) &= 7.48 \end{aligned}$$

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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$B(\text{AgHL})=11.53$   
 $B(\text{AgH}_2\text{L})=14.75$   
 $B(\text{Ag}_2\text{L}_2)=15.13$   
 $B(\text{Ag}_2\text{HL}_2)=20.79$

\*\*\*\*\*

C8H16N2O4S2 H2L (4896)  
2,9-Diamino-4,7-dithiadecane-1,10-dioic acid; HOOCCH(NH2)CH2SCH2CH2SCH2CH(NH2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	KNO3	20°C	0.10M	U		K1=8.32 K(AgL+H)=6.05	1975SSf (62553)	2190
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C8H16O2S HL CAS 22683-45-0 (4546)  
(Hexylthio)ethanoic acid; CH3.CH2.CH2.CH2.CH2.CH2.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	oth/un	25°C	0.10M	U I		K1=3.94 B2=7.10	1968PSb (62623)	2191
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Acetate buffer. I=0.2, K(Ag+HL)=3.16

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C8H16O2S L (5721)  
2-Methyl-3-oxa-5-thianon-4-one; (CH3)2CH.O.CO.S.C4H9

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	EMF	alc/w	25°C	100%	U		K1=1.04 B2=1.61	1989MSa (62624)	2192
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0.1 M NaClO4 in EtOH

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C8H16O2S2 L CAS 294-95-1 (8604)  
1,7-Dioxa-4,10-dithiacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	cal	non-aq	25°C	100%	C H		K1=7.56 B2=12.85	1986BUe (62625)	2193
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DH(K1)=-60.8 kJ mol<sup>-1</sup>, DS(K1)=-59.7 J K<sup>-1</sup> mol<sup>-1</sup>; DH(K2)=ca. 0, DS(K2)=ca. 101. Medium: MeOH.

\*\*\*\*\*

C8H16O4 L 12-Crown-4 CAS 294-93-9 (174)  
1,4,7,10-Tetraoxacyclododecane; cyclo(-O.(CH2.CH2.O)3.CH2.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	cal	non-aq	25°C	100%	C H		K2=1.72	1992BCf (62645)	2194
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Medium: MeOH. DH(K2)=-31.7 kJ mol<sup>-1</sup>, DS(K2)=-73.5 J K<sup>-1</sup> mol<sup>-1</sup>.

Ag+	gl	non-aq	25°C	100%	C		K1=3.98 B2=7.29	1989BP a (62646)	2195
-----	----	--------	------	------	---	--	-----------------	------------------	------

Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4

Ag+	ISE	alc/w	25°C	100%	C H T		K1=1.61 B2=3.51	1987BUa (62647)	2196
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Medium: MeOH. DH(K1)=-10.7 kJ mol<sup>-1</sup>; DS=-5.4 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-38.6; DS=-63

Ag+	cal	non-aq	25°C	100%	C H		K2=1.90	1986BUe (62648)	2197
-----	-----	--------	------	------	-----	--	---------	-----------------	------

DH(K1)=-10.7 kJ mol<sup>-1</sup>, DS(K1)=-5.4 J K<sup>-1</sup> mol<sup>-1</sup>; DH(K2)=-27.9, DS(K2)=-57.4



Medium: MeOH.

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C8H17N L CAS 10388-95-1 (1646)

2-Propylpiperidine; C5H10N.CH2.CH2.CH3

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE KNO3 25°C 0.50M U K1=4.0 B2=7.52 1973BBa (62745)2198

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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  
-----  
Ag+ EMF alc/w 25°C 100% C I K1=4.34 B2= 8.14 2003TCb (62756)2199  
Medium: 100% MeOH. Also data for EtOH, DMSO, acetonitrile, propylene carbonate and nitromethane.

-----  
Ag+ EMF non-aq 25°C 100% C K1=3.73 B2= 6.80 1999THa (62757)2200  
Medium: acetonitrile. Method: Ag/Ag+ electrode.

-----  
Ag+ EMF non-aq 25°C 100% U K1=3.24 B2= 5.98 1998HTb (62758)2201  
Medium: DMSO. Method: Ag/Ag+ electrode

\*\*\*\*\*

C8H18N2O2 L CAS 294-92-8 (654)

1,7-Dioxo-4,10-diazacyclododecane;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE R4N.X 25°C 0.05M U H K1=11.47 B2=16.51 2002BSd (62836)2202  
Method: Ag+ ISE. Medium: propylene carbonate, 0.05 M Et4NClO4. By calorimetry: DH(K1)=-82.0 kJ mol<sup>-1</sup>, DS=-56.4 J K<sup>-1</sup> mol<sup>-1</sup>; DH(K2)=-26.7, DS=6.4.

-----  
Ag+ cal non-aq 25°C 100% C H K1=6.514 B2= 9.52 1986BUe (62837)2203  
DH(K1)=-31.9 kJ mol<sup>-1</sup>, DS(K1)=17 J K<sup>-1</sup> mol<sup>-1</sup>; DH(K2)=-21.5, DS(K2)=-15.  
Medium: MeOH.

-----  
Ag+ gl R4N.X 25°C 0.10M U K1=4.65 1985NSb (62838)2204  
B(AgHL)=12.0

\*\*\*\*\*

C8H18O2S2 L (4550)

3,8-Dithiadecan-1,10-diol; HO.CH2.CH2.S.(CH2)4.S.CH2.CH2.OH

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE KNO3 20°C 1.0M U H K1=5.07 B2=8.06 1970WSa (62974)2205  
K(AgL+Ag)=2.47  
DH(K1)=-51.0 kJ mol<sup>-1</sup>, DS=-77.4 J K<sup>-1</sup> mol<sup>-1</sup>; DH(K2)=-28.9, DS=-40.6.  
DH(AgL+Ag)=-8.4 kJ mol<sup>-1</sup>, DS=18.4 pH=3

\*\*\*\*\*

C8H18O2S3 L CAS 14440-77-8 (4551)  
3,6,9-Trithiaundecan-1,11-diol; (HO.CH2.CH2.S.CH2.CH2.)2S

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE KNO3 20°C 1.0M U H K1=7.61 B2=11.64 1970WSa (62975)2206  
K(AgL+Ag)=2.24  
DH(K1)=-78.2 kJ mol<sup>-1</sup>, DS=-120.5 J K<sup>-1</sup> mol<sup>-1</sup>; DH(K2)=-28.0, DS=-18.8;  
DH(AgL+Ag)=-7.5 kJ mol<sup>-1</sup>, DS=17.2 pH=3  
\*\*\*\*\*

C8H18O4 L Triglyme CAS 112-49-2 (2358)  
1,2-Bis(methoxyethoxy)ethane; CH3O.C2H4O.CH2.CH2.OC2H4.OCH3

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE non-aq 25°C 100% C K1=2.83 B2=3.73 1989BP a (62977)2207  
Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4  
\*\*\*\*\*

C8H19N L t-Octylamine CAS 107-45-9 (3212)  
1,1,3,3-Tetramethylbutylamine; (CH3)3C.CH2.C(CH3)2.NH2

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl alc/w 25°C 50% U K1=4.02 B2=8.16 1955ANc (63010)2208  
Medium: 50 mole% EtOH  
\*\*\*\*\*

C8H19N L (3810)  
Bis(2-methylpropyl)amine, di-isobutylamine; (CH3.CH(CH3).CH2)2NH

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ oth non-aq ? 100% U B2=8.8 1965MMa (63011)2209  
Method: coulometric titration. Medium: acetone, 0.1 M NaClO4  
\*\*\*\*\*

C8H19N L CAS 111-92-2 (3211)  
Di-s-butylamine; CH3.CH2.(CH3)CH.NH.CH(CH3).CH2.CH3

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl alc/w 25°C 50% U K1=3.38 B2=6.32 1955ANc (63014)2210  
Medium: 50 mole% EtOH  
\*\*\*\*\*

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

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ EMF non-aq 25°C 100% C I K1=3.26 B2= 5.94 1999THa (63018)2211  
Medium: acetonitrile. Method: Ag/Ag+ electrode.  
Also data for medium: DMSO

-----  
 Ag+ ISE non-aq 25°C 100% C H K1=2.66 B2=5.16 1987CBa (63019)2212  
 DH1= -31.80 kJ mol<sup>-1</sup>, DH(K2) = -29.80, DS1= -56.0, DS(K2) = -51.5.  
 Ag/AgCl electrode in DMSO  
 -----

Ag+ oth non-aq ? 100% U B2=10.18 1965MMa (63020)2213  
 Method: coulometric titration. Medium: acetone, 0.1 M NaClO4  
 -----

Ag+ gl alc/w 25°C 50% U K1=3.14 B2=6.56 1955ANc (63021)2214  
 Medium: 50 mole% EtOH  
 -----

\*\*\*\*\*  
 C8H19NO L CAS 96-80-0 (2664)  
 2-Di(isopropyl)aminoethanol; ((CH<sub>3</sub>)<sub>2</sub>CH)<sub>2</sub>N.CH<sub>2</sub>.CH<sub>2</sub>.OH  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sol	oth/un	20°C	0.0	U		B2=3.84	1961ALa (63027)2215	
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By glass electrode: B2=4.07  
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\*\*\*\*\*  
 C8H19O2PS2 HL CAS 2253-44-3 (2060)  
 O,O'-Dibutyl dithiophosphoric acid; (C<sub>4</sub>H<sub>9</sub>O)<sub>2</sub>P(S)SH  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	alc/w	25°C	90%	U		B2=15.62	1971TCa (63151)2216	
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Medium: 90% EtOH, 0.3 M NaClO4  
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\*\*\*\*\*  
 C8H19O2PS2 HL CAS 2253-52-3 (4584)  
 O,O-Di-isobutyl phosphorodithioic acid; ((CH<sub>3</sub>)<sub>2</sub>CH)<sub>2</sub>CH<sub>2</sub>O)<sub>2</sub>P(S)SH  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	alc/w	25°C	90%	U		B2=15.52	1971TCa (63164)2217	
-----	-----	-------	------	-----	---	--	----------	---------------------	--

Medium: 90% EtOH, 0.3 M NaClO4  
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\*\*\*\*\*  
 C8H20N2 L CAS 373-44-4 (5746)  
 1,8-Diaminooctane; NH<sub>2</sub>.(CH<sub>2</sub>)<sub>8</sub>.NH<sub>2</sub>  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	alc/w	25°C	100%	U	H	K1=6.93	1985BUb (63212)2218	
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Medium: MeOH, 0.05M Et<sub>4</sub>NClO<sub>4</sub>. DH=-47.2 kJ mol<sup>-1</sup>  
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\*\*\*\*\*  
 C8H20N2O3 L (5747)  
 1,11-Diamino-3,6,9-trioxaundecane; NH<sub>2</sub>.C<sub>2</sub>H<sub>4</sub>.O.C<sub>2</sub>H<sub>4</sub>.O.C<sub>2</sub>H<sub>4</sub>.O.C<sub>2</sub>H<sub>4</sub>.NH<sub>2</sub>  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	R4N.X	25°C	0.05M	U	H	K1=14.58	2002BSd (63227)2219	
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Method: Ag<sup>+</sup> ion selective electrode. Medium: propylene carbonate, 0.05 M  
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Et4NClO4. By calorimetry: DH(K1)=-102.6 kJ mol<sup>-1</sup>, DS(K1)=-66.4 J K<sup>-1</sup> mol<sup>-1</sup>

-----  
Ag+ ISE alc/w 25°C 100% U H K1=8.55 1985BUb (63228)2220  
Medium: MeOH, 0.05M Et4NClO4. DH=-58.4 kJ mol<sup>-1</sup>

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C8H20N2S L CAS 86108-47-6 (8373)  
1,9-Diamino-5-thianonane;

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

-----  
Ag+ gl KNO3 25°C 0.50M C 1984SGe (63238)2221

K(Ag+H2L)=3.53

K(Ag+2H2L)=5.85

Additional method: Ag electrode.

-----  
Ag+ cal KNO3 25°C 0.50M C H 1984STc (63239)2222

DH(Ag+H2L)=-34.3 kJ mol<sup>-1</sup>, DS(Ag+H2L)=-47 J K<sup>-1</sup> mol<sup>-1</sup>; DH(Ag+2H2L)=-69.9,

DS(Ag+2H2L)=-123.

\*\*\*\*\*

C8H20N2S3 L CAS 64691-71-0 (5748)  
1,11-Diamino-3,6,9-trithiaundecane; NH2-C2H4.S.C2H4.S.C2H4.S.C2H4.NH2

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

-----  
Ag+ ISE alc/w 25°C 100% U H K1=10.97 1985BUb (63247)2223

Medium: MeOH, 0.05M Et4NClO4. DH=-77.8 kJ mol<sup>-1</sup>

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C8H20N4 L Cyclen CAS 294-90-6 (10)  
1,4,7,10-Tetraazacyclododecane; cyclo(-(NH.CH2.CH2.)4-)

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

-----  
Ag+ EMF non-aq 25°C 100% U I K1=9.43 1996WPa (63276)2224

Medium: acetonitrile, 0.05 M NEt4ClO4. In propylene carbonate K1=11.3; in dimethylformamide K1=9.1

\*\*\*\*\*

C8H21N3 L (1068)  
2,8-Dimethyl-2,5,8-triazanonane; CH3.N(CH3).CH2.CH2.NH.CH2.CH2.N(CH3).CH3

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

-----  
Ag+ ISE NaNO3 25°C 1.30M C K1=4.14 B2=7.74 1984YMa (63317)2225

B(AgH2L)=18.81, B(AgHL)=12.59

B(AgH2L2)=24.15, B(AgHL2)=15.81

B(Ag2L2)=10.89

B(Ag3L2)=12.35, B(AgLOH)=-6.12

Measured using glass and Ag electrodes

\*\*\*\*\*

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
Ag+	ISE	non-aq	25°C	100%	C	H	K1=7.93 B2=9.72 B(Ag2L)=11.20 B(Ag2L2)=17.66 B(Ag3L2)=22.90	1990CBd (63399)	2226

Medium: DMSO, 0.1 M R4NX. By calorimetry: DH(K1)=-77 kJ mol<sup>-1</sup>, DS=106 J K<sup>-1</sup> m<sup>-1</sup>  
 DH(B2)=-88, DS=109; DH(Ag2L)=-114; DH(Ag2L2)=-162; DH(Ag3L2)=-224

\*\*\*\*\*  
 C8H23N5 L Tetren CAS 112-57-2 (715)  
 1,4,7,10,13-Pentaazatridecane (Tetraethylenepentamine);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	non-aq	25°C	100%	U	H	K1=10.45 B(Ag2L)=13.71 B(Ag3L2)=26.4	1997BTa (63451)	2227

Medium: DMSO, 0.1 M Et4NClO4. DH(K1)=-87.5 kJ mol<sup>-1</sup>, DS=-94; DH(Ag2L)=120.1,  
 DS=140; DH(Ag3L2)=245, DS=316

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	U	H	K1=10.59	1985BUB (63452)	2228

Medium: MeOH, 0.05M Et4NClO4. DH=-81.5 kJ mol<sup>-1</sup>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U		K1=7.4 B(AgHL)=8.8 B(AgH2L)=15.8 B(AgH3L)=21.3	1973HTc (63453)	2229

\*\*\*\*\*  
 C9H6NO4IS H2L Ferron CAS 547-91-1 (275)  
 7-Iodo-8-hydroxyquinoline-5-sulfonic acid; (HO)(HO3S)C9H4NI

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KN03	25°C	0.10M	C		K1=7.35	1985ZHa (63761)	2230

\*\*\*\*\*  
 C9H6N2O3 HL CAS 5437-99-0 (3865)  
 5-Nitro-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	diox/w	25°C	60%	U		K1=4.82	1973SCd (63857)	2231

Medium: 60% dioxan, 0.1 M NaClO4

\*\*\*\*\*  
 C9H6N2O6S H2L CAS 15851-63-3 (1433)  
 7-Nitro-8-hydroxyquinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	NaClO4	32°C	0.01M	C	I	K1=3.66	1995MBc (63902)	2232

Method: Ag electrode. Data for dioxane/H2O mixtures: K1=3.86 (20% dioxane)  
K1=4.35 (30% dioxane), K1=4.52 (40% dioxane), K1=4.60 (50% dioxane).

-----  
Ag+ EMF oth/un 40°C ? U K1=3.54 1972PBf (63903)2233  
\*\*\*\*\*  
C9H7N L CAS 119-65-3 (487)  
Isoquinoline;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	alc/w	20°C	100%	U		B2=4.05	1958PPa (64021)	2234

Medium: EtOH

Ag+	sp	non-aq	20°C	100%	U		B2=5.27	1958PPa (64022)	2235
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Medium: CH3CN

Ag+	ISE	alc/w	25°C	59%	U		B2=3.89	1952FYb (64023)	2236
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Medium: 59% w/w EtOH  
\*\*\*\*\*  
C9H7N L CAS 91-22-5 (1538)  
Quinoline;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	50%	U		B2=3.96	1980BTb (64043)	2237

Ag+	sp	alc/w	20°C	100%	U		B2=4.78	1958PPa (64044)	2238
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Medium: EtOH

Ag+	sp	non-aq	20°C	100%	U		K2=5.12	1958PPa (64045)	2239
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Medium: CH3CN

Ag+	gl	alc/w	25°C	50%	U		K1=1.79 B2=3.74	1955ANc (64046)	2240
-----	----	-------	------	-----	---	--	-----------------	-----------------	------

Medium: 50 mol% EtOH

Ag+	ISE	alc/w	25°C	59%	U		B2=4.10	1952FYb (64047)	2241
-----	-----	-------	------	-----	---	--	---------	-----------------	------

Medium 59% w/w EtOH

Ag+	ISE	alc/w	25°C	50%	U		B2=3.67	1934LAb (64048)	2242
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Medium: 50 mol% EtOH

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	diox/w	25°C	60%	U		K1=6.06	1973SCd (64190)	2243

Medium: 60% dioxan, 0.1 M NaClO4

Ag+	dis	NaClO4	22°C	0.10M	U		K1=5.20 B2=9.56	1965HAa (64191)	2244
-----	-----	--------	------	-------	---	--	-----------------	-----------------	------

\*\*\*\*\*

C9H7NO2S HL CAS 17893-44-6 (4672)  
(4-Cyanophenylthio)ethanoic acid; NC.C6H4.S.CH2.COOH

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE oth/un 20°C 0.10M U I K1=2.09 B2=3.8 1968PRa (64417)2245  
Acetate buffer. I=0.2, K(Ag+HL)=1.68

\*\*\*\*\*

C9H7NS HL Quinolinethiol CAS 491-33-8 (1028)  
8-Mercaptoquinoline;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl non-aq 25°C 100% U K1=13.8 B2=18.2 1984UBa (64640)2246  
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

-----  
Ag+ EMF non-aq 25°C 100% U K1=13.8 B2=18.20 1983UBa (64641)2247  
Medium: DMF, 0.1 M LiClO4

\*\*\*\*\*

C9H7O2F3S HL CAS 102687-63-6 (4674)  
(3-Trifluoromethylphenylthio)ethanoic acid; F3C.C6H4.S.CH2.COOH

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE oth/un 20°C 0.10M U I K1=2.42 B2=4.0 1968PRa (64744)2248  
Acetate buffer. I=0.2, K(Ag+HL)=1.76

\*\*\*\*\*

C9H8 L Indene CAS 95-13-6 (4589)  
Indene;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ nmr oth/un 30°C 100% U K1=0.20 1973DBa (64745)2249

-----  
Ag+ sol KNO3 25°C 0.10M U K1=0.93 B2=0.88 1969INa (64746)2250

\*\*\*\*\*

C9H8O4S H2L CAS 135-13-7 (4620)  
(2-Carboxyphenylthio)ethanoic acid; HOOC.C6H4.S.CH2.COOH

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE oth/un 20°C 0.10M C K1=3.13 1968PRa (65001)2251  
Medium: acetate buffer. K(Ag+H2L)=1.77, I=0.2

\*\*\*\*\*

C9H8O4S H2L CAS 18619-33-5 (4621)  
(3-Carboxyphenylthio)ethanoic acid; HOOC.C6H4.S.CH2.COOH

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

Ag+ ISE oth/un 20°C 0.10M C K1=2.90 B2=5.1 1968PRa (65005)2252  
Medium: acetate buffer. K(Ag+H2L)=1.94, I=0.2

\*\*\*\*\*

C9H8O4S H2L CAS 18619-34-6 (4622)  
(4-Carboxyphenylthio)ethanoic acid; H00C.C6H4.S.CH2.COOH

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

Ag+ ISE oth/un 20°C 0.10M C K1=2.80 B2=5.32 1968PRa (65007)2253  
Medium: acetate buffer. K(Ag+H2L)=2.47, I=0.2

\*\*\*\*\*

C9H8O4Se H2L CAS 39857-38-0 (4623)  
(4-Carboxyphenylseleno)ethanoic acid; H00C.C6H4.Se.CH2.COOH

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

Ag+ ISE oth/un 20°C 0.10M C K1=3.52 B2=6.02 1968PSa (65009)2254  
Medium: acetate buffer. K(Ag+H2L)=2.8, I=0.2

\*\*\*\*\*

C9H10 L CAS 98-83-9 (4590)  
alpha-Methylstyrene; C6H5.C(CH3):CH2

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

Ag+ sol KNO3 25°C 1.0M U T K1=0.91 B2=0.91 1969INa (65169)2255  
0 C: K1=1.35, K2=0.04

\*\*\*\*\*

C9H10 L CAS 766-90-5 (806)  
cis-beta-Methylstyrene; C6H5.CH:CH.CH3

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

Ag+ sol KNO3 25°C 1.0M U T K1=0.87 B2=0.87 1969INa (65170)2256  
0 C: K1=1.14, K2=0.15

\*\*\*\*\*

C9H10 L CAS 873-66-5 (807)  
trans-beta-Methylstyrene; C6H5.CH:CH.CH3

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

Ag+ sol KNO3 25°C 1.0M U T K1=0.73 B2=0.63 1969INa (65172)2257  
0 C: K1=1.01, K2=0.34

\*\*\*\*\*

C9H10NOClS L CAS 25092-90-4 (7032)  
(N-3-Chlorophenyl)-ethylthiolurethane;

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

Ag+ kin NaClO4 25°C 0.50M U T H K1=0.36 1993SSd (65174)2258  
K(AgL=AgH-1L+H)=-1.36



DH(K1)=-17 kJ mol<sup>-1</sup>, DS=23 J K<sup>-1</sup> mol<sup>-1</sup>. Also K at 13.8, 37.9, 51C. For N-3-methoxyphenyl- K1=1.40 at 25C (also at I=0.03-0.31 M); for N-phenyl- K1=0.97  
 \*\*\*\*\*

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
Ag+	ISE	mixed	25°C	82%	U		K1=7.60 B2=10.40 B3=11.87	1979TBa (65241)	2259

Medium: 82% formamide

Ag+	ISE	mixed	25°C	82%	U		K1=5.85 B2=10.89	1979TBd (65242)	2260
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Medium: 82% v/v DMFA/H2O; 0.2M KNO3

\*\*\*\*\*

C9H10O2 L Ethylbenzoate CAS 93-89-0 (3249)

Ethylbenzoate; C6H5.CO.OCH2CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	?	U		K1=-0.25 B2=-0.92	1950AKa (65383)	2261

\*\*\*\*\*

C9H10O2S HL CAS 18619-15-3 (4629)

(2-Tolylthio)ethanoic acid; CH3.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I	K1=2.73 B2=4.80	1968PRa (65385)	2262

Acetate buffer. I=0.2: K(Ag+HL)=2.16

\*\*\*\*\*

C9H10O2S HL CAS 3996-30-3 (4630)

(3-Tolylthio)ethanoic acid; CH3.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I	K1=2.86 B2=5.06	1968PRa (65387)	2263

Acetate buffer. I=0.2: K(Ag+HL)=2.30

\*\*\*\*\*

C9H10O2S HL CAS 3996-29-0 (4631)

(4-Tolylthio)ethanoic acid; CH3.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U	T	K1=2.91 B2=4.95	1969BLc (65391)	2264

Acetate buffer. 1.3-38.6 C  
 K1(1.3C)=3.29, K1(38.6C)=2.72, B2(1.3C)=5.64, B2(38.6C)=4.82

Ag+	ISE	oth/un	20°C	0.10M	U	I	K1=2.98 B2=5.30	1968PRa (65392)	2265
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Acetate buffer. I=0.2: K(Ag+HL)=2.34

\*\*\*\*\*

C9H1002S HL CAS 103-46-8 (3266)  
(Benzylthio)ethanoic acid; C6H5.CH2.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U	I		K1=3.67 B2=6.76	1968PSb (65399)	2266
Acetate buffer. I=0.2, K(Ag+HL)=2.92										

Ag+ ISE NaNO3 20°C 1.0M U B2=7.13 1944LAa (65400)2267  
\*\*\*\*\*

C9H1002S HL CAS 13205-49-7 (4628)  
4-(Ethylthio)benzoic acid; C2H5.S.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.20M	U			K1=2.82	1968PSb (65412)	2268
Acetate buffer.										

\*\*\*\*\*

C9H1002SSe HL (4679)  
(2-Methylthiophenylseleno)ethanoic acid; CH3.S.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=4.56 B2=8.30	1968PSa (65414)	2269
Acetate buffer. I=0.2, K(Ag+HL)=3.86										

\*\*\*\*\*

C9H1002S2 HL CAS 83167-33-3 (4632)  
(2-Methylthiophenylthio)ethanoic acid; CH3.S.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=3.95 B2=7.15	1968PRa (65416)	2270
Acetate buffer. I=0.2: K(Ag+HL)=3.14										

\*\*\*\*\*

C9H1002Se HL CAS 19188-12-6 (4633)  
(2-Tolylseleno)ethanoic acid; CH3.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=3.53 B2=6.37	1968PSa (65418)	2271
Acetate buffer. I=0.2: K(Ag+HL)=2.77										

\*\*\*\*\*

C9H1002Se HL (4634)  
(3-Tolylseleno)ethanoic acid; CH3.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I		K1=3.74 B2=6.64	1968PSa (65420)	2272
Acetate buffer. I=0.2: K(Ag+HL)=2.99										

\*\*\*\*\*

C9H10O2Se HL (4635)  
(4-Tolylseleno)ethanoic acid; CH3.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U T			K1=3.73 B2=6.54	1969BLc (65422)	2273
Acetate buffer. 1.6-38.5 C										
K1(1.6C)=4.19, K1(38.5C)=3.50, B2(1.6C)=7.23, B2(38.5C)=6.24										

Ag+	ISE	oth/un	20°C	0.10M	U I			K1=3.82 B2=6.72	1968PSa (65423)	2274
Acetate buffer. I=0.2: K(Ag+HL)=3.02										

\*\*\*\*\*

C9H10O3S HL CAS 18619-21-2 (4637)  
(2-Methoxyphenylthio)ethanoic acid; CH3O.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U I			K1=3.02 B2=6.19	1968PRa (65497)	2275
Acetate buffer. I=0.2: K(Ag+HL)=2.75										

\*\*\*\*\*

C9H10O3S HL CAS 3996-32-5 (4638)  
(3-Methoxyphenylthio)ethanoic acid; CH3O.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U T			K1=2.65 B2=4.60	1969BLc (65505)	2276
Acetate buffer. 1.3-38.6 C										
K1(1.3C)=2.99, K1(38.6C)=2.45, B2(1.3C)=5.22, B2(38.6C)=4.54										

Ag+	ISE	oth/un	20°C	0.10M	U I			K1=2.73 B2=4.90	1968PRa (65506)	2277
Acetate buffer. I=0.2: K(Ag+HL)=2.12										

\*\*\*\*\*

C9H10O3S HL CAS 3406-77-7 (4639)  
(4-Methoxyphenylthio)ethanoic acid; CH3O.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U T			K1=2.97 B2=5.24	1969BLc (65511)	2278
Acetate buffer. 1.3-38.4 C										
K1(1.3C)=3.37, K1(38.4C)=2.76, B2(1.3C)=5.87, B2(38.4C)=5.04										

Ag+	ISE	oth/un	20°C	0.10M	U I			K1=3.07 B2=5.49	1968PRa (65512)	2279
Acetate buffer. I=0.2: K(Ag+HL)=2.45										

\*\*\*\*\*

C9H10O3Se HL (4640)  
(2-Methoxyphenylseleno)ethanoic acid; CH3O.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U I			K1=3.72 B2=6.83	1968PSa (65519)	2280

Acetate buffer. I=0.2: K(Ag+HL)=3.02

\*\*\*\*\*

C9H10O3Se HL (4641)  
(3-Methoxyphenylseleno)ethanoic acid; CH3O.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U			K1=3.61 B2=6.53 K(Ag+HL)=2.90	1968PSa (65524)	2281

Acetate buffer

\*\*\*\*\*

C9H10O3Se HL (4642)  
(4-Methoxyphenylseleno)ethanoic acid; CH3O.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.10M	U T			K1=3.75 B2=6.68	1969BLc (65526)	2282
Acetate buffer. 1.2-38.3 C K1(1.2C)=4.23, K1(38.3C)=3.49, B2(1.2C)=7.38, B2(38.3C)=6.51										

Ag+	ISE	oth/un	20°C	0.10M	U I			K1=3.84 B2=6.79	1968PSa (65527)	2283
Acetate buffer. I=0.2: K(Ag+HL)=3.07										

\*\*\*\*\*

C9H11N L CAS 2294-75-9 (301)  
2-(But-3-enyl)pyridine; C5H4N.CH2.CH2.CH:CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KN03	25°C	0.10M	U			K1=2.72 B2=4.5	1974ILa (65659)	2284

\*\*\*\*\*

C9H11NO2 HL Phenylalanine CAS 63-91-2 (2)  
2-Amino-3-phenylpropanoic acid; H2N.CH(CH2.C6H5)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	KN03	25°C	0.10M	C T H			K1=4.3 K(AgL+H)=6.2 K(AgHL+H)=2.4	1981SBe (65890)	2285

Method: Ag/Ag+ electrode. Data for 25-45C. DH(K1)=58.9 kJ mol<sup>-1</sup>.

Ag+	ISE	oth/un	25°C	0.60M	U			K1=5.30 B2=7.8	1967AMb (65891)	2286
-----	-----	--------	------	-------	---	--	--	----------------	-----------------	------

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C9H11NO2 HL B-Phenylalanine CAS 614-19-7 (187)  
3-Amino-3-phenyl-propanoic acid; H2N.CH(C6H5).CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	oth/un	30°C	0.10M	U			K1=5.72 B2=8.42	1981PUa (66005)	2287

\*\*\*\*\*

C9H11NO3 H2L Tyrosine CAS 60-18-4 (4)

2-Amino-3-(4-hydroxyphenyl)propanoic acid; HO.C6H4.CH2.CH(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	oth/un	30°C	0.10M	U			K1=5.70 B2=8.30	1981PUa (66191)	2288
*****										
C9H11NO4S2		H3L						CAS 97512-83-9	(1330)	
N-Benzenesulfonyl-L-cysteine;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	diox/w	29°C	50%	M			K1=10.65	1981MUb (66440)	2289
*K(AgH2L)=-5.20										
*K(AgHL)=-10.65										
K(Ag+H3L=AgH2L+H)=0.26										

Medium: 50% v/v dioxane/H2O, 0.5 M NaClO4.

\*\*\*\*\*

C9H11NO5		H2L						CAS 57362-11-5	(3876)	
N-(2'-Furfuryl)iminodiethanoic acid; C4H3O.CH2.N(CH2.COOH)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO3	20°C	0.10M	U			K1=3.92	1963IFa (66447)	2290
*****										
C9H12		L		Pseudocumene				CAS 95-63-6	(3244)	
1,2,4-Trimethylbenzene; C6H3(CH3)3										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	sol	alc/w	25°C	50%	U			K1=0.12	19560Aa (66539)	2291
Medium: 50 mol% MeOH, 0.5 M NaNO3										
*****										
C9H12		L		Mesitylene				CAS 108-67-8	(3242)	
1,3,5-Trimethylbenzene; C6H3(CH3)3										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	sol	alc/w	25°C	50%	U T H			K1=-0.10	19560Aa (66540)	2292
Medium: 50 mol% MeOH, 0.5 M NaNO3. K1=0.09(1.6C); DS=-43 J K-1 mol-1.										
In aqueous soln. K1=0.19; DH(K1)=12.3, DS=-43										
*****										
C9H12		L		Cumene				CAS 98-82-8	(1177)	
Isopropylbenzene, 2-Phenylpropane; C6H5.CH(CH3)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	sol	alc/w	25°C	50%	U			K1=0.01	19560Aa (66542)	2293
Medium: 50 mol% MeOH, 0.5 M NaNO3										
*****										
C9H12		L		n-Propylbenzene				CAS 103-65-1	(3243)	

Propylbenzene; C6H5.CH2.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	dis	KN03	25°C	1.0M	U			K1=0.46	1950AKa (66544)	2294
-----	-----	------	------	------	---	--	--	---------	-----------------	------

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C9H12N2O HL Atrolactamidine CAS 27906-16-1 (3878)

2-Hydroxy-2-phenylpropanoylamidine; C6H5.C(OH)(CH3)C(:NH)NH2

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

Ag+	gl	KN03	25°C	0.10M	U				1970GSb (66557)	2295
-----	----	------	------	-------	---	--	--	--	-----------------	------

K(Ag+HL)=4.16

K(Ag+2HL)=8.86

K(Ag(HL)2+OH)=3.90

\*\*\*\*\*

C9H13N L CAS 609-72-3 (3861)

2-N,N-Trimethylaniline; CH3.C6H4.N(CH3)2

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

Ag+	ISE	alc/w	25°C	96%	U			K1=1.01	1961ALb (66773)	2296
-----	-----	-------	------	-----	---	--	--	---------	-----------------	------

Medium: 96% EtOH, <0.01 M

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C9H13N L Cumidine CAS 99-88-7 (3251)

4-Isopropylaniline; (CH3)2.CH.C6H4.NH2

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

Ag+	ISE	alc/w	20°C	50%	U			B2=3.69	1934LAb (66776)	2297
-----	-----	-------	------	-----	---	--	--	---------	-----------------	------

Medium: 50 mol% EtOH

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C9H13N5O L CAS 29767-70-2 (8165)

9-(1-Ethoxyethyl)adenine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	kin	NaCl04	40°C	0.01M	C				1981LOa (67104)	2298
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K(Ag+HL)=0.78

Medium: 0.0025 M HCl04

\*\*\*\*\*

C9H14N2S L CAS 80191-93-1 (8262)

2-[[2-(2-Pyridinyl)ethyl]thio]ethanamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	KN03	25°C	0.50M	C				1983Sgb (67165)	2299
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K(Ag+H2L)=1.94

K(Ag+2H2L)=2.51

K(Ag+HL)=3.15

$$K(2Ag+2HL)=8.50$$

Additional method: Ag ion selective electrode.  $K(2Ag+HL+L)=12.37$ ,  $B(Ag2L2)=15.16$ ,  $K(Ag+H2L+HL)=4.6$ ,  $K(Ag+2HL)=5.70$ ,  $K(2Ag+HL)=3.9$ ,  $B(Ag2L)=8.66$ .

-----  
 Ag+ cal KNO3 25°C 0.50M C H 1983SHe (67166)2300  
 $DH(Ag+H2L)=-27$  kJ mol<sup>-1</sup>,  $DH(Ag+2H2L)=-49$ ,  $DH(Ag+HL)=-29$ ,  $DH(Ag+2HL)=-60.5$ ,  
 $DH(Ag+HL+H2L)=-59$ ,  $DH(2Ag+2HL)=-93.7$ ,  $DH(2Ag+HL+L)=-115.8$ ,  $DH(2Ag+2L)=-134$   
 \*\*\*\*\*

C9H14N2S L CAS 80191-92-0 (352)  
 3-[(2-Pyridinylmethyl)thio]-1-propanamine;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	KNO3	25°C	0.50M	C			1983SGb (67169)2301	
							$K(Ag+H2L)=1.83$		
							$K(Ag+2H2L)=2.63$		
							$K(Ag+HL)=3.81$		
							$K(2Ag+2HL)=10.3$		

Additional method: Ag ion selective electrode.  $K(2Ag+HL+L)=13.18$ ,  $B(Ag2L2)=15.12$ ,  $K(Ag+H2L+HL)=5.4$ ,  $K(Ag+2HL)=7.44$ ,  $K(2Ag+HL)=4.71$ ,  $B(Ag2L)=8.72$

-----  
 Ag+ cal KNO3 25°C 0.50M C H 1983SHe (67170)2302  
 $DH(Ag+H2L)=-24$  kJ mol<sup>-1</sup>,  $DH(Ag+2H2L)=-46$ ,  $DH(Ag+HL)=-37$ ,  $DH(Ag+2HL)=-68.6$ ,  
 $DH(Ag+HL+H2L)=-66$ ,  $DH(2Ag+2HL)=-100$ ,  $DH(2Ag+HL+L)=-121$ ,  $DH(2Ag+2L)=-127.4$   
 \*\*\*\*\*

C9H14O2 L CAS 86616-78-6 (4603)  
 2-Acetylcycloheptanone;

-----  

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

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Ag+	gl	diox/w	30°C	75%	U		$K1=6.67$	1967SUa (67361)2303	
								*****	
								(4604)	
								C9H15N2+	
								4'-Aminobutylpyridinium cation	
								L+	

-----  

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

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Ag+	gl	KNO3	25°C	0.50M	U		$K1=3.24$ $B2=6.61$	1969PBa (67598)2304	
								*****	
								C9H16	
								CAS 2539-75-5 (3851)	
								1-(2'-Propyl)cyclohexene;	

-----  

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

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Ag+	dis	non-aq	30°C	100%	U		$K1=0.02$	1962GHa (67601)2305	
								Medium: ethylene glycol, 1.77 M AgNO3. Method: gas chromatography	
								*****	

C9H16O4S2 H2L CAS 32386-31-5 (3273)  
 Pentamethylenedithiodiethanoic acid;  $HOOC.CH2.S(CH2)5.S.CH2.COOH$

```

-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE NaNO3  20°C  1.0M U          K1=6.3   B2=8.9   1944LAa (67801)2306
*****
C9H17N          L          CAS 2051-28-7 (3256)
Decahydroquinoline;

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        gl  alc/w  25°C  50% U          K1=3.57  B2=7.04  1955ANc (67803)2307
Medium: 50 mol% EtOH
*****
C9H18N2O3S2    HL    D-Met-SMC          CAS 95657-16-2 (731)
D-Methionyl-S-methylcysteine; H2N.CH(CH2.CH2.S.CH3).CO.NH.CH(CH2.S.CH3).COOH

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        gl  KNO3   25°C  0.10M C          K1=5.77  B2=8.61  1984LPa (67920)2308
                        B(AgHL)=12.40
                        B(AgH2L)=17.1
                        B(Ag2L2)=14.45
                        B(Ag2HL2)=21.07
*****
C9H18N2O3S2    HL    Met-SMC          CAS 95657-15-1 (730)
Methionyl-S-methylcysteine; H2N.CH(CH2.CH2.S.CH3).CO.NH.CH(CH2.S.CH3).COOH

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        gl  KNO3   25°C  0.10M C          K1=5.72  B2=8.1   1984LPa (67923)2309
                        B(AgHL)=12.05
                        B(AgH2L)=16.61
                        B(Ag2L2)=14.19
                        B(Ag2HL2)=20.84
*****
C9H18N2O3S2    HL    SMC-D-Met          CAS 95657-18-4 (733)
S-Methylcysteiny-D-methionine; H2N.CH(CH2.S.CH3)CO.NH.CH(CH2.CH2.S.CH3).COOH

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        gl  KNO3   25°C  0.10M C          K1=5.86  B2=9.40  1984LPa (67925)2310
                        B(AgHL)=11.76
                        B(AgH2L)=15.51
                        B(Ag2L2)=14.74
                        B(Ag2HL2)=20.66
*****
C9H18N2O3S2    HL    SMC-L-Met          CAS 95657-17-3 (732)
S-Methylcysteiny-L-methionine; H2N.CH(CH2.S.CH3)CO.NH.CH(CH2.CH2.S.CH3).COOH

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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-----
Ag+      gl  KNO3   25°C 0.10M C      K1=6.01  B2=9.66  1984LPa (67929)2311
                        B(AgHL)=11.02
                        B(AgH2L)=14.55
                        B(Ag2L2)=14.81
                        B(Ag2HL2)=20.19

```

```

*****
C9H18N2O4S2      H2L      CAS 50727-79-2 (7201)
1,2-Dimercaptopropane-S,S'-bis(3-(2-amino)propanoic
acid);H00CCH(NH2)CH2SCH2CH(CH3)SCH2CH(NH2)C00

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

```

```

Ag+      gl  KNO3   20°C 0.10M U      K1=9.05      1975SSf (67944)2312
                        K(AgL)=5.95

```

```

*****
C9H18N2O5S2      H2L      CAS 50727-81-6 (7202)
1,2-Dimercaptopropanol-2-S,S'-bis(3-(2-amino)propanoic
acid);H00CCH(NH2)CH2SCH(CH3)CH(OH)SCH2CH(N

```

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

```

```

Ag+      gl  KNO3   20°C 0.10M U      K1=8.97      1975SSf (67946)2313
                        K(AgL+H)=5.97

```

```

*****
C9H20N2S2      L      (7058)
7-Methyl-1,4-dithia-7,10-diazacyclododecane;

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

Ag+      gl  KNO3   25°C 0.10M M      K1=10.95  B2=14.11  1995RKa (68070)2314
                        B(AgHL)=14.40
                        B(AgH2L)=16.4
                        B(AgHL2)=22.65

```

```

*****
C9H20O2S2      L      CAS 78011-02-6 (4661)
3,9-Dithiaundecan-1,11-diol; (H0.CH2.CH2.S.CH2.CH2)2CH2

```

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

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```

Ag+      ISE KNO3   20°C 1.0M U  H      1970WSa (68119)2315
At pH3. DH1=-56.9 kJ mol-1, DS1=-82.4 J K-1 mol-1, DH2=-38.9, DS2=-86.9
DH(AgL+Ag)=-14.5, DS=-6.3

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*****
C9H21NO3      L      CAS 122-20-3 (946)
Tri-isopropanolamine; (CH3.CH(OH).CH2)3N

```

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Ag+      gl  oth/un 20°C 0.0 U      K1=2.30  B2=4.27  1964AKa (68142)2316

```

By solubility: B2=4.27

\*\*\*\*\*

C9H21NS L (1223)  
1-Diisopropylaminoethyl-methylsulfide; ((CH3)2CH)2N.CH2.CH2.S.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.50M	U		K1=4.33 B2=7.62 B(2Ag+L)=6.25 B(Ag+HL)=2.61 B(Ag+HL+L)=6.31 B(Ag+2HL)=4.40	1977TGa	(68146)2317

Ag+ cal KNO3 25°C 0.50M C H 1977TGc (68147)2318  
DH(Ag+HL)=-29.5 kJ mol<sup>-1</sup>, DH(Ag+2HL)=-44.18.

\*\*\*\*\*

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
Ag+	EMF	NaNO3	25°C	1.3M	C		K1=4.67 B2= 6.50 B(AgHL)=12.10 B(AgH2L2)=24.04 B(Ag2L2)=9.940 B(Ag3L2)=12.10	1983YMb	(68276)2319

Ag electrode. B(AgH-1L)=-6.59

\*\*\*\*\*

C10H7NOS2 HL CAS 5806-42-6 (3921)  
5-Benzylidene-2-thioxo-1,3-thiazolidin-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	NaClO4	20°C	0.10M	U		K1=8.35 B2=15.85	1965NKb	(68543)2320

\*\*\*\*\*

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	diox/w	30°C	75%	U		K1=7.74	1957CFa	(68565)2321

\*\*\*\*\*

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	diox/w	30°C	50%	U	I	K1=7.55	1957CFa	(68633)2322

In 75% dioxan K1=7.74  
\*\*\*\*\*

C10H7NO2 HL CAS 86-59-9 (873)  
Quinoline-8-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	oth/un	25°C	0.0	U		K1=2.13	1958LUa (68746)	2323

\*\*\*\*\*

C10H8 L Naphthalene CAS 91-20-3 (3289)  
Naphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	non-aq	25°C	100%	U		K1=0.450 B2=0.48	1991PZa (69167)	2324
Ag+	sol	KN03	20°C	1.0M	U T		K1=0.505 B(Ag2L)=-0.015	1954KLa (69168)	2325

K1=0.467(25 C),0.436(30 C); B(Ag2L)=-0.042(25 C),-0.063(30 C)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	none	25°C	0.0	U		K1=0.49 B2=0.53	1949AKa (69169)	2326

\*\*\*\*\*

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
Ag+	ISE	mixed	25°C	0.10M	C I		K1=4.04 B2= 7.79	2002PRa (69446)	2327

Ag-electrode; Medium:0.1 M NaCl04 in 0.4 mol parts DMFA in H2O  
for 100% H2O K1=4.59; K2=4.43; for 100% DMFA K1=3.52; K2=3.32

Ag+	gl	mixed	25°C	0.1M	U I		K1=2.95 B2= 5.90	1998SGb (69447)	2328
-----	----	-------	------	------	-----	--	------------------	-----------------	------

In 100% H2O K1=3.64  
In 100% DMSO K1=2.25  
in 100% H2O B2=6.7  
In !00% DMSO B2=4.5

Medium: 0.1M Et4NC104 in 0.5 mol parts DMSO in H2O;  
For 0.1 M Et4NC104 in 0.3 mol parts EtOH in H2O K1=2.07; B2=5.4

Ag+	sp	non-aq	25°C	100%	U I		K1=2.4	1985MKb (69448)	2329
-----	----	--------	------	------	-----	--	--------	-----------------	------

Medium: DMSO. In DMF: K1=3.4; MeCN: 3.6; MeOH: 4.3

Ag+	ISE	KN03	25°C	0.10M	C		K1=3.44 B2=6.78	1985YWa (69449)	2330
-----	-----	------	------	-------	---	--	-----------------	-----------------	------

Ag+	ISE	non-aq	?	100%	U		B2=5.33	1984IGa (69450)	2331
-----	-----	--------	---	------	---	--	---------	-----------------	------

Medium: CH3CN

Ag+	sp	NaN03	25°C	1.00M	U T H			1981Hwa (69451)	2332
-----	----	-------	------	-------	-------	--	--	-----------------	------

K(AgL2+H=AgL+HL)=-0.086  
5-45 C. DH=11.5 kJ mol<sup>-1</sup>, DS=-9 J K<sup>-1</sup> mol<sup>-1</sup>

Ag+	ISE	non-aq	25°C	100%	U		K1=7.1 B2=13.1	1981TLa (69452)	2333
-----	-----	--------	------	------	---	--	----------------	-----------------	------

Medium: Propylene carbonate

-----  
Ag+ ISE alc/w 25°C 25% U I B2=7.59 1973BNb (69453)2334  
Medium: EtOH, 0.2 M LiNO3. In 50% EtOH: B2=7.34; 75%: B2=7.46; 96%: B2=7.74  
-----

Ag+ ISE mixed 25°C 25% U I B2=7.48 1973BNb (69454)2335  
Medium: PrOH, 0.2 M LiNO3. 50% PrOH: B2=7.27; 75%: B2=7.36; 90%: 7.66  
In 25% acetone: B2=7.48; 50%: B2=7.46; 75%: B2=7.61; 90%: B2=7.72  
-----

Ag+ ISE oth/un 25°C 1.0M U K1=3.0 B2=7.11 1972KMf (69455)2336  
-----

Ag+ ISE KNO3 35°C 0.10M U K1=3.03 B2=6.67 1967Lub (69456)2337  
-----

Ag+ ISE KNO3 20°C 0.10M U T H K1=3.84 B2=7.37 1958CSc (69457)2338  
K1=3.70(25 C), 3.61(30 C), 3.53(35 C), 3.46(40 C); B2=7.22, 7.08, 6.93, 6.80  
DH(K1)=-32.0 kJ mol<sup>-1</sup>, SD=-36.6; DH(K2)=-17.1, DS=10.0  
-----

Ag+ sp alc/w 20°C 100% U B2=8.89 1958PPa (69458)2339  
Medium: EtOH  
-----

Ag+ gl none 25°C 0.0 U B2=6.8 1954SSa (69459)2340  
\*\*\*\*\*  
C10H9N L CAS 134-32-7 (3891)  
1-Aminonaphthalene;  
-----

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

Ag+ ISE alc/w 25°C 100% U K1=2.20 B2=2.76 1960ALa (69991)2341  
Medium: EtOH  
\*\*\*\*\*

C10H9NS HL CAS 10222-10-3 (1029)  
2-Methyl-8-mercaptoquinoline;  
-----

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

Ag+ gl non-aq 25°C 100% U K1=14.7 B2=19.3 1984UBa (70255)2342  
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a  
-----

Ag+ EMF non-aq 25°C 100% U K1=14.7 B2=19.30 1983UBa (70256)2343  
Medium: DMF, 0.1 M LiClO4  
\*\*\*\*\*

C10H9NS HL CAS 13982-83-7 (1030)  
4-Methyl-8-mercaptoquinoline;  
-----

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

Ag+ gl non-aq 25°C 100% U K1=15.7 B2=21.0 1984UBa (70272)2344  
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a  
-----

Ag+ EMF non-aq 25°C 100% U K1=15.7 B2=21.00 1983UBa (70273)2345

Medium: DMF, 0.1 M LiClO4

\*\*\*\*\*

C10H9NS HL CAS 15759-04-3 (1031)

6-Methyl-8-mercaptoquinoline;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl non-aq 25°C 100% U K1=14.9 B2=20.4 1984UBa (70286)2346  
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a  
-----

Ag+ EMF non-aq 25°C 100% U K1=14.9 B2=20.40 1983UBa (70287)2347  
Medium: DMF, 0.1 M LiClO4

\*\*\*\*\*

C10H9NS HL CAS 15759-05-4 (1032)

7-Methyl-8-mercaptoquinoline;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl non-aq 25°C 100% U K1=15.1 B2=20.9 1984UBa (70298)2348  
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a  
-----

Ag+ EMF non-aq 25°C 100% U K1=15.1 B2=20.90 1983UBa (70299)2349  
Medium: DMF, 0.1 M LiClO4

\*\*\*\*\*

C10H9N3 L Dipyrindylamine CAS 1202-34-2 (2428)

(2,2'-Dipyrindyl)amine; C5H4N.NH.C5H4N

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

Ag+ ISE alc/w 25°C 50% U B2=3.23 1934LAb (70331)2350

Medium: 50 mol% EtOH

\*\*\*\*\*

C10H10 L CAS 447-53-0 (4691)

1,2-Dihydronaphthalene;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ sol KNO3 25°C 1.0M U K1=1.45 B2=1.60 1969INa (70462)2351  
\*\*\*\*\*

C10H10O2 HL Benzoylacetone CAS 93-91-4 (197)

1-Phenylbutane-1,3-dione; C6H5.CO.CH2.CO.CH3

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

Ag+ gl diox/w 30°C 75% U K1=5.43 1967SUa (70692)2352

\*\*\*\*\*

C10H10O2S HL CAS 17892-66-6 (4724)

4-(Prop-1-enylthio)benzoic acid; CH2:CH.CH2.S.C6H4.COOH

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

-----  
Ag+ ISE oth/un 25°C 0.20M U K1=2.76 1968PSb (70792)2353  
Acetate buffer

\*\*\*\*\*

C10H1004AsCl H2L (4788)  
Bis(carboxymethyl)(2-chlorophenyl)arsine; (H00C.CH2)2.As.(C6H4Cl)

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

Ag+ ISE KNO3 20°C 0.10M U K1=5.20 1972FGb (70825)2354  
K(Ag+HL)=4.13  
K(Ag+H2L)=4.045

\*\*\*\*\*

C10H1004AsCl H2L (4789)  
Bis(carboxymethyl)(4-chlorophenyl)arsine; (H00C.CH2)2.As.(C6H4Cl)

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

Ag+ ISE KNO3 20°C 0.10M U K1=5.92 1972FGb (70827)2355  
K(Ag+HL)=4.96  
K(Ag+H2L)=4.466

\*\*\*\*\*

C10H1004S2 H2L CAS 36198-83-1 (4728)  
1,2-Phenylenebis(thioethanoic acid); C6H4(S.CH2.COOH)2

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

Ag+ ISE oth/un 25°C 0.20M U K1=3.97 1971FPa (70829)2356  
Medium: 0.2 M acetate buffers at pH 1.5 and 5.95

\*\*\*\*\*

C10H11N03S H2L Benzoylcysteine CAS 60199-84-0 (2580)  
N-Benzoyl-2-amino-3-mercaptopropanoic acid; C6H5.CO.NHCH(COOH)CH2SH

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

Ag+ ISE NaNO3 25°C 0.15M U K1=11.75 1976ZNa (70953)2357  
K(AgL+H)=4.88

Method: Ag-electrode

\*\*\*\*\*

C10H11N04 H2L CAS 1137-73-1 (2567)  
N-Phenyliminodiethanoic acid; C6H5.N(CH2.COOH)2

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

Ag+ gl KNO3 20°C 0.10M U K1=1.0 1964PIa (70985)2358

\*\*\*\*\*

C10H1104As H2L CAS 51525-18-9 (3907)  
As-Phenylarsinodiethanoic acid; C6H5.As(CH2.COOH)2

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



Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KNO3	25°C	1.0M	U		K1=0.48 B2=0.59	1969INa (71147)	2366

\*\*\*\*\*

C10H12N2O4 H2L CAS 16598-05-3 (967)  
 2-Pyridylmethyliminodiethanoic acid; C5H4N.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	C	H	K1=5.64 B(AgHL)=9.73 B(Ag2L2)=14.83 B(Ag2L)=7.15	1981ANb (71234)	2367

Ag+	ISE	oth/un	25°C	0.10M	M		K1=6.03 B2=9.5	1975IPa (71235)	2368
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Medium: 0.10M K-acetate

Ag+	gl	KNO3	20°C	0.10M	U		K1=6.09	1963IFc (71236)	2369
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C10H12O2S HL CAS 2899-66-3 (3324)  
 3-(Benzylthio)propanoic acid; C6H5.CH2.S.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	NaNO3	20°C	1.0M	U		B2=7.34	1944LAa (71640)	2370

\*\*\*\*\*

C10H12O2S HL CAS 21213-10-5 (4738)  
 4-(n-Propylthio)benzoic acid; CH3.CH2.CH2.S.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.20M	U		K1=2.82	1968PSb (71641)	2371

Acetate buffer.

\*\*\*\*\*

C10H12O3Se HL (4739)  
 (2-Ethoxyphenylseleno)ethanoic acid; C2H5O.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I	K1=3.78 B2=7.07	1968PSa (71648)	2372

Acetate buffer. I=0.2, K(Ag+HL)=2.93

\*\*\*\*\*

C10H12O3Se HL (4740)  
 (4-Ethoxyphenylseleno)ethanoic acid; C2H5O.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	20°C	0.10M	U	I	K1=3.85 B2=6.78	1968PSa (71649)	2373

Acetate buffer. I=0.2, K(Ag+HL)=3.09

\*\*\*\*\*



C10H13N L CAS 100190-73-6 (302)  
2-(Pent-4-enyl)pyridine; C5H4N.CH2.CH2.CH2.CH:CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	U		K1=2.27 B2=4.37	1974ILa (71690)	2374

C10H13NO L (5523)  
3-Acetyl-2,4,6-trimethylpyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	NaNO3	25°C	0.50M	C		K1=2.13	1984ERa (71696)	2375

C10H13NS L (7469)  
4-Phenyl-1-thia-4-azacyclohexane; C6H5.C4H8NS

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	U		K1=1.71 B2= 3.01	1999ISa (71779)	2376

Medium: CH3CN. 0.1 M Me4NC104

C10H13N5O4 L Adenosine CAS 58-61-7 (2154)  
Adenosine, Adenine-9-beta-D-ribofuranoside;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.00	U		K1=2.02 B2=3.86	1968PGb (71933)	2377

C10H14 L Prehnitene CAS 488-23-3 (3292)  
1,2,3,4-Tetramethylbenzene; C6H2(CH3)4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	alc/w	25°C	50%	U		K1=0.23	19560Aa (72034)	2378

Medium: 50% MeOH, 0.5 M NaNO3

C10H14 L Isodurene CAS 527-53-7 (3293)  
1,2,3,5-Tetramethylbenzene; C6H2(CH3)4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	alc/w	25°C	50%	U		K1=0.06	19560Aa (72035)	2379

Medium: 50% MeOH, 0.5 M NaNO3

C10H14 L Durene CAS 95-93-2 (2828)  
1,2,4,5-Tetramethylbenzene; C6H2.(CH3)4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ sol diox/w 25°C 50% U K1=0.06 19560Aa (72036)2380  
Medium: 50% MeOH, 0.5 M NaNO3

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C10H14 L CAS 141-93-5 (3290)

1,3-Diethylbenzene; C2H5.C6H4.C2H5

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

Ag+ sol alc/w 25°C 50% U K1=0.03 19560Aa (72038)2381

Medium: 50% MeOH, 0.5 M NaNO3

\*\*\*\*\*

C10H14 L CAS 98-06-0 (3291)

t-Butylbenzene; C6H5.C(CH3)3

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

Ag+ sol alc/w 25°C 50% U K1=0.05 19560Aa (72039)2382

Medium: 50% MeOH, 0.5 M NaNO3

\*\*\*\*\*

C10H15N L CAS 91-66-7 (3897)

N,N-Diethylaniline; C6H5.N(CH2.CH3)2

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

Ag+ ISE alc/w 25°C 96% U K1=1.28 1961ALb (72630)2383

Medium: 96% EtOH, <0.01 M

\*\*\*\*\*

C10H15N04BrPS2 HL (4801)

(4-Bromo)phenylsulfonylamidothiophosphoric acid 0,0-diethyl ester;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE alc/w 20°C 100% U K1=10.15 B2=13.15 1968ZAb (72656)2384

Ag+ ISE alc/w 20°C 100% U K1=11.0 1968ZGa (72657)2385

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C10H15N04ClPS2 HL (4800)

(4-Chloro)phenylsulfonylamidothiophosphoric acid 0,0-diethyl ester;

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

Ag+ ISE alc/w 20°C 100% U K1=11.0 1968ZGa (72659)2386

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C10H15N04FPS2 HL (4803)

(4-Fluoro)phenylsulfonylamidothiophosphoric acid 0,0-diethyl ester;

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

Ag+ ISE alc/w 20°C 100% U K1=10.36 B2=13.30 1968ZAb (72661)2387

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Ag+ ISE alc/w 20°C 100% U K1=11.3 1968ZGa (72662)2388  
\*\*\*\*\*

C10H15N04IPS2 HL (4802)  
(4-Iodo)phenylsulfonylamidothiophosphoric acid 0,0-diethyl ester;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE alc/w 20°C 100% U K1=10.9 B2=17.5 1968ZGa (72664)2389  
\*\*\*\*\*

C10H16N04PS2 HL (4798)  
Phenylsulfonylamidothiophosphoric acid 0,0-diethyl ester;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE alc/w 20°C 100% U K1=11.5 1968ZGa (73025)2390  
\*\*\*\*\*

C10H16N203S HL Vitamin H CAS 58-85-5 (410)  
D-Biotin (Coenzyme R);

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ nmr NaClO4 27°C 3.00M U T K1=4.20 1982SSb (73045)2391  
Medium: D2O. In DMF: K1=2.09. At 34 C in d6-DMSO, 0.01 M DNO3: K1=1.45  
\*\*\*\*\*

C10H16N208 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  
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Ag+ gl KNO3 25°C 1.00M C K1=6.50 1992ANa (73432)2392  
B(AgHL)=12.30  
B(Ag2L)=7.60

-----  
Ag+ ISE NaClO4 25°C 1.00M U I K1=5.42 1989MIa (73433)2393  
K(AgL+H)=5.95

-----  
Ag+ ISE KNO3 25°C 0.10M C M K1=7.32 1985YWa (73434)2394  
K(AgL+H)=6.19

-----  
Ag+ gl KNO3 20°C 0.10M U K1=7.31 1981SKf (73435)2395  
K(AgL+H)=6.01

-----  
Ag+ EMF KNO3 25°C 0.10M C K1=7.2 1979BCb (73436)2396  
K(AgL+H)=6.5  
K(AgHL+H)=4.5

Method: Ag electrode.

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Ag+ ISE oth/un 25°C 0.01M C H K1=7.05 1978RLb (73437)2397

Method: silver sulfide electrode. Medium: 0.01 M KOH.

By calorimetry: DH(K1)=-23.8 kJ mol<sup>-1</sup>, DS(K1)=53.0 J K<sup>-1</sup> mol<sup>-1</sup>.

Ag+	ISE	KNO3	25°C	0.10M	C	H	K1=6.99	1978SLa (73438)	2398
By calorimetry: DH(K1)=-23.8 kJ mol <sup>-1</sup> , DS=+53.0									
Ag+	cal	KNO3	20°C	0.1M	C		K1=7.32 DH1= -41.1 kJ/mol	1976ANb (73439)	2399
Ag+	ISE	KNO3	25°C	0.10M	U	M T	K1=7.31 K(AgL+H)=6.49	1968WRa (73440)	2400
Ternary complexes with oxalic acid									
Ag+	EMF	oth/un	35°C	0.01M	U	T	K1=7.15 K(Ag+HL)=3.29	1967RLa (73441)	2401
Method: silver-sensitive glass electrode. K1=7.37(15 C),7.28(25 C); K(Ag+HL)=3.46(15 C),3.36(25 C)									
Ag+	gl	KNO3	20°C	0.10M	U		K1=7.72 B2=11.72	1964JCa (73442)	2402
Ag+	gl	KNO3	20°C	0.10M	U		K1=7.32 K(Ag+HL)=3.07	1964PCa (73443)	2403
Ag+	dis	NaClO4	20°C	0.10M	U		K1=7.11	1963STc (73444)	2404
Medium: KClO4									
*****									
C10H16N2S L CAS 80191-94-2 (8263)									
3-[[2-(2-Pyridinyl)ethyl]thio]-1-propanamine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.50M	C		K(Ag+H2L)=2.66 K(Ag+2H2L)=3.88 K(Ag+HL)=3.76 K(2Ag+2HL)=9.89	1983SGb (74392)	2405
Additional method: Ag ion selective electrode. K(2Ag+HL+L)=12.82, B(Ag2L2)=14.74, K(Ag+H2L+HL)=3.88, K(Ag+2HL)=6.55, K(2Ag+HL)=5.2, B(Ag2L)=9.04									
Ag+	cal	KNO3	25°C	0.50M	C	H		1983SHe (74393)	2406
DH(Ag+H2L)=-34 kJ mol <sup>-1</sup> , DH(Ag+2H2L)=-63, DH(Ag+HL)=-36, DH(Ag+2HL)=-64, DH(Ag+HL+H2L)=-69, DH(2Ag+2HL)=-107, DH(2Ag+HL+L)=-117, DH(2Ag+2L)=-122									
*****									
C10H16O8P2 H4L (6907)									
1,2-Diphosphinoethane-P,P,P'P'-tetraethanoic acid; (HOOC.CH2)2P.CH2.CH2.P(CH2.COOH)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	NaClO4	25°C	0.10M	C		K1=9.36 B(Ag2L)=14.83 B(AgHL)=13.85	1992PPb (74937)	2407

B(AgH2L)=17.44

B(AgH3L)=19.89

B(Ag2HL)=18.8, B(Ag2H2L)=22.2

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Ag+ gl NaClO4 25°C 0.10M C 1982PPc (74938)2408

B(AgHL)=13.85

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C10H17N04 H2L CAS 2848-06-8 (3916)

N-(Cyclohexyl)iminodiethanoic acid; C6H11.N(CH2.COOH)2

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

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Ag+ gl KNO3 20°C 0.10M U K1=4.94 1963IFb (74968)2409

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C10H17N05 H2L CAS 6243-06-7 (3326)

N-(2-Hydroxycyclohexyl)iminodiethanoic acid; HO.C6H10.N(CH2.COOH)2

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

-----  
Ag+ gl KNO3 20°C 0.10M U K1=3.83 1963IFb (74983)2410

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C10H17N05 H2L (3917)

N-(Tetrahydropyran-2-ylmethyl)iminodiethanoic acid;

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

-----  
Ag+ gl KNO3 20°C 0.10M U K1=4.83 1963IFa (74995)2411

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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

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Ag+ ISE KNO3 20°C 0.10M C K1=12.3 B2=14.30 1999AKa (75098)2412

Method: Ag2S electrode. K(H+L)=8.8.

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Ag+ ISE NaClO4 25°C 0.50M U 1969ZZa (75099)2413

K(Ag+H2L)=15.1

K(Ag+AgHL)=6.6

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C10H17N2+ (4709)

5'-Aminopentylpyridinium cation

L+

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

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Ag+ gl KNO3 25°C 0.50M U K1=3.49 B2=7.22 1969PBa (75174)2414

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C10H18N2O5 L CAS 136809-46-6 (8929)

1,4,10-Trioxa-7,13-diazacyclopentadecane-6,14-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	R4N.X	25°C	0.05M	U	H	K1=2.52	2002BSd (75220)	2415
Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M Et4NClO4. By calorimetry: DH(K1)=-4.2 kJ mol <sup>-1</sup> , DS(K1)=33.9 J K <sup>-1</sup> mol <sup>-1</sup> . *****									
C10H18N2O7		H3L		HEDTA			CAS 150-39-0	(392)	
N-(Hydroxyethyl)diaminoethane-N,N',N'-triethanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KN03	25°C	0.10M	U		K1=6.71	1968WRa (75303)	2416
*****									
C10H18N4		L					CAS 46323-29-9	(3312)	
6,7,8,9-Tetrahydro-10-isopropyl-7-methyl-5H-tetrazoloazepine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	non-aq	25°C	100%	U		B2=2.22	1959PHa (75550)	2417
Medium: MeCN *****									
C10H18N4		L					CAS 89991-85-5	(3311)	
6,7,8,9-Tetrahydro-9-isopropyl-7-methyl-5H-tetrazoloazepine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	non-aq	25°C	100%	U		B2=2.19	1959PHa (75551)	2418
Medium: MeCN *****									
C10H18N4		L					CAS 4643-29-9	(3309)	
8-s-Butyl-6,7,8,9-tetrahydro-5H-tetrazoloazepine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	non-aq	25°C	100%	U		B2=2.18	1959PHa (75552)	2419
Medium: CH3CN *****									
C10H18N4		L					CAS 25717-83-3	(3310)	
8-t-Butyl-6,7,8,9-tetrahydro-5H-tetrazoloazepine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	non-aq	25°C	100%	U		B2=2.14	1959PHa (75553)	2420
Medium: CH3CN *****									
C10H18O4S2		H2L					CAS 79695-59-3	(3327)	
Hexamethylenedithiodiethanoic acid; HOOC.CH2.S(CH2)6.S.CH2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

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Ag+ ISE NaNO3 20°C 1.0M U K1=6.0 B2=8.6 1944LAa (75608)2421  
\*\*\*\*\*

C10H20N2O3 HL Val-D-Val CAS 95657-14-0 (725)  
L-Valyl-D-valine; H2N.CH(CH(CH3)2).CO.NH.CH(CH(CH3)2).COOH  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ gl KNO3 25°C 0.10M C K1=3.24 B2=7.24 1984LPa (75728)2422  
\*\*\*\*\*

C10H20N2O3 HL Val-Val CAS 3918-94-3 (724)  
L-Valyl-L-valine; H2N.CH(CH(CH3)2).CO.NH.CH(CH(CH3)2).COOH  
-----

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

Ag+ gl KNO3 25°C 0.10M C K1=3.03 B2=6.93 1984LPa (75738)2423  
\*\*\*\*\*

C10H20N2O3S2 HL Met-D-Met CAS 89680-20-6 (729)  
Methionyl-D-methionine; H2N.CH(CH2.CH2.S.CH3).CO.NH.CH(CH2.CH2.S.CH3).COOH  
-----

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

Ag+ gl KNO3 25°C 0.10M C K1=5.71 1984LPa (75757)2424  
B(AgHL)=12.40  
B(AgH2L)=17.3  
B(Ag2L2)=14.51  
B(Ag2HL2)=21.17  
\*\*\*\*\*

C10H20N2O3S2 HL Met-Met CAS 89680-18-2 (728)  
Methionyl-methionine; H2N.CH(CH2.CH2.S.CH3).CO.NH.CH(CH2.CH2.S.CH3).COOH  
-----

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

Ag+ gl KNO3 25°C 0.10M C K1=5.81 B2=8.7 1984LPa (75763)2425  
B(AgHL)=11.86  
B(AgH2L)=16.31  
B(Ag2L2)=14.44  
B(Ag2HL2)=20.88  
\*\*\*\*\*

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

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

Ag+ gl oth/un 20°C var U 1981HTc (75903)2426  
Kso=-7.5  
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C10H20O3S2 L CAS 40253-98-3 (8606)  
1,4,10-Trioxa-7,13-dithiacyclopentadecane;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	cal	non-aq	25°C	100%	C	H	K1=6.05	1988BUB (75910)	2427
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Medium: acetonitrile. DH(K1)=-39.7 kJ mol<sup>-1</sup>, DS(K1)=-18 J K<sup>-1</sup> mol<sup>-1</sup>.

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	none	25°C	dil	C	M	K1=1.06	2004KUa (75931)	2428
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Method: Ag ion-selective electrode; self medium. For extraction into benzene, K(Ag+L(org))+HA(org)=AgLA(org)+H=2.11. HA is picric acid.

Ag+	ISE	alc/w	25°C	100%	C	IH T	K1=3.62 B2= 6.69	2003ADa (75932)	2429
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IUPAC Tentative. Medium: 0-0.1 M various. DH(K1)=-27.2 kJ mol<sup>-1</sup>  
In PC: K1=6.27, K2=1.77, DH(K1)=-41.2

Ag+	con	mixed	25°C	90%	C		K1=1.42	2003ISa (75933)	2430
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Medium: 90% v/v DMSO/H2O. By potentiometry (Ag electrode), K1=1.45.

Ag+	con	mixed	25°C	20%	C		K1=4.52	2003SIa (75934)	2431
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Medium: 20% w/w propylene carbonate/ethylene carbonate. By potentiometry (Pt/Ag electrode), K1=4.65.

Ag+	con	alc/w	25°C	40%	C		K1=1.26	2002ISa (75935)	2432
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Medium: 40% EtOH/H2O. By potentiometry, K1=1.26

Ag+	cal	none	25°C	0.1M	C T H		K1=0.89 DH(K1)=-10.4 kJ mol <sup>-1</sup>	2002VOa (75936)	2433
-----	-----	------	------	------	-------	--	--	-----------------	------

Ionic strength is provided by AgNO3 used: 0.06-0.2 M.  
for 35 C K1=0.83; DH(K1)=-10.61; for 45 C K1=0.78, DH(K1)=-10.3

Ag+	con	alc/w	25°C	40%	C		K1=1.35	2001ISa (75937)	2434
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Medium: 40% v/v EtOH/H2O. By potentiometry, K1=1.37.

Ag+	EMF	non-aq	25°C	100%	C		K1=6.24 B2= 8.01	2000OKa (75938)	2435
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Medium: propylene carbonate

Ag+	con	non-aq	25°C	100%	C	H	K1=1.80 B2= 2.30	1999WBa (75939)	2436
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Medium: N,N-dimethylformamide. By calorimetry: DH(K1)=-18.0 kJ mol<sup>-1</sup>,  
DH(K2)=2.9 kJ mol<sup>-1</sup>.

Ag+	con	mixed	25°C	90%	C	TIH	K1=4.96	1998MTa (75940)	2437
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Medium: 90% CH3CN/H2O. Data for 20-35 C. DH(K1)=17.3 kJ mol<sup>-1</sup>, DS(K1)=36.9 J K<sup>-1</sup> mol<sup>-1</sup>. In 50% CH3CN/H2O, K1=4.58, DH(K1)=4.8, DS(K1)=71.4.

Ag+	EMF	non-aq	25°C	100%	C T		K1=3.12	1998PSa (75941)	2438
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DH=-21.4 kJ mol<sup>-1</sup>, DS=-13 J K<sup>-1</sup> mol<sup>-1</sup>. Method: Ag electrode.  
Data for 10-55 C. Medium: EtOH.



-----  
 Ag+ con non-aq 25°C 100% C K1=4.80 1992STa (75942)2439  
 Medium: propylene carbonate. By potentiometry with Ag electrode, K1=4.81.  
 -----

Ag+ gl non-aq 25°C 100% C K1=6.24 B2=8.01 1989BP a (75943)2440  
 Medium: anhydrous propylene carbonate, 0.1 M Et4NC104  
 -----

Ag+ ISE non-aq 25°C 100% C K1=5.67 1983ANb (75944)2441  
 The equilibration took 7-12 days. Medium: PC, 0.10 M Et4NC104  
 -----

Ag+ cal alc/w 25°C 100% U H T K1=3.62 1980LIa (75945)2442  
 Medium: MeOH. DH=-27.5 kJ mol-1.  
 -----

Ag+ oth oth/un 25°C ? U K1=0.94 1977RLa (75946)2443  
 Method: ultrasound absorption  
 -----

Ag+ cal oth/un 25°C 0.10M U H T K1=0.94 1976ITb (75947)2444  
 DH=-13.5 kJ mol-1.  
 -----

\*\*\*\*\*  
 C10H21NO3 L (6568)  
 Trans-1-(bis(2-hydroxyethyl)amino)-2-hydroxycyclohexane;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	NaNO3	25°C	0.10M	C		K1=2.09	1991DCa (76172)2445	
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C10H21NO4 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
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Ag+		EMF alc/w	25°C	100%	C I		K1=5.48 B2= 8.33	2003TCb (76178)2446	
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Medium: 100% MeOH. Also data for EtOH, DMSO, acetonitrile, propylene carbonate and nitromethane.  
 -----

Ag+		EMF non-aq	25°C	100%	C		K1=9.75 B2=14.52	2000OKa (76179)2447	
-----	--	------------	------	------	---	--	------------------	---------------------	--

Medium: propylene carbonate. Also data for N-anthryl-derivatives.  
 -----

Ag+		EMF non-aq	25°C	100%	C		K1=4.10 B2= 6.55	1999THa (76180)2448	
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Medium: acetonitrile. Method: Ag/Ag+ electrode.  
 -----

Ag+		EMF non-aq	25°C	100%	C		K1=4.06 B2= 6.71	1998ACa (76181)2449	
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Medium: CH3CN  
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\*\*\*\*\*  
 C10H22N2OS2 L CAS 40236-04-2 (2343)  
 1-Oxa-4,13-diaza-7,10-dithiacyclopentadecane;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	NaClO4	25°C	0.10M	U H		K1=8.95	1979ASb (76231)2450	
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B(AgHL)=14.15

B(Ag2L)=12.21

Also DH values

-----  
Ag+ gl NaClO4 25°C 0.10M U K1=9.91 B2=12.64 1977LAa (76232)2451  
B(AgHL)=15.22  
-----

Ag+ gl NaClO4 25°C 0.10M U K1=8.95 1975ASc (76233)2452  
\*\*\*\*\*  
C10H22N2O52 L CAS 40236-30-4 (5395)  
1-Oxa-4,13-dithia-7,10-diazacyclopentadecane;  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl NaClO4 25°C 0.10M U H K1=9.91 1979ASb (76249)2453  
B(AgHL)=15.22  
B(Ag2L)=12.6  
-----

Also DH values

\*\*\*\*\*  
C10H22N2O3 L CAS 60350-17-6 (2471)  
1,4,7-Trioxa-10,13-diazacyclopentadecane;  
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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ EMF mixed 25°C 90% C K1=5.12 2003ISa (76258)2454  
Medium: 90% v/v DMSO/H2O. Method: Ag electrode.  
-----

Ag+ ix non-aq 25°C 100% U K1=5.17 1981SAa (76259)2455  
Medium: DMSO, 0.1 M R4NX  
\*\*\*\*\*  
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  
-----  
Ag+ EMF alc/w 25°C 100% C I K1=7.49 2003TCb (76279)2456  
Medium: 100% MeOH. Also data for EtOH, acetonitrile and propylene  
carbonate.  
-----

Ag+ ISE R4N.X 25°C 0.05M U H K1=13.15 B2=16.66 2002BSd (76280)2457  
Method: Ag+ ISE. Medium: propylene carbonate, 0.05 M Et4NClO4. By calorim-  
etry: DH(K1)=-76.5 kJ mol<sup>-1</sup>, DS=-6.0 J K<sup>-1</sup> mol<sup>-1</sup>; DH(K2)=-38.2, DS=-61.4.  
-----

Ag+ EMF alc/w 25°C 40% C K1=5.83 2002ISa (76281)2458  
Medium: 40% EtOH/H2O. Method: Ag/Ag+ electrode.  
-----

Ag+ EMF non-aq 25°C 100% C K1=13.75 B2=16.92 2000Ka (76282)2459  
Medium: propylene carbonate. Also data for N-anthryl and N,N'-dianthryl  
derivatives.  
-----

Ag+ EMF non-aq 30°C 100% C K1=7.40 1999KBa (76283)2460  
Method: Ag/Ag+ electrode. Medium: MeOH.

Ag+ EMF non-aq 25°C 100% C K1=6.43 1999THa (76284)2461  
Medium: acetonitrile. Method: Ag/Ag+ electrode.

Ag+ EMF non-aq 25°C 100% U K1=5.71 1998HTb (76285)2462  
Medium: DMSO. Method: Ag/Ag+ electrode

Ag+ ISE alc/w 25°C 100% U K1=7.45 1988CFa (76286)2463  
Medium: MeOH

Ag+ ISE non-aq 30°C 100% C T H K1=13.0 1986ALa (76287)2464  
Medium: propylene carbonate, 0.1M Et4NClO4. DH and DS given

Ag+ ISE non-aq 25°C 100% U H K1=6.55 1986BUB (76288)2465  
In CH3CN. DH=-31.7 kJ mol<sup>-1</sup>

Ag+ ISE alc/w 25°C 100% U H K1=7.63 1985BUB (76289)2466  
Medium: MeOH, 0.05M Et4NClO4. DH=-34.6 kJ mol<sup>-1</sup>

Ag+ ISE R4N.X 25°C 0.10M U I K1=5.88 1983CSa (76290)2467  
Also data for 0.05-1.0 mol fraction MeCN/H2O

Ag+ gl alc/w 25°C 100% C K1=7.61 1980SAa (76291)2468  
B(Ag2L)=11.21  
Medium: MeOH, 0.05 M Et4NClO4

Ag+ gl R4N.X 25°C 0.10M C K1=5.85 1977ASc (76292)2469  
\*\*\*\*\*  
C10H22N2S2 L (7059)  
8-Methyl-1,5-dithia-8,11-diazacyclotridecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl KNO3 425°C 0.10M M K1=10.06 B2=12.58 1995RKa (76368)2470  
B(AgHL)=13.72  
B(AgH2L)=16.554

\*\*\*\*\*  
C10H22O2S4 L CAS 78010-97-6 (4759)  
3,6,9,12-Tetrathiatetradecan-1,14-diol; (HO.CH2.CH2.S.CH2.CH2.S.CH2.)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE KNO3 20°C 0.10M U K1=10.00 B2=13.58 1970WSa (76431)2471  
K(AgL+Ag)=3.50 pH 3

\*\*\*\*\*  
C10H22O5 L Tetraglyme CAS 143-24-8 (121)  
2,5,8,11,14-Pentaoxapentadecane; (CH3.O.CH2.CH2.O.CH2.CH2.)20  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	non-aq	25°C	100%	C		K1=3.93 B2=5.94	1989BPa (76433)	2472
Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4									

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C10H23N	L						CAS 2050-92-2	(8927)	
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Dipentylamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	cal	R4N.X	25°C	0.05M	C	H		2002BSd (76485)	2473
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Medium: propylene carbonate, 0.05 M Et4NClO4. DH(K1)=-49.8 kJ mol<sup>-1</sup>.

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C10H24N2O52	L						CAS 68704-79-0	(1787)	
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8-Oxa-2,14-diaza-5,11-dithiapentadecane;

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

Ag+	gl	NaClO4	25°C	0.10M	U	H	K1=7.32 B(AgHL)=15.13 B(Ag2L)=10.19	1979ASb (76554)	2474
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Also DH values

Ag+	gl	NaClO4	25°C	0.10M	U		K1=7.34 B(Ag2L)=10.90 B(AgHL)=15.04	1975ASb (76555)	2475
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C10H24N4	L	Cyclam					CAS 295-37-4	(8)	
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1,4,8,11-Tetraazacyclotetradecane; cyclo(-(HN.CH2.CH2.NH.(CH2)3)2-)

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

Ag+	EMF	mixed	25°C	90%	C		K1=7.88	2003ISa (76652)	2476
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Medium: 90% v/v DMSO/H2O. Method: Ag electrode.

Ag+	EMF	alc/w	25°C	40%	C		K1=8.36	2002ISa (76653)	2477
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Medium: 40% EtOH/H2O. Method: Ag/Ag+ electrode.

Ag+	sp	non-aq	25°C	100%	C		K1=3.43	19970Db (76654)	2478
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Medium: DMSO, 0.10 M Et4NClO4.

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C10H28N6	L	PENTEN					CAS 4097-90-9	(3315)	
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N,N,N',N'-Tetra-(2-aminoethyl)diaminoethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	NaNO3	25°C	1.0M	C		K1=10.83 B(AgHL)=20.37 B(AgH2L)=28.93	2001GLb (76864)	2479
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C11H9NO2 HL CAS 92609-55-3 (4827)  
 5-Acetyl-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	diox/w	25°C	60%	U		K1=5.35	1973SCd (77324)	2480

Medium: 60% dioxan, 0.1 M NaClO4

C11H9NO2S2 HL CAS 27477-29-8 (3952)  
 5-(4'-Methoxybenzylidene)-2-thioxo-1,3-thiazolidin-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	NaClO4	20°C	0.10M	U		K1=8.80	1965NKb (77354)	2481

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	50%	U		K1=5.4	1967ANa (77453)	2482

Medium: 50% MeOH, 0.1 M NaClO4

C11H10N2 L CAS 1132-37-2 (2427)  
 (2,2'-Dipyridyl)methane; C5H4N.CH2.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	20°C	0.10M	U		K1=3.33 B2=6.41 K(Ag+HL)=1.0 K(Ag+AgL)=1.4	1970BAa (77655)	2483

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	R4N.X	20°C	0.10M	U		K1=3.54	1963IFb (77811)	2484

Medium: Me4NNO3

C11H11NS HL CAS 54128-50-6 (1033)  
 2,7-Dimethyl-8-mercaptoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	non-aq	25°C	100%	U		K1=14.1 B2=20.8	1984UBa (77855)	2485

Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

Ag+	EMF	non-aq	25°C	100%	U		K1=14.1 B2=20.80	1983UBa (77856)	2486
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Medium: DMF, 0.1 M LiClO4

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C11H1106As H3L (4836)  
Bis(carboxymethyl)(4-carboxyphenyl)arsine; (HOOCH<sub>2</sub>)<sub>2</sub>.As.C<sub>6</sub>H<sub>4</sub>.COOH

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

Ag+ ISE KNO<sub>3</sub> 20°C 0.10M U K1=6.1 1969PRa (77971)2487  
K(Ag+HL)=5.4

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C11H12N202 HL Tryptophan CAS 73-22-3 (3)  
2-Amino-3-(3-indolyl)propanoic acid; H<sub>2</sub>N.CH(CH<sub>2</sub>.C<sub>8</sub>H<sub>6</sub>N)COOH

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

Ag+ gl oth/un 25°C 0.5M U K1=3.53 B2= 8.47 2002LKa (78158)2488  
In 0.5 M HNO<sub>3</sub>

\*\*\*\*\*

C11H1202 HL CAS 3318-61-4 (4814)  
1-Phenylpentane-2,4-dione; C<sub>6</sub>H<sub>5</sub>.CH<sub>2</sub>.CO.CH<sub>2</sub>.CO.CH<sub>3</sub>

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

Ag+ gl diox/w 30°C 75% U K1=5.44 1967SUa (78380)2489

\*\*\*\*\*

C11H1202S HL (4838)  
4-(But-1-enylthio)benzoic acid; CH<sub>2</sub>:CH.CH<sub>2</sub>.CH<sub>2</sub>.S.C<sub>6</sub>H<sub>4</sub>.COOH

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE oth/un 25°C 0.20M U K1=2.84 1968PSb (78384)2490  
Acetate buffer.

\*\*\*\*\*

C11H1204S2 H2L CAS 4265-49-0 (4840)  
4-Methyl-1,2-phenylenebisthioethanoic acid; CH<sub>3</sub>.C<sub>6</sub>H<sub>3</sub>(S.CH<sub>2</sub>.COOH)<sub>2</sub>

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

Ag+ ISE oth/un 25°C 0.20M U K1=4.17 1971FPa (78413)2491  
Medium: acetate buffer, pH 1.5 and 5.95

\*\*\*\*\*

C11H13N04 H2L CAS 3987-53-9 (966)  
N-Benzyliminodiethanoic acid; C<sub>6</sub>H<sub>5</sub>.CH<sub>2</sub>.N(CH<sub>2</sub>.COOH)<sub>2</sub>

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

Ag+ ISE oth/un 25°C 0.10M M K1=4.31 B2=7.1 1975IPa (78574)2492  
Medium: 0.10M K-acetate

\*\*\*\*\*

C11H13N05 H2L CAS 4596-54-7 (3945)  
N-(2'-Methoxyphenyl)iminodiethanoic acid; CH<sub>3</sub>O.C<sub>6</sub>H<sub>4</sub>.N(CH<sub>2</sub>.COOH)<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	R4N.X	20°C	0.10M	U		K1=2.75	1963IFb (78599)	2493
Medium: Me4NNO3									
*****									
C11H13N7O4		HL					CAS 362468-50-6	(8659)	
N-(4-Amino-1,6-dihydro-1-methyl-5-nitroso-6-oxo-2-pyrimidinyl)-L-histidine;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	C		B2=8.88 B(AgHL)=8.60 B(Ag3L3)=20.68 B(AgH-2L)=-17.51 B(AgHL2)=14.55	2002PLb (78730)	2494
*****									
C11H13O4As		H2L					CAS 36198-36-4	(4846)	
Bis(carboxymethyl)(2-tolyl)arsine; (HOOC.CH2)2.As.C6H4.CH3									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	20°C	0.10M	U		K1=5.93 K(Ag+HL)=4.981 K(Ag+H2L)=4.412	1972FGb (78732)	2495
*****									
C11H13O4As		H2L					CAS 36198-37-5	(4847)	
Bis(carboxymethyl)(3-tolyl)arsine; (HOOC.CH2)2.As.C6H4.CH3									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	20°C	0.10M	U		K1=6.06 K(Ag+HL)=4.967 K(Ag+H2L)=4.403	1972FGb (78734)	2496
*****									
C11H13O4As		H2L					CAS 36198-38-6	(4848)	
Bis(carboxymethyl)(4-tolyl)arsine; (HOOC.CH2)2.As.C6H4.CH3									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	20°C	0.10M	U		K1=6.44 K(Ag+HL)=5.577 K(Ag+H2L)=4.827	1972FGb (78736)	2497
*****									
C11H13O4AsS		H2L					CAS 36198-36-4	(4870)	
Bis(carboxymethyl)-2-(methylthiophenyl)arsine; (HOOC.CH2)2.As.C6H4.S.CH3									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.20M	U		K1=5.14	1971FPa (78741)	2498

B(Ag2L)=7.88  
K(Ag+HL)=4.64  
K(2Ag+HL)=6.82  
K(Ag+2HL)=8.73

Medium: 0.2 M acetate buffer, pH 1.5 and 5.95

\*\*\*\*\*

C11H13O5As                      H2L                      (4849)  
Bis(carboxymethyl)(2-methoxyphenyl)arsine; (HOO.C.CH2)2.As.C6H4.OCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KN03	20°C	0.10M	U		K1=6.14 K(Ag+HL)=4.67 K(Ag+H2L)=4.54	1972FGb (78751)	2499

\*\*\*\*\*

C11H13O5As                      H2L                      (4850)  
Bis(carboxymethyl)(3-methoxyphenyl)arsine; (HOO.C.CH2)2.As.C6H4.OCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KN03	20°C	0.10M	U		K1=6.20 K(Ag+HL)=4.804 K(Ag+H2L)=4.556	1972FGb (78753)	2500

\*\*\*\*\*

C11H13O5As                      H2L                      (4851)  
Bis(carboxymethyl)(4-methoxyphenyl)arsine; (HOO.C.CH2)2.As.C6H4.OCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KN03	20°C	0.10M	U		K1=6.36 K(Ag+HL)=5.495 K(Ag+H2L)=4.759	1972FGb (78755)	2501

\*\*\*\*\*

C11H14                              L                              CAS 2055-40-5 (4806)  
alpha-Isopropylstyrene; C6H5.C(CH(CH3)2):CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U T		K1=1.13    B2=1.28	1969INa (78756)	2502
K1(0 C)=1.52, K2(0 C)=0.11									

\*\*\*\*\*

C11H14                              L                              CAS 62985-48-2 (4809)  
alpha-n-Propylstyrene; C6H5.C(CH2.CH2.CH3):CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U T		K1=0.91    B2=1.14	1969INa (78757)	2503
K1(0 C)=1.28, K2(0 C)=0.23									

\*\*\*\*\*

C11H14                              L                              CAS 79211-50-0 (4807)



cis-beta-Isopropylstyrene; C6H5.CH:CH.CH(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U	T	K1=1.14 B2=1.18	1969INa (78758)	2504
K1(0 C)=1.37, K2(0 C)=0.26									

\*\*\*\*\*

C11H14	L	CAS 7642-18-4	(4810)
cis-beta-n-Propylstyrene; C6H5.CH:CH.CH2.CH2.CH3			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U	T	K1=1.06 B2=1.17	1969INa (78759)	2505
K1(0 C)=1.32, K2(0 C)=0.26									

\*\*\*\*\*

C11H14	L	CAS 21003-53-2	(4808)
trans-beta-Isopropylstyrene; C6H5.CH:CH.CH(CH3)2			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U	T	K1=1.02 B2=0.97	1969INa (78760)	2506
K1(0 C)=1.35, K2(0 C)=0.26									

\*\*\*\*\*

C11H14	L	(4811)
trans-beta-n-Propylstyrene; C6H5.CH:CH.CH2.CH2.CH3		

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U	T	K1=0.74 B2=0.97	1969INa (78761)	2507
K1(0 C)=0.99, K2(0 C)=0.40									

\*\*\*\*\*

C11H14N2O	L	CAS 51036-80-7	(444)
1-(1-Ethoxyethyl)benzimidazole;			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	kin	NaCl	80°C	0.25M	C			1980LKa (78769)	2508
K(Ag+HL=AgL+H)=2.19									

\*\*\*\*\*

C11H14N2O4	H2L	(1880)
N-(6-Methyl-2-pyridylmethyl)iminodiethanoic acid; CH3C5H3NCH2N(CH2COOH)2		

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KN03	25°C	0.10M	C	H	K1=6.10	1981ANb (78872)	2509
B(AgHL)=10.25									
B(Ag2L2)=15.85									

\*\*\*\*\*

C11H14O2S	HL	CAS 76003-63-9	(4856)
4-(n-Butylthio)benzoic acid; CH3.CH2.CH2.CH2.S.C6H4.COOH			

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE oth/un 25°C 0.20M U          K1=2.82          1968PSb (79006)2510
Acetate buffer
*****
C11H15N02S2          L                      CAS 85692-71-3 (2453)
Di((ethylthio)methyl)-4'-nitrobenzene; O2N.C6H4.CH(SC2H5)2
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        kin diox/w 25°C 1% U T          K1=0.18          1989SSa (79025)2511
K1=-0.22 (16 C); 0.95 (44 C); 1.48 (59 C)
*****
C11H15N03          L                      (6281)
Benzaldehyde:tris-buffer Schiff's base; C6H5.CH:N.C(CH2.OH)3
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        gl alc/w 26°C 60% U          K1=3.89          1978TPb (79029)2512
*****
C11H15N03ClPS          L                      (4882)
O,O-Diethyl-4-chlorobenzoylphosphoramidothioate;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE alc/w 20°C 100% U          K1=10.8   B2=13.80  1968ZAb (79033)2513
Medium: EtOH
*****
C11H15N2O5PS          L                      (4877)
O,O-Diethyl-4-nitrobenzoylphosphoramidothioate;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE alc/w 20°C 100% U          K1=11.3   B2=14.30  1968ZAb (79056)2514
Medium: EtOH
*****
C11H16          CAS 700-12-9 (3343)
Pentamethylbenzene; C6H(CH3)5
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        sol oth/un 25°C 0.50M U          K1=0.06          19560Aa (79077)2515
*****
C11H16N03PS          L                      (4878)
O,O-Diethylbenzoylphosphoramidothioate;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE alc/w 20°C 100% U          K1=11.1   B2=14.10  1968ZAb (79080)2516

```

Medium: EtOH

\*\*\*\*\*

C11H16S2 L CAS 7734-52-3 (2452)

Di((ethylthio)methyl)benzene; C6H5.CH(S.CH2.CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	kin	diox/w	25°C	1%	U		K1=2.48	1989SSa (79147)	2517

\*\*\*\*\*

C11H18N04PS2 HL (4879)

(4-Methyl)phenylsulfonylamidothiophosphoric acid 0,0-diethyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	20°C	100%	U		K1=10.60 B2=13.50	1968ZAb (79192)	2518

Medium: EtOH

\*\*\*\*\*

C11H18N05PS2 HL (4880)

(4-Methoxy)phenylsulfonylamidothiophosphoric acid 0,0-diethyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	20°C	100%	U		K1=10.66 B2=13.52	1968ZAb (79194)	2519

Medium: EtOH

\*\*\*\*\*

C11H18N208 H4L PDTA CAS 4408-81-5 (1655)

1,2-Diaminopropane-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	20°C	0.10M	U		K1=7.86 K(AgL+H)=5.80	1981SKf (79238)	2520
Ag+	EMF	KNO3	25°C	0.10M	C		K1=7.5 K(AgL+H)=7.4 K(AgHL+H)=5.1 K(AgH2L+H)=3.4	1979BCb (79239)	2521

Method: Ag electrode.

\*\*\*\*\*

C11H18N208 H4L CAS 4408-81-5 (923)

1,3-Diaminopropane-N,N,N',N'-tetraethanoic acid; ((H0OC.CH2)2N.CH2.)2.CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	1.00M	C		K1=5.02 B(AgHL)=13.45 B(Ag2L)=8.22 B(Ag2L2)=13.01	1992ANa (79402)	2522

Ag+	gl	KNO3	20°C	0.10M	U		K1=5.45	1981SKf (79403)	2523
-----	----	------	------	-------	---	--	---------	-----------------	------

K(AgL+H)=8.62

\*\*\*\*\*

C11H18N2O9                      H4L      HDPTA                      CAS 3148-72-9 (431)  
1,3-Diamino-2-hydroxypropane-N,N,N',N'-tetraethanoic acid;

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

Ag+              gl    KCl        25°C 0.10M U                      K1=5.28                      1975HAa (79516)2524  
B(AgHL)=17.09  
K(Ag+AgL=Ag2L)=3.0

\*\*\*\*\*

C11H18N4                      L                      CAS 78668-34-5 (6708)  
3,6,9,15-Tetraazabicyclo[9.3.1]pentadeca-1(15),11,13-triene;

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

Ag+              EMF KNO3    25°C 0.10M C                      K1=6.00                      2002SGc (79616)2525  
Method: Ag electrode.

\*\*\*\*\*

C11H22N2O2S2                      HL                      (7063)  
10-Methyl-1,4-Dithia-7,10-diazacyclododecane-7-ethanoic acid;

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

Ag+              gl    KNO3    25°C 0.10M M                      K1=12.32                      1995RKa (79817)2526  
B(AgHL)=16.53  
B(AgH2L)=18.329

\*\*\*\*\*

C11H22O5                      L      16-Crown-5                      CAS 55477-28-8 (1592)  
1,4,7,10,13-Pentaoxacyclohexadecane; cyclo(-(O.CH2.CH2)5.CH2.CH2-)

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

Ag+              ISE none    25°C 0.0 C                      K1=1.10                      1991TKa (79845)2527  
Self medium (ca. 0.0008M). Method: Ag ion-selective electrode.

-----  
Ag+              dis none    25°C 0.0 C      M                      1989TKc (79846)2528  
K(AgL+A=AgAL(org))=3.13

Method: extraction of metal picrate/L from H2O into benzene.

K(Ag+HA(org)+L(org)=AgAL(org)+H)=2.235. HA is picric acid.

\*\*\*\*\*

C11H24N2S2                      L                      (7060)  
8-Methyl-1,4-dithia-8,11-diazacyclotetradecane;

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

Ag+              gl    KNO3    25°C 0.10M M                      K1=8.08    B2=10.24    1995RKa (79902)2529  
B(AgHL)=14.36  
B(AgH2L)=18.628  
B(AgH2L2)=26.90

\*\*\*\*\*

C11H24O2S4 L CAS 88458-56-4 (4861)  
3,6,10,13-Tetrathiapentadecan-1,15-diol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	20°C	0.10M	U		K1=10.08 B2=13.66 K(AgL+Ag)=3.14 pH 3	1970WSa (79913)	2530

\*\*\*\*\*

C11H25N3S2 L (7062)  
10-Methyl-7(2-aminoethyl)-1,4-dithia-7,10-diazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	M		K1=14.43 B(AgHL)=20.56 B(AgH2L)=22.418	1995Rka (79944)	2531

\*\*\*\*\*

C11H26N4 L CAS 15439-16-4 (7)  
1,4,8,12-Tetraazacyclopentadecane; cyclo(-(NH.CH2.CH2.(N.(CH2)3.)3-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	non-aq	25°C	100%	C		K1=4.26	19970Db (79989)	2532

Medium: DMSO, 0.10 M Et4NClO4.

\*\*\*\*\*

C12H6O2Cl4S H2L CAS 97-18-7 (4944)  
Bithionol; Cl2.C6H2(OH).S.C6H2(OH).Cl2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	75%	U		K1=4.55 B2=7.15	1970FGa (80095)	2533

Medium: 75% EtOH, 1.0 M NaClO4

\*\*\*\*\*

C12H7N2Br L CAS 40000-20-2 (2750)  
5-Bromo-1,10-phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	C		K1=5.30 B2=11.74	1974B0a (80118)	2534

\*\*\*\*\*

C12H7N2Cl L CAS 4199-89-7 (2751)  
5-Chloro-1,10-phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	C		K1=4.70 B2=11.02	1974B0a (80140)	2535

\*\*\*\*\*

C12H8N2 L Phenanthroline CAS 66-71-7 (144)  
1,10-Phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	non-aq	25°C	100%	U		B2=12.40	1988IGa (80365)	2536
Medium: 0.1 M Et4NN03 in propylene carbonate									
Ag+	EMF	oth/un	25°C	0.10M	U		B2=11.5	1986IGa (80366)	2537
Solutions containing 0.1 M (C2H5)4N.Cl04 and 0.01 M AgN03 Kso (AgL2N03) = -7.20									
Ag+	ISE	non-aq	?	100%	U		B2=9.87	1984IGa (80367)	2538
Medium: CH3CN									
Ag+	ISE	NaN03	25°C	0.50M	U			1967SPa (80368)	2539
							Ks(AgL2N03)=-18.95		
Ag+	ISE	oth/un	25°C	0.10M	U		K1=5.02 B2=12.07	1963DBa (80369)	2540
Ag+	ISE	alc/w	20°C	100%	U	I		1958PPa (80370)	2541
							K3=13.40		
Medium: EtOH. In MeCN K1=15.04									

\*\*\*\*\*  
C12H9N0S2 HL CAS 15328-87-7 (3997)  
5-(3'-Phenylallylidene)-2-thioxo-1,3-thiazolidin-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	NaCl04	20°C	0.10M	U		K1=9.08	1965NKb (80569)	2542
*****									
C12H9N3		L						CAS 1137-68-4 (2517)	
2-(2'-Pyridyl)benzimidazole;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	non-aq	25°C	100%	U		K1=7.0 B2=13.1	1981TLa (80623)	2543
Medium: Propylene carbonate									
*****									
C12H10		L						CAS 92-52-4 (3368)	
Biphenyl; C6H5.C6H5									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	non-aq	25°C	100%	U		K1=0.589 B2=0.21	1991PZa (80648)	2544
Ag+	sol	oth/un	25°C	?	U		K1=0.60 B2=0.60	1949AKa (80649)	2545
*****									
C12H10N20S5		H3L						CAS 547-57-9 (1090)	
Chrysoin; HS03.C6H4.N:N.C6H3(OH)2									

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

-----  
 Ag+ ISE mixed 20°C 75% C 1987KMa (80736)2546  
 K(Ag+H2L)=0.77  
 K(Ag+2H2L)=2.76  
 K(Ag(H2L)2+H2L)=1.89

Medium: 75% v/v acetone/H2O

\*\*\*\*\*

C12H10S L CAS 139-66-2 (6001)  
 Diphenylsulfide;

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

Ag+ ISE non-aq 25°C 100% U H K1=0.48 1987ZPa (80804)2547  
 In DMSO; 0.1M NH4ClO4.

\*\*\*\*\*

C12H12N2 L CAS 4916-40-9 (4895)  
 1,2-Bis(2-pyridyl)-ethane; C5H4N.CH2.CH2.C5H4N

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

Ag+ gl KNO3 20°C 0.10M U K1=3.20 B2=5.93 1970BAa (80989)2548  
 K(Ag+HL)=1.3  
 K(Ag+AgL)=1.6

\*\*\*\*\*

C12H12N2OS2 L CAS 536-17-4 (1815)  
 5-(4-Dimethylaminobenzylidene)-2-thioxo-4-thiazolidinone;

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

Ag+ dis NaClO4 20°C 0.10M U K1=9.15 1965NKb (81035)2549

\*\*\*\*\*

C12H12N2O2 L CAS 4114-95-8 (3976)  
 N,N'-Di(furfurylidene)ethylenediamine; (C4H3O.CH:N.CH2.)2

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

Ag+ ISE alc/w 20°C 0.10M U K1=6.70 B2=8.95 1966HSc (81048)2550  
 Medium: MeOH, 0.1 M NaNO3

\*\*\*\*\*

C12H12N2S2 L CAS 4144-94-7 (3977)  
 N,N'-Di(thienylidene)ethylenediamine; (C4H3S.CH:N.CH2.)2

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

Ag+ ISE alc/w 20°C 0.10M U K1=7.54 B2=9.42 1966HSc (81112)2551  
 Medium: MeOH, 0.1 M NaNO3

\*\*\*\*\*

C12H13NS HL CAS 54421-21-5 (1034)  
 2-(2-Propyl)-8-mercaptoquinoline;

-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	non-aq	25°C	100%	U		K1=8.9 B2=17.4	1984UBa	(81253)2552

Medium: DMF, 0.1 M LiClO4

\*\*\*\*\*

C12H13N3 L CAS 1539-42-0 (932)

bis-((2-Pyridyl)methyl)-amine (Di-2-picolylamine); C5H4N.CH2NHCH2.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	20°C	0.10M	C		K1=5.46 B2=8.16	1977AHc	(81277)2553

Ag+	gl	KNO3	25°C	0.10M	U		K1=5.1 B2=8.2	1968Rba	(81278)2554
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C12H14O2S HL (4918)

4-(Pent-1-enylthio)benzoic acid; CH2:CH.CH2.CH2.CH2.S.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.20M	U		K1=3.05	1968PSb	(81395)2555

Acetate buffer.

\*\*\*\*\*

C12H14O4AsCl H2L (4006)

4'-Chlorophenyl-3,3'-arsinodipropionic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KNO3	20°C	0.10M	U		K1=5.00 K(Ag+HL)=3.98	1964PIa	(81407)2556

\*\*\*\*\*

C12H16 L CAS 76206-42-9 (4883)

alpha-n-Butylstyrene; C6H5.C(CH2.CH2.CH2.CH3):CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KNO3	25°C	1.0M	U T		K1=0.81 K(AgL+Ag)=0.18	1969INa	(81542)2557

0 C: K1=1.11, K(AgL+Ag)=0.23

\*\*\*\*\*

C12H16 L CAS 35243-57-3 (4886)

alpha-sec-Butylstyrene; C6H5.C(CH(CH3).CH2.CH3):CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KNO3	25°C	1.0M	U T		K1=0.84 K(AgL+Ag)=0.11	1969INa	(81543)2558

0 C: K1=1.12, K(AgL+Ag)=0.23

\*\*\*\*\*

C12H16 L CAS 38338-64-6 (4889)

alpha-tert-Butylstyrene; C6H5.C(C(CH3)3):CH2



Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U	T	K1=0.93 K(AgL+Ag)=0.08	1969INa (81544)	2559
0 C: K1=1.17, K(AgL+Ag)=0.26 *****									
C12H16		L					CAS 6111-83-6	(4884)	
cis-beta-n-Butylstyrene; C6H5.CH:CH.CH2.CH2.CH2.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U	T	K1=0.93 K(AgL+Ag)=0.04	1969INa (81545)	2560
0 C: K1=1.18, K(AgL+Ag)=0.18 *****									
C12H16		L					CAS 63444-56-4	(4887)	
cis-beta-sec-Butylstyrene; C6H5.CH:CH.CH(CH3).CH2.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U	T	K1=0.94 K(AgL+Ag)=0.00	1969INa (81546)	2561
0 C: K1=1.19, K(AgL+Ag)=0.20 *****									
C12H16		L					CAS 42268-77-9	(4890)	
cis-beta-tert-Butylstyrene; C6H5.CH:CH.C(CH3)3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U	T	K1=0.97 K(AgL+Ag)=0.04	1969INa (81547)	2562
0 C: K1=1.19, K(AgL+Ag)=0.32 *****									
C12H16		L					CAS 828-15-9	(4885)	
trans-beta-n-Butylstyrene; C6H5.CH:CH.CH2.CH2.CH2.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U	T	K1=0.43 K(AgL+Ag)=0.00	1969INa (81548)	2563
0 C: K1=0.81, K(AgL+Ag)=0.23 *****									
C12H16		L					CAS 25358-51-6	(4888)	
trans-beta-sec-Butylstyrene; C6H5.CH:CH.CH(CH3).CH2.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	KN03	25°C	1.0M	U	T	K1=0.71 K(AgL+Ag)=-0.05	1969INa (81549)	2564

0 C: K1=1.01, K(AgL+Ag)=-0.10

\*\*\*\*\*

C12H16 L CAS 37849-09-5 (4891)

trans-beta-tert-Butylstyrene; C6H5.CH:CH.C(CH3)3

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

Ag+ sol KNO3 25°C 1.0M U T K1=0.82 1969INa (81550)2565  
K(AgL+Ag)=0.15

0 C: K1=1.11, K(AgL+Ag)=0.36

\*\*\*\*\*

C12H16O2S HL CAS 53551-39-6 (4932)

4-(n-Pentylthio)benzoic acid; CH3.CH2.CH2.CH2.CH2.S.C6H4.COOH

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

Ag+ ISE oth/un 25°C 0.20M U K1=2.84 1968PSb (81666)2566  
Acetate buffer.

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C12H17NS2 L (7473)

7-Phenyl-1,4-dithia-7-azacyclononane; C6H5.C6H12NS2

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ EMF non-aq 25°C 100% C K1=3.70 B2= 6.70 1999ISa (81720)2567  
Medium: acetonitrile, 0.1 M Me4NClO4

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C12H18 L CAS 877-44-1 (3370)

1,2,4-Triethylbenzene; C6H3(CH2.CH3)3

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

Ag+ sol NaNO3 25°C 0.50M U K1=0.07 19560Aa (81787)2568

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C12H18 L CAS 99-62-7 (3369)

1,3-Di-isopropylbenzene; C6H4(CH(CH3)2)2

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

Ag+ sol NaNO3 25°C 0.50M U K1=0.03 19560Aa (81788)2569

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C12H18 L CAS 87-85-4 (2406)

Hexamethylbenzene; C6(CH3)6

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

Ag+ sol NaNO3 25°C 0.50M U H K1=-0.44 19560Aa (81789)2570  
DH(K1)=-14.4 kJ mol<sup>-1</sup>, DS=-52.3 J K<sup>-1</sup> mol<sup>-1</sup>

-----  
Ag+ sol NaNO3 1.6°C 0.50M U K1=0.01 19560Aa (81790)2571

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C12H18NO3PS L (4968)

O,O-Diethyl-4-methylbenzoylphosphoramidothioate;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE alc/w 20°C 100% U K1=11.4 B2=14.40 1968ZAb (81792)2572

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C12H18OS2 L CAS 25837-15-2 (2455)

4-Methoxy-di(ethylthio)methyl-benzene; CH3O.C6H4.CH(S.CH2.CH3)2

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

Ag+ kin diox/w 25°C 1% U T K1=2.20 1989SSa (81959)2573

K1=2.14 (34 C); 1.95 (43 C)

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C12H18S2 L CAS 160581-14-6 (4912)

1,3-Bis[(ethylthio)methyl]benzene;

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

Ag+ dis KNO3 22°C 0.5M U 1998FRa (81967)2574

B(Ag(NO3)L)(org)=1.91

B(Ag(NO3)L2)(org)=4.37

B(Ag3(NO3)3L3)(aq)=13.85

Organic medium: chloroform. B(Ag(NO3)L)(org): Ag(aq)+NO3(aq)+L(org)=

Ag(NO3)L(org). B(Ag3(NO3)3L3)(aq): Ag(aq)+NO3(aq)+L(org)=Ag3(NO3)3L3(aq).

\*\*\*\*\*

C12H18S2 L CAS 22914-06-3 (2454)

Di-(1,1-thioethyl)ethylbenzene; C6H5.CH(SC2H5)2CH3

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

Ag+ kin diox/w 25°C 1% U T K1=2.36 1989SSa (81968)2575

K1=2.12 (34 C); 1.97 (43 C)

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C12H20N2O8 H4L CAS 1798-13-6 (4935)

1,2-Diaminobutane-N,N,N',N'-tetraethanoic acid;

(HOOC.CH2)2N.CH2.CH(C2H5).N(CH2.COOH)2

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

Ag+ gl KNO3 20°C 0.10M U K1=7.93 1981SKf (82015)2576

K(AgL+H)=5.92

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C12H20N2O8 H4L CAS 2458-58-4 (922)

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

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

Ag+ gl KNO3 25°C 1.00M C K1=5.15 1992ANa (82198)2577  
 B(AgHL)=14.10  
 B(Ag2L)=8.20  
 B(Ag2L2)=13.70

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C12H20N2O8 H4L BDTA CAS 868-43-9 (1742)  
 DL-2,3-Diaminobutane-N,N,N',N'-tetraethanoic acid;  
 (HOOC.CH2)2N.CH(CH3).CH(CH3).N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	KNO3	20°C	0.10M	U		K1=8.01 K(AgL+H)=6.49	1981SKf (82266)	2578
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Ag+	EMF	KNO3	25°C	0.10M	C		K1=5.5 K(AgL+H)=9.1 K(AgHL+H)=6.1 K(AgH2L+H)=3.0	1979BCb (82267)	2579
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Method: Ag electrode.

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C12H20N2O8 H4L CAS 63818-08-6 (2584)  
 meso-2,3-Diaminobutane-N,N'-di(1,4-butanedioic acid);  
 (CH(CH3).NH.CH(COOH)(CH2.COOH))2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	KNO3	20°C	0.10M	U		K1=6.70 K(AgL+H)=6.75	1981SKf (82348)	2580
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C12H20O7S L CAS 63689-64-5 (2171)  
 4-Thia-1,7,10,13,16-pentaoxacyclooctadecane-2,6-dione;  
 cyclo(-S.CH2.CO.(O.CH2.CH2)4.O.CO.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	cal	alc/w	25°C	100%	U	H	K1=3.05	1980LIb (82644)	2581
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Medium: MeOH. DH=-29.2 kJ mol<sup>-1</sup>

Ag+	sp	alc/w	25°C	100%	U	H	K1=3.05	1977ILc (82645)	2582
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Medium: Methanol. DH(K1)= -29.2 kJ mol<sup>-1</sup>

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C12H20O8 L CAS 62796-84-3 (2141)  
 1,4,7,10,13,16-Hexaoxacyclooctadecane-2,6-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	cal	alc/w	25°C	100%	U	H	K1=2.50	1980Bma (82646)	2583
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Medium: MeOH. DH=-6.40 kJ mol<sup>-1</sup>.

Ag+	cal	alc/w	25°C	100%	U	H	K1=2.50	1980LIb (82647)	2584
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Medium: MeOH. DH=-6.40 kJ mol<sup>-1</sup>.

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C12H22N2O6 L CAS 23978-54-3 (8931)

1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-6,17-dione;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE R4N.X 25°C 0.05M U H K1=2.55 2002BSd (82780)2585

Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M

Et4NClO4. By calorimetry: DH(K1)=-29.5 kJ mol<sup>-1</sup>, DS(K1)=-50.3 J K<sup>-1</sup> mol<sup>-1</sup>.

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C12H23NO5 L (6793)

10-Methoxycarbonylethyl-1,4,7-trioxa-10-azacyclododecane;

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

Ag+ cal alc/w 25°C 100% U H 1990KMb (82942)2586

Medium: MeOH. DH=-49.9 kJ mol<sup>-1</sup>

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C12H23P L CAS 829-84-5 (5982)

Dicyclohexylphosphine; HP(C6H11)2

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ EMF non-aq 25°C 100% U H K1=5.40 B2=8.12 1987HPb (83010)2587

In pyridine; medium: 0.1 M Et4NClO4

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C12H24O2 HL Lauric acid CAS 143-07-7 (2540)

Dodecanoic acid, CH3.(CH2)10.COOH

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ gl oth/un 20°C var U 1981HTc (83109)2588

Kso=-9.00

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C12H24O2S4 L (6657)

1,4,7,10-Tetrathia-13,16-dioxacyclooctadecane, 1,4,7,10-Tetrathia-18-crown-6;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ix none 25°C 0.0 U K1=11.3 1991BTa (83116)2589

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C12H24O4S2 L CAS 296-39-9 (4938)

1,4,10,13-Tetraoxa-7,16-dithiacyclooctadecane;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ cal non-aq 25°C 100% C H K1=6.30 1988BUb (83126)2590

Medium: acetonitrile. DH(K1)=-41.5 kJ mol<sup>-1</sup>, DS(K1)=-19 J K<sup>-1</sup> mol<sup>-1</sup>.

Ag+ cal non-aq 25°C 100% C H 1986BUe (83127)2591  
 Medium: MeOH. DH(K1)=-64.0 kJ mol<sup>-1</sup>, DS(K1)=-17.8 J K<sup>-1</sup> mol<sup>-1</sup>.

Ag+ ISE oth/un 25°C .001M U H K1=1.84 1986PBa (83128)2592

Ag+ ISE oth/un 25°C dil A K1=4.34 1971FRa (83129)2593

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C12H24O5S L Thia-18-crown-6 CAS 52559-79-2 (2263)

1-Thia-4,7,10,13,16-pentaoxacyclooctadecane;

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

Ag+ cal alc/w 25°C 100% U H K1=>5.5 1980LIa (83153)2594

Medium: MeOH. DH=-51.5 kJ mol<sup>-1</sup>.

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C12H24O6 L 18-Crown-6 CAS 17455-13-9 (577)

1,4,7,10,13,16-Hexaoxacyclooctadecane;

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

Ag+ ISE none 25°C dil C M 2004KUa (83183)2595

Method: Ag ion-selective electrode; self medium. For extraction into benzene, K(Ag+L(org))+HA(org)=AgLA(org)+H=2.15. HA is picric acid.

Ag+ EMF alc/w 25°C 100% C K1=4.29 2004ZTa (83184)2596

Medium: 100% methanol, 0.05 M Bu4NClO4. Method: Ag electrode.

Ag+ ISE alc/w 25°C 100% C IH R K1=4.61 2003ADa (83185)2597

IUPAC Recommended. Medium: 0-0.1 M various. DH(K1)=-39 kJ mol<sup>-1</sup>

In H2O: K1=1.50, DH(K1)=-9. In PC: K1=7.0, DH(K1)=-49.6

Ag+ con mixed 25°C 90% C K1=2.11 2003ISa (83186)2598

Medium: 90% v/v DMSO/H2O. By potentiometry (Ag electrode), K1=2.15.

Ag+ con non-aq 25°C 100% C TIH K1=3.54 2003RZa (83187)2599

Medium: acetonitrile. Data for 15-55 C. DH(K1)=75 kJ mol<sup>-1</sup>, DS(K1)=321 J K mol<sup>-1</sup>. In MeOH, K1=4.6, DH=25, DS=172. Data for AN/MeOH mixtures and BN.

Ag+ con mixed 25°C 20% C K1=4.92 2003SIa (83188)2600

Medium: 20% w/w propylene carbonate/ethylene carbonate. By potentiometry (Pt/Ag electrode), K1=4.89.

Ag+ con alc/w 25°C 40% C K1=1.97 2002ISa (83189)2601

Medium: 40% EtOH/H2O. By potentiometry, K1=1.99

Ag+ ISE alc/w 25°C 100% U K1=4.28 2002LDA (83190)2602

for 1.0 M KCl in H2O K1=1.70

Medium: 1.0 M KCl in MeOH; for 0.2 mass parts of MeOH/H2O K1=1.83;

for 0.6 mass parts of MeOH/H2O K1=2.72; Ag-electrode

Ag+ ISE mixed 25°C 100% U I K1=2.61 2002LDa (83191)2603  
for 1.0 M KCl in H2O K1=1.70  
Medium: 1.0 M KCl in n-Propanol; for 0.2 mass parts of PrOH/H2O K1=1.91;  
for 0.6 mass parts of PrOH/H2O K1=1.75; Ag-electrode

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Ag+ con alc/w 25°C 40% C K1=2.06 2001ISa (83192)2604  
Medium: 40% v/v EtOH/H2O. By potentiometry, K1=2.07.

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Ag+ cal mixed 25°C U I K1=0.35 2001USa (83193)2605  
DH(K1)=-13.0 kJ mol<sup>-1</sup>  
Medium: 0.97 mol parts DMSO in H2O; for 100% H2O K1=1.4; DH(K1)=-10.2  
for 0.6 m.p. DMSO K1=1.0; DH(K1)=-18.2; for 0.2 m.p. DMSO K1=1.75

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Ag+ gl oth/un 25°C 0.05M M IH T K1=1.50 2000BSa (83194)2606  
Medium: 0.05 M Et4N[ClO4]. By calorimetry, DH=-9.1 kJ mol<sup>-1</sup>.  
Also data for other media: DMSO, PC, DMI, AN, DMF, MeOH, TFE, EtOH, AN.

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Ag+ EMF non-aq 30°C 100% C K1=2.78 1999KBa (83195)2607  
Method: Ag/Ag+ electrode. Medium: N-methyl-2-pyrrolidinone.

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Ag+ ISE alc/w 25°C C T H K1=2.72 1999LPa (83196)2608  
Medium: 60% mass MeOH in H2O; for 100 H2O K1=1.77; for 100% MeOH: 4.28  
For 60% MeOH and T=45 C K1=2.56; T=35 C K1=2.62; Also data for 20, 40, 80%

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Ag+ cal non-aq 25°C 100% C H K1=2.62 1999WBa (83197)2609  
Medium: N,N-dimethylformamide. DH(K1)=-18.1 kJ mol<sup>-1</sup>.

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Ag+ EMF non-aq 25°C 100% C T K1=3.36 1998PSa (83198)2610  
DH=-29.9 kJ mol<sup>-1</sup>, DS=-36 J K<sup>-1</sup> mol<sup>-1</sup>. Method: Ag electrode.  
Data for 10-55 C. Medium: EtOH

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Ag+ cal oth/un 25°C 0.01M C T H K1=1.51 1997VOa (83199)2611  
For T=35 C K1=1.46; for T=45 C K1=1.40

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Ag+ con non-aq 25°C 100% C I K1=4.79 1993JHa (83200)2612  
Medium: acetone. Data for DMF media.

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Ag+ con oth/un 25°C 0.05M M K1=4.67 1992BUb (83201)2613  
K1=4.58 (by calorimetry); K1=4.65 (by potentiometry)

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Ag+ con non-aq 25°C 100% C K1=5.75 1992STa (83202)2614  
Medium: propylene carbonate. By potentiometry with Ag electrode, K1=5.78.

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Ag+ ix none 25°C 0.0 U K1=1.6 1991BMb (83203)2615

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Ag+ ISE non-aq 25°C 100% C K1=6.86 1989BPa (83204)2616  
Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4

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Ag+ cal non-aq 25°C 100% C H 1986BUe (83205)2617  
Medium: MeOH. DH(K1)=-39.1 kJ mol<sup>-1</sup>, DS(K1)=-44.0 J K<sup>-1</sup> mol<sup>-1</sup>.

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Ag+ ISE non-aq 25°C 100% C K1=7.05 1983ANb (83206)2618  
The equilibration took 7-12 days. Medium: PC, 0.10 M Et4NClO4  
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Ag+ cal alc/w 25°C 100% U H K1=4.58 1980BMa (83207)2619  
Medium: MeOH. DH=-38.3 kJ mol<sup>-1</sup>.  
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Ag+ cal alc/w 25°C 100% U H T K1=4.58 1980LIa (83208)2620  
Medium: MeOH. DH=-38.3 kJ mol<sup>-1</sup>.  
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Ag+ cal oth/un 25°C 0.10M U H T K1=1.5 1976ITb (83209)2621  
DH=-9.08 kJ mol<sup>-1</sup>.  
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Ag+ ISE oth/un 25°C dil A K1=1.6 1971FRa (83210)2622  
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C12H24S6 L 18-Ane-S6 (7196)  
1,4,7,10,13,16-Hexathiacyclooctadecane;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	alc/w	25°C	100%	U		K1=12.67	1996ANa (83693)2623	
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Medium: MeOH, 0.1 M Bu4NClO4  
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C12H25NO5 L CAS 33941-15-0 (4939)  
1,4,7,10,13-Pentaoxa-16-azacyclooctadecane;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	EMF	alc/w	25°C	100%	C	I	K1=6.08 B2= 8.43	2003TCb (83697)2624	
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Medium: 100% MeOH. Also data for EtOH, DMSO, acetonitrile, propylene carbonate and nitromethane.  
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Ag+	EMF	non-aq	25°C	100%	C		K1=3.56 B2= 5.40	1999THa (83698)2625	
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Medium: acetonitrile. Method: Ag/Ag+ electrode.  
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Ag+	EMF	non-aq	25°C	100%	U		K1=3.05 B2= 4.64	1998HTb (83699)2626	
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Medium: DMSO. Method: Ag/Ag+ electrode  
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Ag+	ISE	oth/un	25°C	dil	A		K1=3.3	1971FRa (83700)2627	
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C12H26N2O2S2 L CAS 28843-76-7 (8376)  
1,4-Dioxa-10,13-dithia-7,16-diazacyclooctadecane;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	EMF	non-aq	25°C	100%	C	I	K1=11.5	1994BCe (83722)2628	
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Method: Ag/Ag+ electrode. Medium: 100% MeOH, 0.05 M Et4NClO4. Data for acetone (K1=14.5), CH3CN (9.4), DMF (11.3), DMSO (8.7), CH3NO2 (15.4).  
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Ag+	cal	non-aq	25°C	100%	C	I		1994BFb (83723)2629	
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Medium: 100% MeOH. DH(K1)=-67.7 kJ mol<sup>-1</sup>, DS(K1)=-2.0 J K<sup>-1</sup> mol<sup>-1</sup>. Data for several media: acetone DH(K1)=-94.9, DS(K1)=-12.1; CH<sub>3</sub>CN (-58.9, -5.2)  
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C<sub>12</sub>H<sub>26</sub>N<sub>2</sub>O<sub>4</sub> L CAS 41775-36-4 (2470)  
 1,4,7,13-Tetraoxa-10,16-diazacyclooctadecane;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	con	non-aq	25°C	100%	C	I	K1=>6.5	1993JHa (83728)	2630
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Medium: acetone. Data for DMF media.

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C<sub>12</sub>H<sub>26</sub>N<sub>2</sub>O<sub>4</sub> L Cryptand 2,2 CAS 23978-55-4 (925)  
 4,7,13,16-Tetraoxa-1,10-diazacyclooctadecane;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	EMF	alc/w	25°C	100%	C		K1=9.43	2003TCb (83762)	2631
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Medium: 100% EtOH.

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Ag+	ISE	R4N.X	25°C	0.05M	U	H	K1=15.57	2002BSd (83763)	2632
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Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M Et<sub>4</sub>NClO<sub>4</sub>. By calorimetry: DH(K1)=-82.3 kJ mol<sup>-1</sup>, DS(K1)=17.1 J K<sup>-1</sup> mol<sup>-1</sup>.

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Ag+	EMF	non-aq	30°C	100%	C		K1=9.35	1999KBa (83764)	2633
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Method: Ag/Ag+ electrode. Medium: MeOH.

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Ag+	EMF	non-aq	25°C	100%	U		K1=3.30 B2= 5.26	1998HTb (83765)	2634
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Medium: DMSO. Method: Ag/Ag+ electrode

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Ag+	EMF	non-aq	25°C	100%	C		K1=9.45	1995DGa (83766)	2635
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Medium: benzonitrile, 0.05 M Et<sub>4</sub>NClO<sub>4</sub>. Method: Ag/Ag+ electrode.

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Ag+	EMF	non-aq	25°C	100%	C	I	K1=7.9	1994BCe (83767)	2636
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Method: Ag/Ag+ electrode. Medium: 100% CH<sub>3</sub>CN, 0.05 M Et<sub>4</sub>NClO<sub>4</sub>. Data for acetone (K1=13.4), DMF (9.9), DMSO (7.4), nitromethane (13.6), PC (15.6).

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Ag+	cal	non-aq	25°C	100%	C	I		1994BFb (83768)	2637
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Medium: 100% MeOH. DH(K1)=-51.4 kJ mol<sup>-1</sup>, DS(K1)=5.7 J K<sup>-1</sup> mol<sup>-1</sup>. Data for several media: DMF, DH(K1)=-58.9, DS(K1)=-2.4; PC (-85.7, 3.4).

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Ag+	ISE	non-aq	25°C	100%	U	H	K1=7.6	1990MGa (83769)	2638
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In acetonitrile, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>. DH=-88 kJ mol<sup>-1</sup>.

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Ag+	ISE	non-aq	25°C	100%	C	T H	K1=15.9	1986ALa (83770)	2639
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Medium: propylene carbonate, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>. DH and DS given

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Ag+	ISE	non-aq	25°C	100%	U	H	K1=7.93	1986BUb (83771)	2640
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In CH<sub>3</sub>CN. DH=-30.5 kJ mol<sup>-1</sup>

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Ag+	cal	non-aq	25°C	100%	C	H		1986BUe (83772)	2641
-----	-----	--------	------	------	---	---	--	-----------------	------

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Medium: MeOH. DH(K1)=-44.9 kJ mol<sup>-1</sup>, DS(K1)=40.3 J K<sup>-1</sup> mol<sup>-1</sup>.

-----  
Ag+ ISE alc/w 25°C 100% U H K1=10.02 1985BUb (83773)2642  
Medium: MeOH, 0.05M Et4NClO4. DH=-44.9 kJ mol<sup>-1</sup>  
-----

Ag+ gl R4N.X 25°C 0.10M C K1=7.27 1985CSb (83774)2643  
Medium: 0.10 M Et4NClO4.  
-----

Ag+ ISE non-aq 25°C 100% C K1=13.3 1983ANb (83775)2644  
The equilibration took 7-12 days. Medium: PC, 0.10 M Et4NClO4  
-----

Ag+ ISE non-aq 25°C 100% U I K1=13.63 1983CFa (83776)2645  
Medium: CH3NO2. K1=13.39 in acetone; 9.91 in DMF; K1=7.39 in DMSO;  
7.94 in MeCN; 9.99 in MeOH; 15.57 in propylene carbonate  
-----

Ag+ ISE R4N.X 25°C 0.10M U I K1=7.70 1983CSa (83777)2646  
Also data for 0.05-1.0 mol fraction MeCN/H2O  
-----

Ag+ gl NaClO4 25°C 0.50M U K1=8.08 1981KMb (83778)2647  
-----

Ag+ ix non-aq 25°C 100% U K1=6.21 1981SAa (83779)2648  
Medium: DMSO, 0.1 M R4NX  
-----

Ag+ gl alc/w 25°C 100% C K1=10.18 1980SAa (83780)2649  
B(Ag2L)=15.51  
Medium: MeOH, 0.05 M Et4NClO4  
-----

Ag+ gl R4N.X 25°C 0.10M C K1=7.90 1977ASc (83781)2650  
-----

Ag+ gl R4N.X 25°C 0.10M C H K1=7.8 1975ANa (83782)2651  
Calorimetry: DH1=-38.3 kJ mol<sup>-1</sup>, DS1=20.9  
-----

Ag+ ISE oth/un 25°C dil A K1=7.8 1971FRa (83783)2652  
\*\*\*\*\*  
C12H26N2S4 L CAS 20934-69-4 (8375)  
1,4,10,13-Tetrathia-7,16-diazacyclooctadecane;  
-----

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

Ag+ EMF non-aq 25°C 100% C I K1=13.7 1994BCe (83935)2653  
Method: Ag/Ag+ electrode. Medium: 100% MeOH, 0.05 M Et4NClO4. Data for  
acetone (K1=15.9), CH3CN(10.9), DMF(12.3), DMSO (9.7), nitromethane (16.2)  
-----

Ag+ cal non-aq 25°C 100% C IH 1994BFb (83936)2654  
Medium: 100% MeOH. DH(K1)=-83.2 kJ mol<sup>-1</sup>, DS(K1)=-5.0 J K<sup>-1</sup> mol<sup>-1</sup>. Data  
for several media: acetone, DH(K1)=-109.9, DS=-19.1; CH3CN (-75.7, -13.5).  
\*\*\*\*\*  
C12H26O6 L Pentaglyme CAS 1191-87-3 (2498)  
2,5,8,11,14,17-Hexaoxaoctadecane; (CH3.O.CH2.CH2.O.CH2.CH2.O.CH2.)2  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	cal	oth/un	25°C	0.05M	M		K1=1.80	1992BUb (83984)	2655
Ag+	gl	non-aq	25°C	100%	C		K1=4.44	1989BPa (83985)	2656
Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4									
Ag+	ISE	alc/w	25°C	100%	U	H	K1=1.80	1985BUb (83986)	2657
Medium: MeOH, 0.05M Et4NClO4. DH=-15.8 kJ mol <sup>-1</sup>									
*****									
C12H27N		L					CAS 102-82-9	(1341)	
Tributylamine; (C4H9)3N									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C	I	K1=1.9	1999THa (84039)	2658
Medium: acetonitrile. Method: Ag/Ag+ electrode.									
Also data for medium: DMSO									
Ag+	oth	non-aq	23°C	100%	C		K2=0.26	1988SBa (84040)	2659
Medium: toluene, by I.R. spectroscopy.									
Ag+	gl	alc/w	25°C	50%	U		K1=2.22 B2=3.82	1955ANc (84041)	2660
Medium: 50 mole% EtOH									
*****									
C12H27O4P		L					CAS 126-73-8	(2432)	
Tri-n-butyl phosphate; (C4H9O)3PO									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	non-aq	25°C	100%	U			1985MMb (84117)	2661
							K(AgNO3+L)=3.04		
							K(AgLN03+L)=1.10		
Medium: benzene. Data for other solvents are also given.									
*****									
C12H27P		L					CAS 998-40-3	(170)	
Tri-n-butylphosphine; (CH3.(CH2)3)3P									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	U	H	K1=6.38 B2=10.24 B3=12.57	1987HPb (84131)	2662
In pyridine; medium: 0.1 M Et4NClO4									
*****									
C12H27Sb		L					Tributylstibine CAS 2155-73-9	(5981)	
Tributylantimony; (C4H9)3Sb									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	U	H	K1=2.70 B2=4.71	1987HPb (84139)	2663

In pyridine; medium: 0.1 M Et4NClO4

\*\*\*\*\*

C12H28N2 L CAS 2783-17-7 (357)

1,12-Diaminododecane; H2N.(CH2)12.NH2

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

Ag+ ISE alc/w 25°C 100% U H K1=7.24 1985BUB (84141)2664

Medium: MeOH, 0.05M Et4NClO4. DH=-49.4 kJ mol-1

\*\*\*\*\*

C12H28N4O2 L CAS 296-36-6 (2472)

1,10-Dioxa-4,7,13,16-tetraazacyclooctadecane;

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

Ag+ ISE alc/w 25°C 100% U H K1=11.2 1990CKb (84225)2665

Medium: MeOH. DH=-59.5 kJ mol-1

\*\*\*\*\*

C12H28N4S2 L (6796)

1,10-Dithia-4,7,13,16-tetraazacyclooctadecane;

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

Ag+ gl R4N.X 25°C 0.10M M IH K1=10.4 1990CKb (84246)2666

K(Ag+HL)=9.05

K(AgHL+H)=5.4

K(AgL+H)=7.91

K(Ag+H2L)=6.00

Medium: 0.1 M Me4NNO3. Also K(AgH2L+H)=3.94; K(Ag+H3L)=4.13. In CH3OH:

K1=14.1 (by ISE), DH=-77 kJ mol-1 (by calorimetry).

\*\*\*\*\*

C12H30N6 L CAS 296-35-5 (143)

1,4,7,10,13,16-Hexaazacyclooctadecane; cyclo(-(NH.CH2.CH2)6-)

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

Ag+ EMF KNO3 25°C 0.10M C 1993GRa (84318)2667

K(Ag+H6L=AgH2L+4H)=12.03

Method: Ag/Ag+ electrode.

\*\*\*\*\*

C13H9N L Acridine CAS 260-94-6 (3398)

Acridine;

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

Ag+ ISE alc/w 25°C 59% U B2=4.41 1952FYb (84525)2668

\*\*\*\*\*

C13H9N3OS HL TAN CAS 1147-56-4 (4030)

1-(1',3'-Thiazol-2'-ylazo)-2-hydroxynaphthalene;

-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	dis	oth/un	20°C	0.05M	U		K1=8.67	1966NAa (84611)	2669
*****									
C13H10N2		L					CAS 3003-78-6	(2752)	
5-Methyl-1,10-phenanthroline;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	C		K1=7.3 B2=13.35	1974BOa (84800)	2670
*****									
Ag+	ISE	alc/w	25°C	50%	U		K1=5.34 B2=10.25	1972BBa (84801)	2671
Medium: 50% EtOH, 0.1 M KNO3									
*****									
C13H10O2S		HL					CAS 6310-24-3	(4981)	
4-(Phenylthio)benzoic acid; C6H5.S.C6H4.CO0H									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	0.20M	U		K1=2.44	1968PSb (84980)	2672
Acetate buffer.									
*****									
C13H10O3		HL					CAS 5910-23-6	(3399)	
Benzoyl-2-furoylmethane; C6H5.CO.CH2.CO.C4H3O									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	diox/w	30°C	75%	U		K1=5.74	1967SUa (84996)	2673
*****									
C13H12		L					CAS 101-81-5	(3396)	
Diphenylmethane; C6H5.CH2.C6H5									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sol	oth/un	25°C	?	U		K1=0.52 B2=0.54	1949AKa (85321)	2674
*****									
C13H12N2O		L					CAS 603-54-3	(6137)	
N,N-Diphenylcarbamide; (C6H5)2N.CO.NH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	mixed	25°C	82%	U		K1=9.09 B2=11.12	1979TBd (85337)	2675
Medium: 82% v/v DMFA/H2O; 0.2 M KNO3									
*****									
C13H12N4S		L					CAS 60-10-6	(1801)	
Diphenylthiocarbazone; C6H5.NH.NH.CS.N:N.C6H5									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	NaCl04	25°C	0.10M	U		K1=6.98	1973BSe (85445)	2676

\*\*\*\*\*  
 C13H13N3 L CAS 102-06-7 (994)  
 sym-N,N'-Diphenylguanidine; C6H5.NH.C(NH).NH(C6H5)  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+		oth non-aq	?	100%	U		B2=10.3	1965MMa (85500)	2677
-----	--	------------	---	------	---	--	---------	-----------------	------

Method: coulometric titration. Medium: acetone, 0.05 M Bu4NC104  
 -----

\*\*\*\*\*  
 C13H14N2 L CAS 104986-55-2 (4972)  
 1,3-Bis(2'-pyridyl)-propane; C5H4N.CH2.CH2.CH2.C5H4N  
 -----

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

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Ag+	gl	KNO3	20°C	0.10M	U		K1=3.44 B2=6.43	1970BAa (85571)	2678
-----	----	------	------	-------	---	--	-----------------	-----------------	------

\*\*\*\*\*

C13H14N2O3 HL Antineoplaston CAS 91531-30-5 (8098)  
 3-(N-Phenylacetyl amino)-2,6-piperidinedione;  
 -----

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

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Ag+	gl	alc/w	45°C	50%	C		K1=4.79 B2= 7.79	1996MMc (85625)	2679
-----	----	-------	------	-----	---	--	------------------	-----------------	------

Medium: 50% v/v MeOH/H2O, 0.10 M KNO3.  
 -----

\*\*\*\*\*  
 C13H18O2S HL CAS 22683-51-8 (5002)  
 p-(n-Hexylthio)benzoic acid; CH3(CH2)5.S.C6H4.COOH  
 -----

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

-----

Ag+	ISE	oth/un	25°C	0.20M	U		K1=2.84	1968PSb (86046)	2680
-----	-----	--------	------	-------	---	--	---------	-----------------	------

Acetate buffer  
 -----

\*\*\*\*\*  
 C13H22N2O8 H4L CAS 1198-14-7 (5004)  
 1,2-Diaminopentane-N,N,N',N'-tetraethanoic acid; (HOOCH2)2NCH2CH(C3H7)N(CH2COOH)2  
 -----

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

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Ag+	gl	KNO3	20°C	0.10M	U		K1=8.05 K(AgL+H)=5.80	1981SKf (86217)	2681
-----	----	------	------	-------	---	--	-----------------------	-----------------	------

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\*\*\*\*\*  
 C13H22N2O8 H4L (5003)  
 3-Methyl-1,2-diaminobutane-N,N,N',N'-tetraethanoic acid;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

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Ag+	gl	KNO3	20°C	0.10M	U		K1=8.13 K(AgL+H)=5.84	1981SKf (86272)	2682
-----	----	------	------	-------	---	--	-----------------------	-----------------	------

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\*\*\*\*\*  
 C13H26OS L CAS 60838-34-8 (1929)  
 3-Methyl-5-thiatrideca-2-one; CH3.CO.CH(CH3).CH2.S.C8H17

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	U		K1=4.51 B3=9.85 B4=10.87	1989MSa	(86456)2683

0.1 M NaClO4 in acetone.

\*\*\*\*\*

C13H26O5S6 L 19-Ane-S6-OH (7197)  
3,6,9,12,15,18-Hexathiacyclononadecanol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	U		K1=12.04	1996ANa	(86457)2684

Medium: MeOH, 0.1 M Bu4NC104

\*\*\*\*\*

C13H26O4S2 L (6656)  
1,5-Dithia-8,11,14,17-tetraoxacyclononadecane, 1,5-Dithia-19-crown-6;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ix	none	25°C	0.0	U		K1=11.0	1991BTa	(86459)2685

\*\*\*\*\*

C13H26O5 L (6410)  
15,15-Dimethyl-1,4,7,10,13-pentaoxacyclohexadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	con	none	25°C	0.0	C		K1=0.92	2001KMb	(86466)2686

\*\*\*\*\*

C13H26O6 L 19-Crown-6 CAS 55471-27-7 (8943)  
1,4,7,10,13,16-Hexaoxacyclononadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	con	oth/un	25°C	dil	C		K1=0.93	1999TMa	(86490)2687

Self medium (AgNO3).

\*\*\*\*\*

C13H28N2S2 L (7061)  
9-Methyl-1,5-dithia-9,13-diazacyclohexadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	M		K1=7.27 B(AgHL)=14.83 B(AgH2L)=21.548 B(AgH2L2)=27.30	1995RKa	(86515)2688

\*\*\*\*\*

C14H9NO4 H2L Alizarin Maroon CAS 3963-78-8 (1052)  
3-Amino-1,2-dihydroxyanthraquinone;

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        gl  NaClO4 25°C 0.10M C    M    K1=6.45          1984ISe (86809)2689
                                     B(AgAL)=5.15
                                     B(AgBL)=4.9

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HA is eosin, H2B is rosebengal.

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*****
C14H10      L    Phenanthrene    CAS 85-01-8 (3419)
Phenanthrene;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        sp  non-aq 25°C 100% U          K1=0.587 B2=0.86  1991PZa (86877)2690
-----
Ag+        sol oth/un 25°C   ?  U          K1=0.56  B2=0.82  1949AKa (86878)2691
*****
C14H12      L    trans-Stilbene    CAS 103-30-0 (3420)
trans-Stilbene; C6H5.CH:CH.C6H5
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        dis KNO3  25°C  1.0M U          K1=0.80          1950AKa (87033)2692
                                     K(Ag+AgL)=-0.20
*****
C14H12O2S   HL          CAS 15774-73-9 (5053)
4-(Benzylthio)benzoic acid; C6H5.CH2.S.C6H4.COOH
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE oth/un 25°C 0.20M U          K1=2.76          1968PSb (87336)2693
Acetate buffer
*****
C14H14N4     L          CAS 98240-13-2 (4033)
N,N'-Bis(2'-picolinylidene)-1,2-diaminoethane;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE alc/w  20°C 100% U          K1=9.78 B2=11.00  1966HSc (87677)2694
Medium: MeOH, 0.1 M NaNO3
*****
C14H15N     L          CAS 103-49-1 (4034)
Dibenzylamine; C6H5.CH2.NH.CH2.C6H5
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        gl  mixed 25°C 50% U          K1=2.99 B2=6.70  1955ANb (87712)2695
Medium: 50 mole% EtOH
-----
Ag+        gl  alc/w  25°C 50% U          K1=2.99 B2=6.70  1955ANc (87713)2696

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Medium: 50 mole% EtOH

\*\*\*\*\*

C14H15N3O3S HL Methyl Orange CAS 547-58-0 (1059)

4-(4-(Dimethylamino)-phenylazo)benzenesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	mixed	20°C	75%	C		K1=1.73 B2=2.20 K3=3.66	1987KMa (87760)	2697

Medium: 75% v/v acetone/H2O

\*\*\*\*\*

C14H15PS L (6777)

Diphenylphosphino(methylthio)methane; (C6H5)2P.CH2.SCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	non-aq	25°C	100%	C	H	K1=6.57 B2=10.48 B3=12.69	1990BZa (87800)	2698

Medium: DMSO; DH(K1)=-48.4, DH(B2)=-80.0, DH(B3)+-110 kJ mol<sup>-1</sup>;

DS(K1)=-37, DS(B2)=-68, DS(B3)=-126 J K<sup>-1</sup> mol<sup>-1</sup>

\*\*\*\*\*

C14H16N2 L CAS 1620-43-7 (5033)

1,4-Bis(2'-pyridyl)butane; C5H4N.CH2.CH2.CH2.CH2.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	20°C	0.10M	U		K1=3.72 B2=6.44	1970BAa (87834)	2699

\*\*\*\*\*

C14H16N2O2S2 L CAS 729600-10-6 (9255)

2,3,5,6,8,9-Hexahydro[1,4,7,10]dioxadithiacyclododecino[2,3-b]quinoxaline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	nmr	mixed	25°C	60%	C		K1=3.45	2004HHa (87878)	2700

Method: 1H nmr. Medium: 60% CD2Cl2/CD3CN.

\*\*\*\*\*

C14H18N4 L DPEN CAS 4608-34-3 (1850)

N,N'-Bis-(2-pyridylmethyl)-1,2-diaminoethane; (C5H4N.CH2.NH.CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	U	H	K1=6.15 B(Ag2L2)=15.9	1975APc (88102)	2701

DH(Ag2L2)=-110.0 kJ mol<sup>-1</sup>, DS=-64.4 J K<sup>-1</sup> mol<sup>-1</sup>

\*\*\*\*\*

C14H20O5 L Benzo15-crown-5 CAS 14098-44-3 (608)

2,3-Benzo-1,4,7,10,13-pentaoxacyclopentadeca-2-ene;

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

Ag+ ISE none 25°C dil C K1=0.70 2004KUa (88209)2702  
Method: Ag ion-selective electrode; self medium.

Ag+ con mixed 25°C 90% C K1=1.38 2003ISa (88210)2703  
Medium: 90% v/v DMSO/H2O. By potentiometry (Ag electrode), K1=1.37.

Ag+ con mixed 25°C 20% C K1=4.13 2003SIa (88211)2704  
Medium: 20% w/w propylene carbonate/ethylene carbonate. By potentiometry (Pt/Ag electrode), K1=4.12.

Ag+ con alc/w 25°C 40% C K1=1.08 2002ISa (88212)2705  
Medium: 40% EtOH/H2O. By potentiometry, K1=1.08

Ag+ con alc/w 25°C 40% C K1=1.16 2001ISa (88213)2706  
Medium: 40% v/v EtOH/H2O. By potentiometry, K1=1.15.

Ag+ con non-aq 25°C 100% C K1=4.67 B2= 8.87 2000ICa (88214)2707  
Medium: nitromethane.

Ag+ con non-aq 25°C 100% C H K1=1.91 1999WBa (88215)2708  
Medium: N,N-dimethylformamide. By calorimetry: DH(K1)=-7.6 kJ mol<sup>-1</sup>.

Ag+ con non-aq 25°C 100% C K1=3.50 1993JHa (88216)2709  
Medium: acetone.

Ag+ cal non-aq 25°C 100% C H K1=2.63 1986ICa (88217)2710  
Medium: MeOH. DH(K1)=-17.9 kJ mol<sup>-1</sup>, DS(K1)=-9.6 J K<sup>-1</sup> mol<sup>-1</sup>.

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C14H21NS3 L (7474)  
10-Phenyl-1,4,7-trithia-10-azacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
Ag+ EMF non-aq 25°C 100% C K1=5.92 B2= 7.62 1999ISa (88410)2711  
K(AgL+Ag)=1.2

Medium: acetonitrile, 0.1 M Me4NC104

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C14H22 L CAS 38842-05-6 (3422)  
1,2,3,4-Tetraethylbenzene; C6H2(CH2.CH3)4

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

Ag+ sol oth/un 25°C 0.50M U K1=0.02 19560Aa (88419)2712

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C14H22 L CAS 33673-20-6 (3423)  
1,2,3,5-Tetraethylbenzene; C6H2(CH2.CH3)4

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

Ag+ sol oth/un 25°C 0.50M U K1=0.13 19560Aa (88420)2713

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 C14H22 L CAS 635-81-4 (3424)  
 1,2,4,5-Tetraethylbenzene; C6H2(CH2.CH3)4

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	sol	oth/un	25°C	0.50M	U			K1=0.12	19560Aa (88421)	2714
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 C14H22 L CAS 1571-86-4 (3421)  
 1,4-Di-t-butylbenzene; (CH3)3C.C6H4.C(CH3)3

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	sol	oth/un	25°C	0.50M	U			K1=0.21	19560Aa (88422)	2715
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 C14H22N2O8 H4L CDTA CAS 482-54-2 (200)  
 trans-1,2-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	KN03	20°C	0.10M	U			K1=8.15 K(AgL+H)=6.60	1981SKf (88534)	2716
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Ag+	ISE	KN03	25°C	0.10M	U			K1=8.41	1968WRa (88535)	2717
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Ag+	dis	NaCl04	20°C	0.10M	U			K1=8.15	1963STc (88536)	2718
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 Medium: KCl04

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 C14H23NS2 L (7476)  
 6-Phenyl-3,9-dithia-6-azaundecane;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	EMF	non-aq	25°C	100%	C			K1=3.59	1999ISa (89006)	2719
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 Medium: acetonitrile, 0.1 M Me4NC104

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

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	ISE	KN03	25°C	0.10M	U			K1=8.70	1968WRa (89100)	2720
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 C14H24N2O8 H4L CAS 1633-00-7 (5076)  
 4-Methyl-1,2-diaminopentane-N,N,N',N'-tetraethanoic acid;  
 (HOOCCH2)2NCH2CH(N(CH2COOH)2CH2CH(CH3)2

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	KN03	20°C	0.10M	U			K1=8.10	1981SKf (89623)	2721
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$$K(\text{AgL}+\text{H})=5.85$$

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C14H24N2O10 EGTA CAS 67-42-5 (349)  
Ethyleneglycol-0,0'-bis(2-aminoethyl ether)-N,N,N',N'-tetraethanoic acid; H4L

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	KNO3	25°C	0.10M	U			K1=7.06	1968WRa	(89795)2722

Ag+      gl   KN03   20°C 0.10M U      K1=6.88      1963FCa (89796)2723  
K(Ag+HL)=4.93

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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
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Ag+ ISE R4N.X 25°C 0.05M U H K1=15.17 2002BSd (90308)2724  
Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M  
Et4NClO4. By calorimetry: DH(K1)=-91.3 kJ mol<sup>-1</sup>, DS(K1)=-17.1 J K<sup>-1</sup> mol<sup>-1</sup>.

Ag+ ISE non-aq 25°C 100% C H K1=8.55 1999WBa (90309)2725  
Medium: N,N-dimethylformamide. Method: Ag+ ISE.  
By calorimetry: DH(K1)=-59.6 kJ mol<sup>-1</sup>.

Ag+ EMF non-aq 25°C 100% U I K1=9.34 1993LRa (90310)2726  
Medium: triethylphosphate, 0.05 M Et4NClO4.  
Data also for tri-n-butylphosphate: K1=7.83

Ag+ g1 R4N.X 25°C 0.05M U K1=9.82 1991LRc (90311)2727

Ag+ ISE non-aq 25°C 100% U H K1=7.6 1990Mga (90312)2728  
In acetonitrile, 0.1 M Et4NClO4. DH=-36 kJ mol<sup>-1</sup>.

Ag+ ISE non-aq 25°C 100% C I K1=7.61 1989LEb (90313)2729  
In acetonitrile + 0.1 M Et4NClO4. Also DMSO (6.25), DMA (7.05), DMF (8.83),  
acetone (12.02), sulpholane (13.42) and propylene carbonate (14.95)

Ag+ ISE non-aq 40°C 100% C T H K1=14.9 1986ALa (90314)2730  
Medium: propylene carbonate, 0.1 M Et4NClO4. DH and DS given

Ag+ ISE non-aq 25°C 100% U H K1=7.74 1986BUB (90315)2731  
In CH3CN. DH=-47.5 kJ mol<sup>-1</sup>

Ag+ ISE alc/w 25°C 100% U H K1=10.46 1985BUB (90316)2732  
Medium: MeOH, 0.05M Et4NClO4. DH=-54.6 kJ mol<sup>-1</sup>

Ag+ EMF R4N.X 25°C 0.10M C TIH K1=6.98 1984CSb (90317)2733  
Ag/Ag+ electrode. Medium: 0.10 M Et4NClO4. Data for 5-35 C. DH(K1)=-42.0  
kJ mol<sup>-1</sup>, DS=3.4 J K<sup>-1</sup> mol<sup>-1</sup>. Data 0-1 mol fraction AN/H2O, 0.1 M NaClO4.

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 Ag+ ISE non-aq 25°C 100% U I K1=7.70 1981CRa (90318)2734  
 Medium: MeCN. In DMF: K1=8.60; in EtOH: 9.70; in DMSO: 6.17; in PC: 14.44;  
 in N-methylpropanoamide: 7.64  
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Ag+ ix non-aq 25°C 100% U K1=5.45 1981SAa (90319)2735  
 Medium: DMSO, 0.1 M R4NX. In propylene carbonate: K=15.00  
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Ag+ ISE non-aq 25°C 100% U K1=14.4 1980CRa (90320)2736  
 Medium: Propylene carbonate  
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Ag+ gl alc/w 25°C 100% C K1=10.30 1980SAa (90321)2737  
 Medium: MeOH, 0.05 M Et4NClO4  
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Ag+ EMF non-aq 25°C 100% C K1=8.5 1979BLb (90322)2738  
 Method: Ag electrode. Medium: MeOH, 0.05 M Me4NClO4.  
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Ag+ ISE alc/w 25°C 100% U K1=10.6 1978CSb (90323)2739  
 Medium: MeOH  
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\*\*\*\*\*  
 C14H28N2O4 L Cryptand 2,2,0 CAS 95334-31-9 (6544)  
 4,7,13,16-Tetraoxa-1,10-diazabicyclo[8.8.2]eicosane;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ ISE non-aq 25°C 100% U I K1=9.4 1991ALa (90459)2740  
 Medium: MeCN, 0.05 M Et4NClO4. In acetone K1=13.1, MeOH K1=10.2, DMF K1=9.4,  
 in pyridine K1=5.0.  
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\*\*\*\*\*  
 C14H28O56 L 21-Ane-S6-OH (7198)  
 3,6,9,13,16,19-Hexathiacycloicosanol;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ ISE non-aq 25°C 100% U K1=11.49 1996ANa (90506)2741  
 Medium: methanol; 0.1 M N(C4H9)4ClO4.  
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 C14H28O2 HL Myristic acid CAS 544-63-8 (2543)  
 Tetradecanoic acid; CH3(CH2)12.COOH  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ oth oth/un 20°C var U Kso=-10.25 1981HTc (90507)2742  
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\*\*\*\*\*  
 C14H28O7 L 21-Crown-7 CAS 33089-36-0 (2264)  
 1,4,7,10,13,16,19-Heptaoxacycloheptacosane;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ ISE non-aq 25°C 100% C K1=5.79 1989BP a (90512)2743  
Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4

Ag+ cal alc/w 25°C 100% U H K1=2.46 1980LI a (90513)2744  
Medium: MeOH. DH=-28.9 kJ mol<sup>-1</sup>.

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C14H29NO6 L Aza-21-crown-7 CAS 66843-21-8 (9236)  
1,4,7,10,13,16-Hexaoxa-19-azacycloheneicosane;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ EMF alc/w 25°C 100% C I K1=5.27 B2= 8.34 2003TC b (90549)2745  
Medium: 100% MeOH. Also data for EtOH, DMSO, acetonitrile, propylene carbonate and nitromethane.

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C14H30N2O2 HL CAS 61559-48-6 (8377)  
1,4-Dioxa-7,16-diazacyclooctadecane;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ EMF non-aq 25°C 100% C I K1=9.0 1994BC e (90559)2746  
Method: Ag/Ag+ electrode. Medium: 100% MeOH, 0.05 M Et4NClO4. Data for acetone (K1=12.3), CH3CN (7.6), DMF (9.4), DMSO (6.9), nitromethane (12.9)

Ag+ cal non-aq 25°C 100% C I 1994BF b (90560)2747  
Medium: 100% MeOH. DH(K1)=-50.6 kJ mol<sup>-1</sup>, DS(K1)=1.0 J K<sup>-1</sup> mol<sup>-1</sup>.  
Data for several media: DMF, DH(K1)=-69.0, DS(K1)=-15.2; PC (-107, -22).

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C14H30N2O5 L CAS 23978-10-1 (2955)  
1,10-Diaza-4,7,13,16,19-pentaoxacycloheneicosane;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ EMF alc/w 25°C 100% C I K1=9.42 2003TC b (90600)2748  
Medium: 100% MeOH. Also data for EtOH and propylene carbonate.

Ag+ ISE R4N.X 25°C 0.05M U H K1=15.34 2002BS d (90601)2749  
Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M Et4NClO4. By calorimetry: DH(K1)=-96.4 kJ mol<sup>-1</sup>, DS(K1)=-30.9 J K<sup>-1</sup> mol<sup>-1</sup>.

Ag+ EMF non-aq 25°C 100% C K1=7.49 1999TH a (90602)2750  
Medium: acetonitrile. Method: Ag/Ag+ electrode.

Ag+ EMF non-aq 25°C 100% U K1=6.74 1998HT b (90603)2751  
Medium: DMSO. Method: Ag/Ag+ electrode

Ag+ ISE alc/w 25°C 100% U K1=9.29 1988CF a (90604)2752  
Medium: MeOH

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Ag+ ISE alc/w 25°C 100% U H K1=9.60 1985BU b (90605)2753

Medium: MeOH, 0.05M Et4NClO4. DH=-53.4 kJ mol<sup>-1</sup>

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C14H30N2O5 L (6722)  
7,13-Bis(2-hydroxyethyl)-1,4,10-trioxa-7,13-diazacyclopentadecane

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE non-aq 25°C 100% U K1=9.34 1993RPa (90621)2754  
Medium: dimethylformamide, 0.05 M Et4NClO4.

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C14H30N2S2 L CAS 160389-59-3 (8378)  
1,4-Dithia-7,16-diazacyclooctadecane;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ EMF non-aq 25°C 100% C I K1=10.9 1994BCe (90640)2755  
Method: Ag/Ag+ electrode. Medium: 100% MeOH, 0.05 M Et4NClO4. Data for  
acetone (K1=13.2), CH3CN (8.5), DMF(10.2), DMSO (8.0), nitromethane (14.6)

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Ag+ cal non-aq 25°C 100% C I 1994BFb (90641)2756  
Medium: 100% CH3CN. DH(K1)=-66.6 kJ mol<sup>-1</sup>, DS(K1)=-18.1 J K<sup>-1</sup> mol<sup>-1</sup>.  
Data for several media: DMF, DH(K1)=-87.4, DS(K1)=-29.2; PC (-118, -27).

\*\*\*\*\*

C14H30O7 L CAS 1072-40-8 (2499)  
2,5,8,11,14,17,20-Heptaioxaheneicosane; CH3.0.(CH2.CH2.0)6.CH3

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ gl non-aq 25°C 100% C K1=5.02 1989BPa (90680)2757  
Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4

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Ag+ ISE alc/w 25°C 100% U H K1=1.82 1985BUb (90681)2758  
Medium: MeOH, 0.05M Et4NClO4. DH=-23.0 kJ mol<sup>-1</sup>

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C14H32N2O4 L CAS 102-60-3 (2678)  
Tetra(2-hydroxypropyl)-N,N,N',N'-diaminoethane; (-CH2.N(CH2.CH(OH).CH3)2)2

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ gl oth/un 27°C 0.05M U K1=4.38 1959KEc (90733)2759

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C14H32N4 L CAS 68966-28-9 (5390)  
1,5,10,14-Tetraazacyclooctadecane;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE KNO3 20°C 0.10M U B2=8.0 1984SLb (90807)2760  
B(Ag2L3)=16.6

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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
Ag+		ISE non-aq	25°C	100%	U		K1=5.27 B2=8.66	1991IGa (91141)	2761

Medium: propylenecarbonate, 0.1 M R4NX

Ag+	gl	KNO3	25°C	0.10M	U		K1=5.79 B2=9.68	1989IGb (91142)	2762
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Ag+		ISE non-aq	25°C	100%	U		K1=4.82	1989IGb (91143)	2763
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Medium: CH3CN, 0.1 Et4NClO4

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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
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Ag+	cal	diox/w	25°C	55%	U	H	K1=4.02 B2=8.31 K(Ag+L=Ag(OH)L+H)=-6.97 B(AgHL)=11.63	1986ISa (91199)	2764
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DH(K1)=-34.5, DH(K2)=-40.1 kJ mol<sup>-1</sup>, DS(K1)=-39.0, DS(K2)=-52.0 J K<sup>-1</sup> mol<sup>-1</sup>.  
Medium: 3M LiClO4

Ag+	cal	NaClO4	25°C	3.00M	U	H		1986ISa (91200)	2765
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DH(K1)=-28.2, DH(K2)=-38.9 kJ mol<sup>-1</sup>, DS(K1)=-26, DS(K2)=-56 J K<sup>-1</sup> mol<sup>-1</sup>

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C15H12O5 HL (1261)  
mono-Thiodibenzoylmethane; C6H5.CO.CH2.CS.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	diox/w	30°C	75%	U		K1=5.39	1967SUa (91481)	2766
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C15H12O2 HL Diphenylacac CAS 120-46-7 (362)  
1,3-Diphenylpropane-1,3-dione, Dibenzoylmethane; C6H5.CO.CH2.CO.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	diox/w	30°C	75%	U		K1=6.07	1967SUa (91530)	2767
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C15H15N3O2 HL Methyl Red CAS 493-52-7 (1089)  
2-(4-(Dimethylamino)phenylazo)benzoic acid; (CH3)2N.C6H4.N:N.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+		ISE mixed	20°C	75%	C		K1=1.31 B2=3.27 K3=1.81	1987KMa (91887)	2768
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Medium: 75% v/v acetone/H2O

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C15H15O2As HL CAS 70096-43-4 (4068)



3-(Diphenylarsino)propanoic acid; (C6H5)2As.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	diox/w	20°C	20%	U			K1=3.87 K(Ag+HL)=2.3	1964PIa (91911)	2769
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Medium: 20% dioxan, 0.10 M KNO3

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C15H15O2P HL CAS 85209-41-2 (4067)

3-(Diphenylphosphino)propanoic acid; (C6H5)2P.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	diox/w	20°C	20%	U			K1=3.80 K(Ag+HL)=2.7	1964PIa (91917)	2770
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Medium: 20% dioxan, 0.10 M KNO3

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C15H17PS L (6779)

1-Thiomethyl-2-(diphenylphosphino)ethane; CH3S.CH2.CH2.P(C6H5)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	EMF	non-aq	25°C	100%	C	H		K1=12.08 B2=21.70 B3=24.43 B(Ag2L)=15.05 B(Ag2L2)=26.79	1995BTa (91990)	2771
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Medium: propylene carbonate. DH(K1)=-87 kJ mol<sup>-1</sup>, DS=-61 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=-152, DS=-94; DH(B3)=-182, DS=-143; DH(Ag2L)=-105, DS=-64; DH(Ag2L2)=-201.

Ag+	ISE	non-aq	25°C	100%	C	H		K1=7.18 B2=12.68 B3=15.31	1990BZa (91991)	2772
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Medium: DMSO; DH(K1)=-54.5, DH(B2)=-104, DH(B3)=-137 kJ mol<sup>-1</sup>. With the thio-ethyl analogue: K1=7.40, B2=12.99, B3=15.5; DH(K1)=-56, DH(B2)=-106, DH(B3)=-139

\*\*\*\*\*  
C15H18NO7Cl L CAS 71022-76-9 (2322)

19-Chloro-3,6,9,12,15-pentaoxa-21-azabicyclo[15.3.1]heneicosa-1(21),17,19-teiene-2,16-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	cal	alc/w	25°C	100%	U	H		K1=3.76	1980BMa (91992)	2773
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Medium: MeOH. DH=-33.6 kJ mol<sup>-1</sup>.

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C15H18N2 L CAS 25382-73-6 (5106)

1,5-Bis(2-pyridyl)-pentane; C5H4N.(CH2)5.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	KNO3	20°C	0.10M	U			K1=4.52 K(Ag+HL)=1.7	1970BAa (92000)	2774
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C15H19NO7 L CAS 64397-58-4 (2170)  
3,6,9,12,15-Pentaoxa-21-azabicyclo[15.3.1]heneicosa-1(21),17,19-triene-2,16-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	cal	alc/w	25°C	100%	U	H	K1=4.88	1980BMa (92111)	2775
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Medium: MeOH. DH=-32.8 kJ mol<sup>-1</sup>.

Ag+	cal	alc/w	25°C	100%	U	H	K1=4.88	1980LIb (92112)	2776
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Medium: MeOH. DH=-32.8 kJ mol<sup>-1</sup>.

Ag+	sp	alc/w	25°C	100%	U	H	K1=4.88	1977ILc (92113)	2777
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Medium: Methanol. DH(K1)= -32.8 kJ mol<sup>-1</sup>

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C15H20N4 L DPTN CAS 63671-70-5 (1851)  
N,N'-Bis-(2-pyridylmethyl)-1,3-diaminopropane; (C5H4N.CH2.NH.CH2)2CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	KN03	25°C	0.10M	U	H	K1=6.12	1975APc (92178)	2778
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DH(K1)=-45.6 kJ mol<sup>-1</sup> DS=-32.2 J K<sup>-1</sup> mol<sup>-1</sup>

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C15H23NO5 L CAS 53914-89-9 (2262)  
3,6,9,12,15-Pentaoxa-21-azabicyclo[15.3.1]heneicosa-1(21),17,19-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	cal	alc/w	25°C	100%	U	H	K1=>5.5	1980BMa (92261)	2779
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Medium: MeOH. DH=-34.9 kJ mol<sup>-1</sup>.

Ag+	cal	alc/w	25°C	100%	U	H	K1=>5.5 B2=8.1	1980LIa (92262)	2780
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Medium: MeOH. DH(K1)=-34.9 and DH(K2)=-10.8 kJ mol<sup>-1</sup>.

Ag+	sp	alc/w	25°C	100%	U	H	K1=>6.0 B2=8.6	1977ILc (92263)	2781
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Medium: Methanol. DH(K1)= -34.9 and DH(K2)=-10.8 kJ mol<sup>-1</sup>

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C15H24 L CAS 717-74-8 (3442)  
1,3,5-Tri-isopropylbenzene; C6H3(CH(CH3)2)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sol	oth/un	25°C	0.50M	U		K1=0.20	19560Aa (92327)	2782
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C15H30N2O3 L CAS 72640-82-5 (6040)  
4,7,13-Trioxa-1,10-diazabicyclo[8.5.5]eicosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ EMF non-aq 25°C 100% U I K1=5.68 1993LRa (92509)2783  
 Medium: triethylphosphate, 0.05 M Et4NClO4  
 Data also for tri-n-butylphosphate: K1=4.94

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 Ag+ gl R4N.X 25°C 0.05M U K1=6.04 1991LRc (92510)2784  
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Ag+ ISE non-aq 25°C 100% U I K1=4.29 1990LAa (92511)2785  
 Medium: MeCN, 0.05 M Et4NClO4. In MeOH: K1=7.69

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 Ag+ ISE non-aq 25°C 100% U I K1=5.19 1986LSc (92512)2786  
 Medium: DMF, 0.05 M Et4NClO4. Method: Ag wire electrode. In MeOH K1=7.62.  
 Data also in acetone,PC,CH3CN etc.

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C15H33N L CAS 621-77-2 (8928)  
 Tripentylamine;

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 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ cal R4N.X 25°C 0.05M C H 2002BSd (92560)2787  
 Medium: propylene carbonate, 0.05 M Et4NClO4. DH(K1)=-32.1 kJ mol-1.

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C15H33NO6 L CAS 70384-51-9 (838)  
 Tris(3,6-dioxaheptyl)amine; (CH3.CH2.O.CH2.CH2.O.CH2.)3N

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 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE R4N.X 25°C 0.05M U H K1=8.47 2002BSd (92561)2788  
 Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M Et4NClO4. By calorimetry: DH(K1)=-67.9 kJ mol-1, DS(K1)=-66.4 J K-1 mol-1

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 Ag+ ISE non-aq 25°C 100% C T H K1=8.5 1986ALa (92562)2789  
 Medium: propylene carbonate, 0.1 M Et4NClO4. DH, DS given.

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C15H33N3O3 L CAS 220811-82-5 (7916)  
 1,4,7-Tris((S)-2-hydroxypropyl)-1,4,7-triazacyclononane;

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 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ EMF non-aq 25°C 100% U K1=7.59 2001WBa (92572)2790  
 Medium: DMF, 0.05 M Et4NClO4. Also data for the 1,4,7-tris((S)-2-hydroxy-2-phenylethyl- derivative (K1=7.59).

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C16H12N2 L (6848)  
 6-Phenyl-2,2'-bipyridyl;

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 Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE non-aq 22°C 100% U K1=3.38 B2=9.21 1991IGb (92906)2791  
 Medium: MeCN

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C16H12N2O4S                      H2L      Tropeolin 000      CAS 573-89-7 (1092)  
4-(4-Hydroxy-1-naphthylazo)benzene-4-sulfonic acid, Orange 1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	mixed	20°C	75%	C			K1=3.31    B2=3.35 K3=4.47	1987KMa (93010)	2792

Medium: 75% v/v acetone/H2O

\*\*\*\*\*  
C16H16N2                                      L                                      CAS 104-71-2 (4074)  
1,2-Bis(benzylideneamino)ethane; C6H5.CH:N.CH2.CH2.N:CH.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	alc/w	20°C	100%	U			K1=6.48    B2=8.36	1966HSc (93656)	2793

Medium: MeOH, 0.1 M NaNO3

\*\*\*\*\*  
C16H20NP                                      L                                      CAS 115290-71-6 (5883)  
Diphenyl-(2-N,N-dimethylaminoethyl)phosphine; (C6H5)2P.CH2.CH2.N(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C	H		K1=12.87    B2=22.09 B3=24.45 B(Ag2L)=15.74 B(Ag2L2)=28.66	1999DDb (93948)	2794

Medium: propylenecarbonate, 0.1 M NEt4ClO4. By calorimetry: DH(K1)=-94 kJ mol<sup>-1</sup>, DH(B2)=-152, DH(B3)=-184, DH(Ag2L)=-107, DH(Ag2L2)=-215.

\*\*\*\*\*  
C16H20N2                                      L                                      (5146)  
1,6-Bis(2-pyridyl)-hexane; C5H4N.(CH2)6.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO3	20°C	0.10M	U			K1=4.1 K(Ag+HL)=1.9	1970BAa (93954)	2795

\*\*\*\*\*  
C16H22N4                                      L      DPTE                                      CAS 81747-99-1 (1852)  
N,N-Bis-(2-pyridyl-methyl)-1,4-diaminobutane; (C5H4N.CH2.NH.CH2.CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	U	H		K1=5.82	1975APc (94178)	2796

DH(K1)=-48.1 kJ mol<sup>-1</sup>      DS=50.6 J K<sup>-1</sup> mol<sup>-1</sup>

\*\*\*\*\*  
C16H24O6                                      L      Benzo18-crown-6      CAS 14098-24-9 (513)  
2,3-Benzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ ISE none 25°C dil C M 2004KUa (94368)2797  
Method: Ag ion-selective electrode; self medium. For extraction into  
CHCl3,  $K(\text{Ag}+\text{L}(\text{org})+\text{HA}(\text{org})=\text{AgLA}(\text{org})+\text{H})=2.46$ . HA is picric acid.

Ag+ con non-aq 25°C 100% C K1=4.89 B2= 8.58 2000ICa (94369)2798  
Medium: nitromethane.

Ag+ cal non-aq 25°C 100% C H K1=2.71 1999WBa (94370)2799  
Medium: N,N-dimethylformamide.  $\text{DH}(\text{K1})=-17.4 \text{ kJ mol}^{-1}$ .

Ag+ ISE none 25°C 0.0 U K1=1.83 1989TKa (94371)2800

Ag+ cal non-aq 25°C 100% C H K1=4.23 1986ICa (94372)2801  
Medium: MeOH.  $\text{DH}(\text{K1})=-39.7 \text{ kJ mol}^{-1}$ ,  $\text{DS}(\text{K1})=-52.4 \text{ J K}^{-1} \text{ mol}^{-1}$ .

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C16H25N04 L (7444)  
1-Aza-4,7,10,13-tetraoxa-1-phenyl-cyclopentadecane;

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

Ag+ EMF non-aq 25°C 100% C K1=0.78 1998ACa (94507)2802  
Medium: CH3CN

Ag+ con mixed 25°C 90% C TIH K1=4.93 1998MTa (94508)2803  
Medium: 90% CH3CN/H2O. Data for 20-35 C.  $\text{DH}(\text{K1})=3.4 \text{ kJ mol}^{-1}$ ,  $\text{DS}(\text{K1})=82.8 \text{ J K}^{-1} \text{ mol}^{-1}$ . In 50% CH3CN/H2O,  $\text{K1}=3.99$ ,  $\text{DH}(\text{K1})=3.5$ ,  $\text{DS}(\text{K1})=64.8$ .

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C16H25NS4 L (7475)  
13-Phenyl-1,4,7,10-tetrathia-13-azacyclopentadecane;

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

Ag+ EMF non-aq 25°C 100% C K1=5.67 B2= 8.07 1999ISa (94523)2804  
Medium: acetonitrile, 0.1 M Me4NClO4

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C16H26 L (3452)  
Pentaethylbenzene;  $\text{C}_6\text{H}(\text{CH}_2\text{CH}_3)_5$

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

Ag+ sol oth/un 25°C 0.50M U K1=0.02 19560Aa (94539)2805

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C16H26N2O4 L (5849)  
2,3-Benzo-1,4,10,13-tetraoxa-7,16-diazacyclooctadeca-2-ene;

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

Ag+ ISE alc/w 25°C 100% U K1=9.74 1988CFa (94553)2806  
Medium: MeOH

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C16H28N2O7 L CAS 31249-96-4 (8934)  
 4,7,13,16,21-Pentaoxa-1,10-diazabicyclo[8.8.5]tricosane-2,9-dione;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	R4N.X	25°C	0.05M	U	H		K1=4.26	2002BSd (94699)	2807

Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M Et4NClO4. By calorimetry: DH(K1)=-27.8 kJ mol<sup>-1</sup>, DS(K1)=-12.1 J K<sup>-1</sup> mol<sup>-1</sup>.  
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C16H28N4O4 L CAS 120129-34-2 (8665)  
 1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diacetonitrile;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	R4N.X	25°C	0.05M	C	H		K1=6.71	2002BSb (94805)	2808

Medium: 0.05 M Et4NClO4. DH(K1)=-44.7 kJ mol<sup>-1</sup>, DS(K1)=-22 J K<sup>-1</sup> mol<sup>-1</sup>.  
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C16H30O6 L CAS 17454-53-4 (5148)  
 Cyclohexyl-18-crown-6;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	oth/un	25°C	dil	A			K1=1.8	1971FRa (95098)	2809

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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
Ag+	ISE	R4N.X	25°C	0.05M	U	H		K1=18.89	2002BSd (95137)	2810

Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M Et4NClO4. By calorimetry: DH(K1)=-113.6 kJ mol<sup>-1</sup>, DS(K1)=-21.1 J K<sup>-1</sup> mol<sup>-1</sup>

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Ag+	ISE	non-aq	25°C	100%	C	H		K1=12.53	1999Wba (95138)	2811
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Medium: N,N-dimethylformamide. Method: Ag+ ISE.  
 By calorimetry: DH(K1)=-85.2 kJ mol<sup>-1</sup>.

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Ag+	EMF	non-aq	25°C	100%	C			K1=9.56	1995CDb (95139)	2812
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Medium: DMSO, 0.1 M Et4NClO4.

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Ag+	ISE	non-aq	25°C	100%	U			K1=11.1	1990MGa (95140)	2813
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In acetonitrile, 0.1 M Et4NClO4.

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Ag+	ISE	non-aq	25°C	100%	C	I		K1=11.17	1989LEb (95141)	2814
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In acetonitrile + 0.1 M Et4NClO4. Also DMSO (9.58), DMA (10.69), DMF(12.37) acetone (15.86), sulpholane (16.80) and propylene carbonate (18.63)

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Ag+	ISE	non-aq	30°C	100%	C	T H		K1=18.5	1986ALa (95142)	2815
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Medium: propylene carbonate, 0.1 M Et4NClO4. DH and DS given

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Ag+ ISE non-aq 25°C 100% U H K1=11.29 1986BUb (95143)2816  
In CH3CN. DH=-62.7 kJ mol<sup>-1</sup>

Ag+ ISE alc/w 25°C 100% U H K1=14.44 1985BUb (95144)2817  
Medium: MeOH, 0.05M Et4NClO4. DH=-81.9 kJ mol<sup>-1</sup>

Ag+ ISE R4N.X 25°C 0.10M U I K1=11.90 1983CSa (95145)2818  
Also data for 0.05-1.0 mol fraction MeCN/H2O

Ag+ gl R4N.X 25°C 0.10M U K1=12.43 1982NSb (95146)2819

Ag+ ISE non-aq 25°C 100% U I K1=11.24 1981CRa (95147)2820  
Medium: MeCN. In PC: K1=18.50; in EtOH: 13.84; in DMF: 12.41; in DMSO: 9.61;  
in N-methylpropanoamide: 10.45

Ag+ ix non-aq 25°C 100% U K1=9.73 1981SAa (95148)2821  
Medium: DMSO, 0.1 M R4NX. In propylene carbonate: K1=18.80

Ag+ ISE non-aq 25°C 100% U K1=18.5 1980CRa (95149)2822  
Medium: Propylene carbonate

Ag+ gl alc/w 25°C 100% C K1=14.30 1980SAa (95150)2823  
B(Ag2L)=19.50  
Medium: MeOH, 0.05 M Et4NClO4

Ag+ ISE alc/w 25°C 100% U K1=14.64 1978CSb (95151)2824  
Medium: MeOH

Ag+ gl R4N.X 25°C 0.05M U K1=10.6 1975LSc (95152)2825  
\*\*\*\*\*  
C16H32N4O4 L (6794)  
4,10-Bis(N,N-dimethylethanamido)-1,7-dioxa-4,10-diazacyclododecane;

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

Ag+ cal alc/w 25°C 100% U H K1=>5 1990KMb (95316)2826  
Medium: MeOH. DH=-59.1 kJ mol<sup>-1</sup>

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C16H32N4O6 L CAS 98608-90-3 (1322)  
N,N'-Bis(carbamoylmethyl)-1,7,10,16-tetraoxa-4,13-diazacyclooctadecane;

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

Ag+ gl NaClO4 25°C 0.50M U K1=6.25 1981KMb (95330)2827  
\*\*\*\*\*  
C16H34N2 L CAS 296-30-0 (8379)  
1,10-Diazacyclooctadecane;

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

Ag+ EMF non-aq 25°C 100% C I K1=4.8 1994BCe (95401)2828  
 Method: Ag/Ag+ electrode. Medium: 100% MeOH, 0.05 M Et4NClO4. Data for  
 acetone (K1=9.4), CH3CN (4.8), DMF(6.4), DMSO (4.1), nitromethane (10.5)

Ag+ cal non-aq 25°C 100% C I 1994BFb (95402)2829  
 Medium: 100% MeOH. DH(K1)=-48.1 kJ mol-1, DS(K1)=-20.8 J K-1 mol-1.  
 Data for several media: DMF, DH(K1)=-61.0, DS(K1)=-24.5; PC (-95.3, -27).  
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C16H34N2O5 L (6953)  
 7,13-Bis(2-methoxyethyl)-1,4,10-trioxa-7,13-diazacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ EMF alc/w 25°C 100% U I K1=9.86 1994LLa (95407)2830  
 Medium: MeOH, 0.05M Et4NClO4. Also data for acetonitrile: K=7.08,  
 PC: K=12.2, DMF: K=8.37, H2O: K=1.8 and pyridine: K=6.24.  
 \*\*\*\*\*

C16H34N2O6 L CAS 83809-94-3 (8664)  
 7,16-Bis(methoxymethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ ISE R4N.X 25°C 0.05M C H K1=9.19 2002BSb (95430)2831  
 Medium: 0.05 M Et4NClO4. DH(K1)=-60.3 kJ mol-1, DS(K1)=26 J K-1 mol-1.  
 \*\*\*\*\*

C16H34N2O6 L CAS 69930-74-1 (1321)  
 N,N'-Bis(2-hydroxyethyl)-1,7,10,16-tetraoxa-4,13-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ ISE non-aq 25°C 100% U K1=9.13 1993RPa (95438)2832  
 Medium: dimethylformamide, 0.05 M Et4NClO4.

Ag+ gl NaClO4 25°C 0.50M U K1=7.27 1981KMb (95439)2833  
 \*\*\*\*\*

C16H34N4O2 L CAS 60598-04-1 (1530)  
 4,7-Dimethyl-1,4,7,10-tetraaza-13,18-dioxabicyclo[8,5,5]eicosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ ISE R4N.X 25°C 0.10M U K1=12.7 1978LMa (95465)2834  
 K(Ag+HL)=6.3  
 \*\*\*\*\*

C16H36N4 L CAS 3713-77-7 (5391)  
 1,6,11,16-Tetraazacycloeicosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ ISE KNO3 20°C 0.10M U K1=5.7 B2=8.3 1984SLb (95525)2835  
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C16H36N4O2 L (6803)  
1,10-Oxa-4,7,13,16-tetramethyl-4,7,13,16-tetraazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	ISE	alc/w	25°C	100%	U	H		K1=13.4	1990CKb (95542)	2836
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Medium: MeOH. DH=-84.3 kJ mol<sup>-1</sup>

C16H36N4O4 L (6703)  
1,4,7,10-Tetrakis(2-hydroxyethyl)-1,4,7,10-tetraazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	EMF	non-aq	25°C	100%	U	I		K1=9.35	1996WPa (95563)	2837
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Medium: acetonitrile, 0.05 M NEt<sub>4</sub>ClO<sub>4</sub>. In propylene carbonate K1=14.00

Ag+	gl	alc/w	25°C	100%	C	I		K1=12.57	1993TCa (95564)	2838
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Medium: MeOH, 0.05 M Et<sub>4</sub>NClO<sub>4</sub>. In DMF, K1=11.16

C16H36N4S2 L (6797)  
1,10-Dithia-4,7,13,16-tetramethyl-4,7,13,16-tetraazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	R4N.X	25°C	0.10M	M	IH		K1=9.47 K(Ag+HL)=8.06 K(AgHL+H)=4.6 K(AgL+H)=7.41	1990CKb (95583)	2839
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Medium: 0.1 M Me<sub>4</sub>NNO<sub>3</sub>. In MeOH: K1=14.6 (byISE), DH=-102.1 kJ mol<sup>-1</sup>(calor.)

C17H14NP L CAS 37943-90-1 (7725)  
2-(Diphenylphosphino)pyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	gl	non-aq	25°C	100%	U	IH		K1=6.34 B2=10.19 B3=12.64	2000CDb (95785)	2840
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Medium: DMSO. Also data for medium of propylene carbonate.

DH(K1)=-51.0 kJ mol<sup>-1</sup>, DH(B2)=-87.8, DH(B3)=-124.1.

C17H16N2S2 L CAS 239107-97-2 (3778)  
4-[4'-(Benzothiazol-2"-yl)phenyl]-1-thia-4-azacyclohexane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	nmr	diox/w	25°C	52%	C			K1=3.29	1999ISb (96045)	2841
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Medium: 52% v/v 1,4-dioxane-water. Method: 1H nmr.

C17H20N4O6 HL Riboflavin CAS 83-88-5 (1438)  
7,8-Dimethyl-10(D-1'-ribityl)isoalloxazine, Vitamin B2, Vitamin H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	KCl	25°C	0.10M	U		K1=7.6	1959BMb (96326)	2842
*****									
C17H22NP		L					(7480)		
1-(Diphenylphosphino)-3-(dimethylamino)propane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C	H	K1=13.4 B2=20.87 B3=24.02 B(Ag2L)=16.80 B(Ag2L2)=31.1	1999DDb (96398)	2843
Medium: propylenecarbonate, 0.1 M NEt4ClO4. By calorimetry: DH(K1)=-95 kJ mol-1, DH(B2)=-142.2, DH(B3)=-174.6, DH(Ag2L)=-108, DH(Ag2L2)=-223.									
*****									
C17H26OS		L					(5720)		
1-Phenyl-3-thiadodeca-1-one; C6H5.CO.CH2.CH2.S.C8H17									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	U		K1=4.36 B2=7.43 B3=9.48 B4=10.46	1989MSa (96508)	2844
0.1 M NaClO4 in acetone									
*****									
C17H34N2O4		L					CAS 142565-14-8 (6562)		
4,7,13,16-Tetraoxa-1,10-diazabicyclo[8.8.5]tricosane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C		K1=14.51	1993DLb (96739)	2845
Medium: propylene carbonate, 0.05 M Et4NClO4.									
*****									
Ag+	gl	R4N.X	25°C	0.05M	C	I	K1=9.31	1992CGb (96740)	2846
Medium: Et4NClO4. In MeOH: K1=11.13; in DMF K1=9.40									
*****									
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
Ag+	ISE	non-aq	25°C	100%	U		K1=7.0 B2=13.8	1981TLa (96851)	2847
Medium: Propylene carbonate									
*****									
C18H12N2		L					CAS 6135-89-5 (3498)		
5-Phenyl-1,10-phenanthroline;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ ISE alc/w 25°C 50% U K1=4.99 B2=10.14 1972BBa (96860)2848  
Medium: 50% EtOH, 0.1 M KNO3

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C18H15As L CAS 603-32-7 (2653)  
Triphenylarsine; (C6H5)3As

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE alc/w 25°C 100% U K1=3.5 B2=8.5 1987TSa (96964)2849  
B3=11.2  
B4=13.7

Medium: EtOH, 0.01 M

-----  
Ag+ ISE non-aq 25°C 100% C H K1=1.44 1986AHa (96965)2850  
Medium: Pyridine; DH(K1)=-15.6 kJ mol<sup>-1</sup>

-----  
Ag+ ISE non-aq 25°C 100% C H K1=3.56 B2=5.37 1977ABc (96966)2851  
K3=1.31  
Medium: DMSO, 0.1 M NH4ClO4; DH(K1)=-34.5, DH(K2)=-19.4, DH(K3)=-44.5 kJ m<sup>-1</sup>

-----  
Ag+ sp alc/w 25°C 75% U I K1=5.70 19660Ba (96967)2852  
Medium: 75.4% MeOH. K1=5.81(55.6% MeOH)

\*\*\*\*\*

C18H15Bi L CAS 603-33-8 (5402)  
Triphenylbismuthine;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE non-aq 25°C 100% C K1=<-1 1986AHa (96977)2853  
Medium: pyridine, 0.1 M Et4NClO4

-----  
Ag+ ISE non-aq 25°C 100% C H K1=0.8 1977ABc (96978)2854  
Medium: DMSO, 0.1 M NH4ClO4; DH(K1)=-0.5 kJ mol<sup>-1</sup>

\*\*\*\*\*

C18H15N L Triphenylamine CAS 603-34-9 (2902)  
Triphenylamine; (C6H5)3N

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE non-aq 25°C 100% C K1=<-1 1986AHa (96979)2855  
Medium: pyridine, 0.1 M Et4NClO4

-----  
Ag+ ISE non-aq 25°C 100% C H K1=0.19 1977ABc (96980)2856  
Medium: DMSO, 0.1 M NH4ClO4; DH(K1)=-1 kJ mol<sup>-1</sup>

\*\*\*\*\*

C18H15N3O3S HL Tropeolin 00 CAS 554-73-4 (1091)  
Orange IV; C6H5.NH.C6H4.N:N.C6H4.HSO3

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

Medium: 75% v/v acetone/H<sub>2</sub>O

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C18H15N6O8AsS	H3L	Sulfarsazen	CAS 5941-02-6	(4140)
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4-(4'-Sulfophenylazo)anilinoazo-4-nitrobenzene-2-arsonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
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Ag+ sp oth/un ? ? U M 1969SFa (97087)2858

$$K(2\text{Ag}(\text{phen})_2 + \text{L}) = 18.0$$
$$K(2\text{Ag}(\text{phen})_2 + \text{HL}) = 11.9$$
$$K(2\text{Ag}(\text{bpy})_2 + \text{HL}) = 11.0$$

\*\*\*\*\*

C18H15O3PS                      HL                      CAS 16704-71-5    (3365)

3-Diphenylphosphino-benzene sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
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Ag+ ISE NaCl04 25°C 0.10M U K1=8.15 B2=14.10 1958ACb (97103)2859

$$K_3 = 5.40$$

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C18H15O3PS                      HL                      CAS 54262-24-7    (327)

4-(Diphenylphosphino)benzenesulfonic acid; (C6H5)2P.C6H4.SO3H

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

Ag+ cal NaClO4 25°C 0.10M U H K1=8.15 B2=14.10 1976HMa (97112)2860

B3=19.50

B4=23.3

$\Delta H(K1) = -71 \text{ kJ mol}^{-1}$ ,  $\Delta S = -84 \text{ J K}^{-1} \text{ mol}^{-1}$ ;  $\Delta H(B2) = -131.6$ ,  $\Delta S = -168$ ;

DH(B3)=-195, DS=-282; DH(B4)=-225

\*\*\*\*\*

C18H15O9AsS3                      H3L                      CAS 103953-83-9    (326)

Tris-(3-sulfophenyl)arsine; (H<sub>3</sub>S.C<sub>6</sub>H<sub>4</sub>)<sub>3</sub>As

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

Ag+ cal NaCl04 25°C 0.50M U H K1=4.96 B2=6.7 1976HMa (97116)2861

Calorimetry:  $\Delta H(K1) = -31 \text{ kJ mol}^{-1}$ ,  $\Delta S = -10 \text{ J K}^{-1} \text{ mol}^{-1}$ ,  $\Delta H(B2) = -48$ ,  $\Delta S = -34$

Ag+ ISE NaCl04 25°C 0.20M U K1=5.36 1958ACb (97117)2862

\*\*\*\*\*

C18H15P L CAS 603-35-0 (621)

Triphenylphosphine; (C6H5)3P

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ ISE non-aq 25°C 100% C H K1=9.95 B2=17.17 1993DDa (97122)2863

B3=21.41  
 Medium: propylenecarbonate, 0.1 M Et4NClO4. By calorimetry, DH(K1)=-70.5 kJ mol-1, DS=-46; DH(B2)=-122.3, DS=-82; DH(B3)=-167, DS=-150.

-----  
 Ag+ ISE alc/w 25°C 100% U K1=6.2 B2=12.6 1987TSa (97123)2864  
 B3=16.8  
 B4=20.1

Medium: EtOH

-----  
 Ag+ ISE non-aq 25°C 100% C H K1=4.31 B2=6.45 1986AHa (97124)2865  
 K3=1.14

Medium: Pyridine; DH(K1)=-34.4, DH(K2)=-22.0, DH(K3)=-16.1 kJ mol-1

-----  
 Ag+ ISE non-aq 25°C 100% U I K1=3.9 B2=10.01 1985TSb (97125)2866  
 B3=13.79  
 B4=17.13

In CH3CN; data for EtOH solution are also given

-----  
 Ag+ ISE non-aq 25°C 100% C H K1=6.58 B2=10.73 1977ABc (97126)2867  
 K3=2.44

Medium: DMSO, 0.1 M NH4ClO4; DH(K1)=-51.8, DH(K2)=-38.1, DH(K3)=-36.3 kJ m-1

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C18H15Sb L CAS 603-36-1 (2654)

Triphenylantimony; (C6H5)3Sb

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	U		K1=2.7 B2=6.8 B3=10.0 B4=12.0	1987TSa (97153)	2868

-----  
 Ag+ ISE non-aq 25°C 100% C H K1=1.09 1986AHa (97154)2869  
 Medium: Pyridine; DH(K1)=-11.6 kJ mol-1

-----  
 Ag+ ISE non-aq 25°C 100% C H K1=3.16 B2=4.61 1977ABc (97155)2870  
 K3=1.45

Medium: DMSO, 0.1 M NH4ClO4; DH(K1)=-32.1, DH(K2)=-8.6, DH(K3)=-57.1 kJ mol-1

\*\*\*\*\*

C18H18N2O2S2 L CAS 729600-12-8 (9257)

2,3,5,6,8,9-Hexahydrobenzo[g][1,4,7,10]dioxadithiacyclododecino[2,3-b]quinoxaline;

-----  

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	nmr	non-aq	25°C	60%	C		K1=3.20	2004HHa (97228)	2871

Method: 1H nmr. Medium: 60% CD2Cl2/CD3CN.

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C18H18N4 L CAS 16858-01-8 (1528)

Tris(2-pyridylmethyl)amine; (C5H4NCH2)3N

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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$$DH1 = -68.6 \text{ kJ mol}^{-1}, DS1 = -82.8$$

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C18H19N5OS                      L                      (6139)

5,7-Dimethyl-4a,7a-diphenyloctahydroimidazo(4,5-e)triazine-6-one-3-thione:

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
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Ag+ ISE mixed 25°C 82% U K1=9.45 B2=12.19 1979TBd (97318)2873

Medium: 82% v/v DMFA/H<sub>2</sub>O; 0.2 M KNO<sub>3</sub>

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C18H25N3O7S2 L CAS 211120-80-8 (8706)

24-Hydroxy-22-nitro-9,12-dioxa-6,15-dithia-3,18-diazabicyclotetracos-1(24),20,22-triene-4,17-di;

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

Ag+ cal alc/w 25°C 70% C H K1=5.91 1998HBc (97646)2874

Medium: 70% MeOH/H<sub>2</sub>O. DH(K1)=-57.6 kJ mol<sup>-1</sup>, DS(K1)=-80.2 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*

C18H27N2O3F L CAS 173417-90-8 (6571)

23-Fluoro-4,7,20-trioxa-1,10-diazatricyclo[8.7.5.1,12,16]tricos-12,14,16(23)triene  
;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ EMF non-aq 25°C 100% C H K1=6.39 1999BHa (97744)2875

Medium: MeOH, 0.05 M Et<sub>4</sub>NClO<sub>4</sub>. By calorimetry DH(K1)=-38.5 kJ mol<sup>-1</sup>.

Method: Ag/Ag<sup>+</sup> electrode.

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C18H27N5O6 L CAS 211120-75-1 (8705)

21-Hydroxy-6,12-dimethyl-19-nitro-9-oxa-3,6,12,15-tetraazabicycloheptacos-1,17,19-triene-4,14-;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ cal alc/w 25°C 70% C H K1=3.49 1998HBc (97767)2876

Medium: 70% MeOH/H<sub>2</sub>O. DH(K1)=-34.5 kJ mol<sup>-1</sup>, DS(K1)=-49.0 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*

C18H28N2O3                      L                      CAS 154148-31-9    (6510)

4,7,20-Trioxa-1,10-diazatricyclo[8.7.5.1,12,16]tricos-12,14,16(23)-triene:

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ EMF non-aq 25°C 100% C H K1=5.82 1999BHa (97769)2877

Medium: MeOH, 0.05 M Et<sub>4</sub>NClO<sub>4</sub>. By calorimetry DH(K1)=-37.7 kJ mol<sup>-1</sup>.

Method: Ag/Ag<sup>+</sup> electrode.

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C18H30 L CAS 841-07-6 (3497)  
1,3,5-Tri-t-butylbenzene; C6H3(C(CH3)3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sol	oth/un	25°C	0.50M	U	T H	K1=-0.49	19560Aa (97897)	2878
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K1=-0.19(1.6 C). DH(K1)=-13.8 kJ mol<sup>-1</sup>, DS=-56 J K<sup>-1</sup> mol<sup>-1</sup>

C18H30 L CAS 604-88-6 (3496)  
Hexaethylbenzene; C6(CH2.CH3)6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	sol	oth/un	25°C	0.50M	U		K1=0.44	19560Aa (97898)	2879
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C18H30N4O12 H6L TTTHA CAS 869-52-3 (694)  
Triethylenetetraaminehexaethanoic acid; ((HOOCH2)2N.CH2.CH2.N(CH2.COOH).CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	ISE	KN03	?	0.10M	U		K1=8.7 B(AgHL)=17.6 B(AgH2L)=23.8 B(Ag2L)=14.0 B(Ag2HL)=20.5	1972RHb (97985)	2880
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B(Ag2H2L)=25.6, B(Ag3L)=17.0

Ag+	ISE	KN03	25°C	0.10M	U		K1=8.67 K(AgL+H)=9.11 B(Ag2L)=5.22	1968WRa (97986)	2881
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C18H30S2 L CAS 160581-15-7 (5416)  
1,3-Bis[(pentylthio)methyl]benzene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	dis	KN03	22°C	0.5M	U		B(Ag(NO3)L)(org)=1.77 B(Ag(NO3)L2)(org)=3.90 B(Ag3(NO3)3L3)(aq)=12.17	1998FRa (98117)	2882
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Organic medium: chloroform. B(Ag(NO3)L)(org): Ag(aq)+NO3(aq)+L(org)=  
Ag(NO3)L(org). B(Ag3(NO3)3L3)(aq): Ag(aq)+NO3(aq)+L(org)=Ag3(NO3)3L3(aq).

C18H31NS4 L (7477)  
9-Phenyl-3,6,12,15-tetrathia-9-azaheptadecane:

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

Ag+	EMF	non-aq	25°C	100%	C		K1=6.47 B2= 7.97 K(AgL+Ag)=2.2	1999ISa (98118)	2883
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Medium: acetonitrile, 0.1 M Me4NClO4

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C18H32N2O8 L CAS 24951-52-8 (2560)

Cryptand-2,2,2-dilactam

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag+ ISE R4N.X 25°C 0.05M U H K1=5.17 2002BSd (98131)2884

Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M

Et4NClO4. By calorimetry: DH(K1)=-38.2 kJ mol<sup>-1</sup>, DS(K1)=-29 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*

C18H32N4O4 L CAS 62987-13-7 (8666)

1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-dipropanenitrile;

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

Ag+ ISE R4N.X 25°C 0.05M C H K1=7.87 2002BSb (98135)2885

Medium: 0.05 M Et4NClO4. DH(K1)=-62.5 kJ mol<sup>-1</sup>, DS(K1)=-59.7 J K<sup>-1</sup> mol<sup>-1</sup>.

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C18H33P L CAS 2622-14-2 (169)

Tri-(cyclohexyl)phosphine; (C6H11)3P

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

Ag+ EMF non-aq 25°C 100% U H K1=7.19 B2=11.10 1987HPb (98306)2886

In pyridine; medium: 0.1 M Et4NClO4

\*\*\*\*\*

C18H36N2O4S2 L CAS 28843-77-8 (8380)

4,7,13,16-Tetraoxa-21,24-dithia-1,10-diazabicyclo[8,8,8]hexacosane;

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

Ag+ EMF non-aq 25°C 100% C I K1=13.4 1994BCe (98400)2887

Method: Ag/Ag+ electrode. Medium: 100% MeOH, 0.05 M Et4NClO4. Data for acetone (K1=15.2), CH3CN (10.4), DMF(11.7), DMSO (8.6), CH3NO2 (16.7)

-----  
Ag+ cal non-aq 25°C 100% C I 1994BFb (98401)2888

Medium: 100% MeOH. DH(K1)=-93.2 kJ mol<sup>-1</sup>, DS(K1)=-16.7 J K<sup>-1</sup> mol<sup>-1</sup>.

Data for several media: DMF, DH(K1)=-77.8, DS(K1)=-11.0; PC (-112, -35).

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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  
-----

Ag+ ISE R4N.X 25°C 0.05M U H K1=16.65 2002BSd (98451)2889

Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M

Et4NClO4. By calorimetry: DH(K1)=-102.6 kJ mol<sup>-1</sup>, DS(K1)=-27 J K<sup>-1</sup> mol<sup>-1</sup>.

-----  
Ag+ EMF non-aq 30°C 100% C K1=11.57 1999KBa (98452)2890



Method: Ag/Ag<sup>+</sup> electrode. Medium: MeOH.

-----  
Ag<sup>+</sup> ISE non-aq 25°C 100% C H K1=10.00 1999WBa (98453)2891  
Medium: N,N-dimethylformamide. Method: Ag<sup>+</sup> ISE.  
By calorimetry: DH(K1)=-68.1 kJ mol<sup>-1</sup>.  
-----

Ag<sup>+</sup> EMF non-aq 25°C 100% C K1=7.15 1995CDb (98454)2892  
Medium: DMSO, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>.  
-----

Ag<sup>+</sup> EMF non-aq 25°C 100% C I K1=9.01 1995DGa (98455)2893  
Medium: acetonitrile, 0.05 M Et<sub>4</sub>NClO<sub>4</sub>. Method: Ag/Ag<sup>+</sup> electrode.  
In benzonitrile, K1=10.00.  
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Ag<sup>+</sup> EMF non-aq 25°C 100% C I K1=13.4 1994BCe (98456)2894  
Method: Ag/Ag<sup>+</sup> electrode. Medium: 100% acetone, 0.05 M Et<sub>4</sub>NClO<sub>4</sub>.  
In 100% nitromethane, 0.05 M Et<sub>4</sub>NClO<sub>4</sub>, K1=15.4.  
-----

Ag<sup>+</sup> cal non-aq 25°C 100% C I 1994BFb (98457)2895  
Medium: 100% DMF. DH(K1)=-56.4 kJ mol<sup>-1</sup>, DS(K1)=0.7 J K<sup>-1</sup> mol<sup>-1</sup>.  
Data for several media: acetone, DH(K1)=-82.2, DS=-5.7; PC (-104, -11.1).  
-----

Ag<sup>+</sup> EMF oth/un 25°C 0.05M M K1=12.23 1992BUb (98458)2896  
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Ag<sup>+</sup> ISE non-aq 25°C 100% U K1=8.88 1992CSc (98459)2897  
Ag/Ag<sup>+</sup> electrode. Medium: MeCN, 0.05 M Bu<sub>4</sub>NClO<sub>4</sub>  
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Ag<sup>+</sup> ISE non-aq 25°C 100% U H K1=8.9 1990MGa (98460)2898  
In acetonitrile, 0.1 M Et<sub>4</sub>ClO<sub>4</sub>. DH=-50 kJ mol<sup>-1</sup>.  
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Ag<sup>+</sup> ISE non-aq 25°C 100% C I K1=8.88 1989LEb (98461)2899  
In acetonitrile + 0.1 M Et<sub>4</sub>NClO<sub>4</sub>. Also DMSO (7.34), DMA (8.37), DMF (9.92),  
acetone (13.64), sulpholane (14.61) and propylene carbonate (16.27)  
-----

Ag<sup>+</sup> ISE non-aq 25°C 100% U H K1=8.94 1986BUb (98462)2900  
In CH<sub>3</sub>CN. DH=-53.3 kJ mol<sup>-1</sup>  
-----

Ag<sup>+</sup> ISE alc/w 25°C 100% U H K1=12.22 1985BUb (98463)2901  
Medium: MeOH, 0.05M Et<sub>4</sub>NClO<sub>4</sub>. DH=-68.3 kJ mol<sup>-1</sup>  
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Ag<sup>+</sup> cal non-aq 25°C 100% U H 1985DGa (98464)2902  
Medium: propylene carbonate. DH1 = -96.9 kJ mol<sup>-1</sup>  
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Ag<sup>+</sup> cal non-aq 25°C 100% U H 1985DGa (98465)2903  
Medium: acetonitrile. DH1 = -53.5 kJ mol<sup>-1</sup>  
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Ag<sup>+</sup> ISE non-aq 25°C 100% M K1=17.71 1985DGb (98466)2904  
Medium: nitromethane  
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Ag<sup>+</sup> cal non-aq 25°C 100% U H 1984DGa (98467)2905  
Medium: N,N-dimethylformamide. DH1=-65.6 kJ mol<sup>-1</sup>; DS1=-27.6 J K<sup>-1</sup> mol<sup>-1</sup>.

-----  
 Ag+ cal non-aq 25°C 100% U H 1984DGa (98468)2906  
 Medium: DMSO. DH1=-51.4 kJ mol<sup>-1</sup>; DS1=-34.3 J K<sup>-1</sup> mol<sup>-1</sup>  
 -----

Ag+ gl non-aq 25°C 100% U I K1=8.99 1982CGb (98469)2907  
 Medium: MeCN, 0.1 M Et4NClO4. K1=8.15 (mol.fraction 0.50); K1=8.30 (mf 0.70)  
 K1=8.55 (mf 0.05); 8.21 (mf 0.10); 8.03 (mf 0.3)  
 -----

Ag+ ISE non-aq 25°C 100% U I K1=8.99 1981CRa (98470)2908  
 Medium: MeCN. In DMSO: K1=7.30; in EtOH: 11.51; in PC: 16.33; in DMF: 10.07;  
 in N-methylpropanoamide: 9.17  
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Ag+ ix non-aq 25°C 100% U K1=7.15 1981SAa (98471)2909  
 Medium: DMSO, 0.1 M R4NX. In propylene carbonate: K1=16.33  
 -----

Ag+ ISE non-aq 25°C 100% U K1=16.3 1980CRa (98472)2910  
 Medium: Propylene carbonate  
 -----

Ag+ gl alc/w 25°C 100% C K1=12.00 1980SAa (98473)2911  
 B(Ag2L)=15.25  
 Medium: MeOH, 0.05 M Et4NClO4  
 -----

Ag+ EMF non-aq 25°C 100% C I K1=12.3 1979BLb (98474)2912  
 Method: Ag electrode. Medium: MeOH, 0.05 M Me4NClO4.  
 Also K1=9.6 (H2O), 7.2 (DMSO), 8.7 (CH3CN), 9.5 (tetramethylurea).  
 -----

Ag+ ISE alc/w 25°C 100% U K1=12.2 1978CSb (98475)2913  
 Medium: MeOH  
 -----

Ag+ gl R4N.X 25°C 0.10M C K1=9.85 1977ASc (98476)2914  
 -----

Ag+ gl R4N.X 25°C 0.10M C H K1=9.6 1975ANa (98477)2915  
 Medium: Me4NNO3. DH(K1)=-53.5 kJ mol<sup>-1</sup>, DS=-5  
 -----

Ag+ gl R4N.X 25°C 0.05M C K1=9.6 1975LSc (98478)2916  
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C18H36N4O4 L (6795)  
 4,10-Bis(N,N-dimethylpropanamido)-1,7-dioxa-4,10-diazacyclododecane;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	cal	alc/w	25°C	100%	U	H	K1=>5	1990KMb (98778)	2917
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Medium: MeOH. DH=-82.5 kJ mol<sup>-1</sup>  
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 C18H38N2O6 L CAS 72911-99-0 (649)  
 4,13-Bis(2-methoxyethyl)-1,7,10,16-tetraoxo-4,13-diazacyclooctadecane;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	NaClO4	25°C	0.50M	U		K1=7.25	1981KMb (98830)	2918
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C19H14O7S                      H4L      Pyrocatechol Vi    CAS 369596-29-2    (709)  
 Pyrocatechol Violet,  
 3-[3,4-Dihydroxyphenyl-3-hydroxy-4-oxo-2,5-cyclohexadien-1-ylidenemethyl-b.;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KNO3	25°C	0.10M	U				1997USa (99099)	2919
									K(Ag+H2L)=7.23	
									K(Ag+HL)=11.51	

\*\*\*\*\*

C19H17PS                      L                                      (6778)  
 Diphenylphosphino(phenylthio)methane; (C6H5)2P.CH2.SC6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C	H		K1=10.05    B2=16.48    B3=20.65	1995BTa (99201)	2920
Medium: propylene carbonate. DH(K1)=-73.2 kJ mol <sup>-1</sup> , DS(K1)=-53 J K <sup>-1</sup> mol <sup>-1</sup> ; DH(B2)=-114.3, DS(B2)=-68; DH(B3)=-157, DS(B3)=-131.										

Ag+	ISE	non-aq	25°C	100%	C	H		K1=6.25    B2=10.21    B3=12.78	1990BZa (99202)	2921
Medium: DMSO; DH(K1)=-47.4, DH(B2)=-82.3, DH(B3)=-110.9 kJ mol <sup>-1</sup> ; DS(K1)=-39, DS(B2)=-80, DS(B3)=-127 J K <sup>-1</sup> mol <sup>-1</sup>										

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C19H18NP                      L                                      (7481)  
 1-(Diphenylphosphino)-2-(2-pyridyl)ethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C	H		K1=13.10    B2=20.91    B3=24.08    B(Ag2L)=15.57    B(Ag2L2)=30.18	1999DDb (99203)	2922
Medium: propylenecarbonate, 0.1 M NEt4ClO4. By calorimetry: DH(K1)=-91 kJ mol <sup>-1</sup> , DH(B2)=-142, DH(B3)=-174, DH(Ag2L)=-107, DH(Ag2L2)=-214.										

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C19H20N2S3                      L                                      CAS 239107-98-3    (3779)  
 7-[4'-(Benzothiazol-2"yl)phenyl]-1,4-dithia-7-azacyclononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	nmr	diox/w	25°C	52%	C			K1=5.05	1999ISb (99306)	2923
Medium: 52% v/v 1,4-dioxane-water. Method: 1H nmr.										

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C19H24N2O2                      L                                      (1564)  
 1,5-Diaza-7,8:13,14-dibenzo-9,12-dioxacyclpentadecan-7,13-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+ EMF mixed 25°C 90% C K1=4.22 2003ISa (99359)2924  
Medium: 90% v/v DMSO/H2O. Method: Ag electrode.  
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Ag+ con non-aq 25°C 100% C T H K1=5.60 2000MTc (99360)2925  
Medium: acetonitrile. Data for 20-35 C. DH(K1)=-3.45 kJ mol<sup>-1</sup>, DS(K1)=  
41.5 J K<sup>-1</sup> mol<sup>-1</sup>.  
\*\*\*\*\*

C19H27N3O7S2 L CAS 211120-71-7 (8704)  
24-Methoxy-22-nitro-9,12-dioxa-6,15-dithia-3,18-diazabicyclotetracosane-1,20,22-trien  
e-4,17-dione;  
-----

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

Ag+ cal alc/w 25°C 70% C H K1=5.66 1998HBc (99399)2926  
Medium: 70% MeOH/H2O. DH(K1)=-61.5 kJ mol<sup>-1</sup>, DS(K1)=-98.0 J K<sup>-1</sup> mol<sup>-1</sup>.  
\*\*\*\*\*

C19H39N3O5 L CAS 60598-00-7 (1537)  
4-Methyl-1,4,10-triaza-7,13,16,21,24-pentaoxa-bicyclo[8,8,8]hexacosane;  
-----

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

Ag+ ISE R4N.X 25°C 0.10M U K1=10.8 1978LMa (99484)2927  
K(Ag+HL)=5.6  
\*\*\*\*\*

C20H19O2P L CAS 14180-51-9 (2652)  
Di(4-Methoxyphenyl)phenylphosphine; (CH3OC6H4)2P(C6H5)  
-----

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

Ag+ ISE alc/w 25°C 100% U K1=6.5 B2=13.1 1987TSa (99886)2928  
B3=17.9  
B4=21.4  
Medium: EtOH  
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C20H19PS L (6780)  
1-Thiophenyl-2-(diphenylphosphino)ethane; C6H5S.CH2.CH2.P(C6H5)2  
-----

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

Ag+ EMF non-aq 25°C 100% C H K1=10.90 B2=19.48 1995BTa (99887)2929  
B3=22.8  
B(Ag2L)=13.43  
Medium: propylene carbonate. DH(K1)=-78 kJ mol<sup>-1</sup>, DS=-53 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)  
=-137, DS=-87; DH(B3)=-177, DS=-158; DH(Ag2L)=-100, DS=-78.  
-----

Ag+ ISE non-aq 25°C 100% C H K1=7.00 B2=11.77 1990BZa (99888)2930  
B3=14.41  
Medium: DMSO. DH(K1)=-53.5, DH(B2)=-96.5; DH(B3)=-133 kJ mol<sup>-1</sup>;  
DS(K1)=-45, DS(B2)=-98, DS(B3)=-174 J K<sup>-1</sup> mol<sup>-1</sup>

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C20H20NP L (7479)  
1-(Diphenylphosphino)-2-(dimethylamino)benzene; (C6H5)2P.C6H4.N(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C	H	K1=10.90 B2=19.94 B3=22.04	1999DDb (99889)	2931

Medium: propylenecarbonate, 0.1 M NEt4ClO4. By calorimetry: DH(K1)=-73 kJ mol-1, DH(B2)=-125, DH(B3)=-183.

\*\*\*\*\*

C20H22O4 L CAS 82645-28-1 (8945)  
o,o'-(Triethyleneglycoldiyl)-(Z)-stilbene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	con	non-aq	25°C	100%	C		K1=4.5 B2= 8.19	2000ICa (99926)	2932

Medium: nitromethane.

\*\*\*\*\*

C20H24O6 L DiBz-18-Crown-6 CAS 14187-32-7 (604)  
2,3:11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	alc/w	25°C	100%	C		K1=4.16	2004ZTa (100061)	2933

Medium: 100% methanol, 0.05 M Bu4NClO4. Method: Ag electrode.

Ag+	con	mixed	25°C	90%	C		K1=2.02	2003ISa (100062)	2934
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Medium: 90% v/v DMSO/H2O. By potentiometry (Ag electrode), K1=1.98.

Ag+	con	mixed	25°C	20%	C		K1=4.55	2003SIa (100063)	2935
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Medium: 20% w/w propylene carbonate/ethylene carbonate. By potentiometry (Pt/Ag electrode), K1=4.53.

Ag+	con	non-aq	25°C	100%	C		K1=6.22	2000ICa (100064)	2936
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Medium: nitromethane.

Ag+	EMF	non-aq	30°C	100%	C		K1=2.59	1999KBa (100065)	2937
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Method: Ag/Ag+ electrode. Medium: N-methyl-2-pyrrolidinone.

Ag+	con	non-aq	25°C	100%	C	I	K1=4.52	1993JHa (100066)	2938
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Medium: acetone. Data for DMF media.

Ag+	con	non-aq	25°C	100%	C		K1=4.86	1992STa (100067)	2939
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Medium: propylene carbonate. By potentiometry with Ag electrode, K1=4.86.

Ag+	sol	none	25°C	0.0	U	I	K1=1.41	1975SNa (100068)	2940
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C20H26N2O2S L (7109)  
3,4:9,10-Dibenzo-1,12-diaza-5,8-dioxa-15-thiacycloheptadecan-3,9-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	alc/w	25°C	95%	U			K1=8.6	1995ABa (100303)	2941
Medium: 95% MeOH/H2O. Also data for diaza-dioxa-thia ligands with smaller and larger ring sizes.										
Ag+	gl	alc/w	25°C	95%	U			K1=12.0	1994ABg (100304)	2942
Medium: 95% v/v MeOH/H2O, 0.1 M Et4NClO4										
*****										
C20H26N2O3 L (7551)										
1,12-Diaza-3,4:9:10-dibenzo-5,8,15-trioxacycloheptadecan-3,9-diene;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	U			K1=7.1	1994ABg (100307)	2943
Medium: 95% v/v MeOH/H2O, 0.1 M Et4NClO4										
*****										
C20H26N2O3 L OdienNtnH4 CAS 85735-84-8 (5943)										
1,15-Diaza-3,4:12,13-dibenzo-5,8,11-trioxacycloheptadecan-3,12-diene;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	C			K1=6.7	1998DLa (100315)	2944
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.										
Ag+	gl	alc/w	25°C	95%	U			K1=7.1	1994ABh (100316)	2945
Medium: 95% MeOH/H2O, 0.10 M NEt4ClO4. For the 4-thia analogue: K1=12.0.										
*****										
C20H26N2S3 L (6958)										
9,10:15,16-Dibenzo-1,7-diaza-4,11,14-trithiacycloheptadeca-9,15-diene;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	U			K1=12.4	1994ABh (100322)	2946
Medium: 95% MeOH/H2O, 0.10 M NEt4ClO4. For the 4-oxa analogue: K1=10.3										
*****										
C20H27N3O2 L OenNdienH4 CAS 77016-63-8 (5938)										
1,12,15-Triaza-3,4:9,10-dibenzo-5,8-dioxacycloheptadecan-3,9-diene;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	C			K1=8.7	1998DLa (100365)	2947
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.										
Ag+	gl	alc/w	25°C	95%	U			K1=8.7	1994ABg (100366)	2948
Medium: 95% v/v MeOH/H2O, 0.1 M Et4NClO4										
Ag+	gl	alc/w	25°C	95%	U			K1=8.7	1994ABh (100367)	2949
Medium: 95% MeOH/H2O, 0.1 M NEt4ClO4. For the 11,14-dithia analogue: K1=8.6										

\*\*\*\*\*  
 C20H27N3O2 L CAS 168279-86-5 (7556)  
 1,8,15-Triaza-3,4:12,13-dibenzo-5,11-dioxacycloheptadecan-3,12-diene;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	C		K1=10.6 B(AgHL)=15.4	1998DLA (100377)	2950

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

\*\*\*\*\*  
 C20H27N3S2 L (7660)  
 1,12,15-Triaza-3,4:9,10-dibenzo-5,8-dithiacycloheptadecan-3,9-diene;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	U		K1=8.6	1994ABg (100381)	2951

Medium: 95% v/v MeOH/H2O, 0.1 M Et4NClO4

\*\*\*\*\*  
 C20H29N5 L (6718)  
 3,4:9,10-Dibenzo-1,5,8,12,15-pentaazacycloheptadeca-3,9-diene  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	alc/w	25°C	95%	U		K1=10.3	1995ABa (100406)	2952

Medium: 95% MeOH. Data for the 15-thia- (10.8) and 15-oxa- (9.8) analogues

\*\*\*\*\*  
 C20H31N2O4F L CAS 173417-87-3 (6461)  
 26-Fluoro-4,7,13,16-tetraoxa-1,10-diazatricyclo[8.8.7.1,20,24]hexacosa-20,22,24(26)-triene;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C H		K1=10.69	1999BHa (100436)	2953

Medium: MeOH, 0.05 M Et4NClO4. By calorimetry DH(K1)=-54.8 kJ mol<sup>-1</sup>.

Method: Ag/Ag+ electrode.

\*\*\*\*\*  
 C20H32N2O4 L CAS 61696-66-0 (6497)  
 4,7,13,16-Tetraoxa-1,10-diazatricyclo[8.8.7.1,20,24]hexacosa-20,22,24(26)-triene;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C H		K1=10.39	1999BHa (100453)	2954

Medium: MeOH, 0.05 M Et4NClO4. By calorimetry DH(K1)=-62.5 kJ mol<sup>-1</sup>.

Method: Ag/Ag+ electrode.

\*\*\*\*\*  
 C20H36O6 L DiCy-18-crown-6 CAS 16069-36-6 (1653)  
 2,3:11,12-Dicyclohexyl-1,4,7,10,13,16-hexaoxacyclooctadecane;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ EMF alc/w 25°C 100% C K1=4.62 2004ZTa (100601)2955  
Medium: 100% methanol, 0.05 M Bu4NClO4. Method: Ag electrode.

Ag+ con mixed 25°C 90% C K1=2.09 2003ISa (100602)2956  
Medium: 90% v/v DMSO/H2O. By potentiometry (Ag electrode), K1=1.99.

Ag+ con mixed 25°C 20% C K1=4.93 2003SIa (100603)2957  
Medium: 20% w/w propylene carbonate/ethylene carbonate. By potentiometry (Pt/Ag electrode), K1=4.94.

Ag+ con alc/w 25°C 40% C K1=1.86 2002ISa (100604)2958  
Medium: 40% EtOH/H2O. By potentiometry, K1=1.84

Ag+ con alc/w 25°C 40% C K1=1.89 2001ISa (100605)2959  
Medium: 40% v/v EtOH/H2O. By potentiometry, K1=1.87.

Ag+ EMF non-aq 25°C 100% C T K1=3.68 1998PSa (100606)2960  
DH=-25.9 kJ mol<sup>-1</sup>, DS=-17 J K<sup>-1</sup> mol<sup>-1</sup>. Method: Ag electrode.  
Data for 10-55 C. Medium: EtOH.

Ag+ con non-aq 25°C 100% C I K1=5.38 1993JHa (100607)2961  
Medium: acetone. Data for DMF media.

Ag+ con non-aq 25°C 100% C K1=5.16 1992STa (100608)2962  
Medium: propylene carbonate. By potentiometry with Ag electrode, K1=5.16.

Ag+ cal oth/un 25°C 0.10M U H K1=2.26 1976ITb (100609)2963  
DH(Syn)=0.29 kJ mol<sup>-1</sup>.

Ag+ ISE oth/un 25°C dil A K1=1.8 1971FRa (100610)2964  
Data for isomer B. For isomer A, K1=2.3

Ag+ cal oth/un 25°C 0.0 U K1=1.59 1971INa (100611)2965  
Isomer B

Ag+ oth oth/un ? ? U K1=1.59 1970MSa (100612)2966

\*\*\*\*\*  
C20H40N2O4 L (6625)  
1,10-Diaza-4,7,13,16-tetraoxabicyclo[8.8.8]hexacosane;

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

Ag+ gl non-aq 25°C 100% C I K1=6.23 1992LSc (100773)2967  
Medium: MeCN, 0.05 M Et4NClO4. In MeOH K1=10.0; in DMF K1=7.7

\*\*\*\*\*  
C20H44N4O3 L CAS 120981-97-7 (8970)  
4,5,11,17-Tetraethyl-1,8,14-trioxa-4,5,11,17-tetraazacyclononadecane;

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



Ag+ cal non-aq 25°C 100% C H K1=3.46 1990DJb (100915)2968  
Medium: DMSO. DH(K1)=-53.9 kJ mol<sup>-1</sup>, DS(K1)=-114 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*

C20H44N4O4 L CAS 102202-74-4 (6041)

1,4,7,10-Tetra-(2-hydroxypropyl)-1,4,7,10-tetraazacyclododecane;

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

Ag+ EMF non-aq 25°C 100% C I K1=8.51 1997DMd (100921)2969

Method: Ag electrode. Medium: acetonitrile, 0.05 M Et4NClO4.

Also data for PC (K1=15.3), MeOH (12.8), DMF (11.30), H2O (11.86).

\*\*\*\*\*

C20H44N4O4 L (6730)

1,4,7,10-Tetra-(2-methoxyethyl)-1,4,7,10-tetrazacyclododecane;

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

Ag+ gl non-aq 25°C 100% U I K1=12.30 1996SDa (100934)2970

Medium: MeCN, 0.05 M Et4NClO4. In MeOH: K1=14.2, DMF: 13.73, DMSO: 11.48,  
propylene carbonate: 15.3

\*\*\*\*\*

C21H16 L CAS 77979-28-3 (3511)

3-Methylcholanthrene;

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

Ag+ sol oth/un 25°C 0.5M U K1=0.52 1954KLa (101057)2971

\*\*\*\*\*

C21H24N4 L (931)

Tris((6-methyl-2-pyridyl)methyl)-amine; (CH3.C5H3N.CH2)3N

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

Ag+ gl KNO3 20°C 0.10M C K1=7.53 1977AHc (101242)2972

B(AgHL)=12.14

B(AgH2L)=14.25

B(Ag2L)=9.84

\*\*\*\*\*

C21H28N2O3 L OdienNtnH4 CAS 85735-85-9 (5944)

1,15-Diaza-3,4:12,13-dibenzo-5,8,11-trioxacyclooctadecan-3,12-diene;

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

Ag+ gl alc/w 25°C 95% C K1=6.0 1998DLA (101323)2973

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

\*\*\*\*\*

C21H29N3O2 L OenNentnH4 CAS 77016-65-0 (5941)

1,12,16-Triaza-3,4:9,10-dibenzo-5,8-dioxacyclooctadecan-3,9-diene;

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

-----  
 Ag+ gl alc/w 25°C 95% C K1=8.8 1998DLA (101347)2974  
 Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.  
 -----

Ag+ EMF alc/w 25°C 95% U K1=8.8 1995ABa (101348)2975  
 Medium: 95% MeOH/H2O. Also data for triaza-dioxa ligands with smaller and  
 larger ring sizes.  
 -----

\*\*\*\*\*  
 C22H20N2O4 L CAS 207461-96-9 (8955)  
 (5Z)-12,13,20,21-Tetrahydrotribenzo[b,f,l][1,8,11,14,4,5]tetraoxadiazacyclohexadeci  
 ne;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	non-aq	RT	100%	C	I	K1=2.1	2000GDa (101693)	2976

Medium: acetonitrile. In MeOH, K1=3.7.  
 -----

\*\*\*\*\*  
 C22H26O5 L CAS 160978-39-2 (8944)  
 o,o'-(Tetraethyleneglycoldiyl)-(Z)-stilbene;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	con	non-aq	25°C	100%	C		K1=6.04	2000ICa (101995)	2977

Medium: nitromethane.  
 -----

\*\*\*\*\*  
 C22H28O7 L Dibenzo-21-Cr-7 CAS 14098-41-0 (2876)  
 2,3:11,12-Dibenzo-1,4,7,10,13,16,19-heptaoxacycloheptacosane-2,11-diene;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	con	non-aq	25°C	100%	C	I	K1=3.15	1993JHa (102035)	2978

Medium: acetone. Data for DMF media.  
 -----

Ag+ cal non-aq 25°C 100% C H K1=2.41 1986ICa (102036)2979  
 Medium: MeOH. DH(K1)=-7.61 kJ mol<sup>-1</sup>, DS(K1)=20.6 J K<sup>-1</sup> mol<sup>-1</sup>.  
 -----

\*\*\*\*\*  
 C22H30N2O3 L CAS 257890-46-3 (8930)  
 7,13-Diphenyl-1,4,10-trioxa-7,13-diazacyclopentadecane;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE R4N.X		25°C	0.05M	U	H	K1=12.91	2002BSd (102101)	2980

Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M  
 Et4NClO4. By calorimetry: DH(K1)=-83.1 kJ mol<sup>-1</sup>, DS(K1)=-32.6 J K<sup>-1</sup> mol<sup>-1</sup>.  
 -----

\*\*\*\*\*  
 C22H30N2O4 L CAS 173547-24-5 (7560)  
 1,15-Diaza-3,4:12,13-dibenzo-5,8,11,18-tetraoxacycloeicosan-3,12-diene;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+ gl alc/w 25°C 95% C K1=6.2 1998DLA (102106)2981  
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

\*\*\*\*\*

C22H31N3O3 L CAS 12859-24-4 (7557)  
1,15,18-Triaza-3,4:12,13-dibenzo-5,8,11-trioxacycloeicosan-3,12-diene;

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

Ag+ gl alc/w 25°C 95% C K1=8.1 1998DLA (102173)2982  
B(AgHL)=14.9

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

\*\*\*\*\*

C22H34N6 [22]-Py2N4 (5952)  
Di-(2,6-pyridyl)-1,4,9,12,15,20-hexaazacyclodocosane;

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

Ag+ gl NaClO4 25°C 0.01M U K1=6.28 1985NSC (102231)2983  
B(Ag2L)=10.88

\*\*\*\*\*

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]hexacosa-5-ene;

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

Ag+ EMF non-aq 25°C 100% C K1=8.59 1999THa (102261)2984  
Medium: acetonitrile. Method: Ag/Ag+ electrode.

-----  
Ag+ ISE NaClO4 25°C 0.10M U K1=9.28 1984CTc (102262)2985

\*\*\*\*\*

C22H40O7 L (6596)  
2,3,11,12,-Dicyclohexano-1,4,7,10,13,16,19-heptaoxacycloheneicosane;  
dicyclohexyl-21-crown-7;

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

Ag+ sol non-aq 25°C 100% C K1=3.87 1999KCa (102375)2986  
Medium: methanol.

-----  
Ag+ sol non-aq 25°C 100% C K1=7.03 1999KCa (102376)2987

Medium: propylene carbonate.

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C22H48N6O2 L CAS 39678-22-3 (1542)  
4,7,13,16-Tetramethyl-1,4,7,10,13,16-hexaaza-21,24-dioxabicyclohexacosane;

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

Ag+ ISE R4N.X 25°C 0.10M U K1=13.0 1978LMA (102480)2988  
K(Ag+HL)=9.7

\*\*\*\*\*

C23H23NO5 L CAS 218619-58-0 (7808)  
Dibenzo-pyridino-18-crown-6;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+		EMF alc/w	25°C	100%	C			K1=5.64	2004ZTa (102649)	2989
Medium: 100% methanol, 0.05 M Bu4NClO4. Method: Ag electrode.										

Ag+		EMF alc/w	25°C	100%	C T H			K1=5.45	2001SZb (102650)	2990
Medium: methanol, 0.5 M Bu4NClO4. Method: Ag electrode.										
Data for 5-35 C. DH(K1)=-28.7 kJ mol <sup>-1</sup> , DS(K1)=11 J K <sup>-1</sup> mol <sup>-1</sup> .										

\*\*\*\*\*

C23H32N2O5 L (7368)  
9-(2'-Hydroxy-5'-methylbenzyl)-3,6,12,15-Tetraoxa-9,21-diazabicyclo[15.3.1]heneicosatriene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+		cal alc/w	25°C	100%	U H			K1=>9	1997ZBa (102780)	2991
Medium: MeOH. Data also for several similar 5'-substituted ligands										

\*\*\*\*\*

C23H32N2O5 L (7369)  
9-(2'-Pyridylmethyl)-3,6,12,15-tetraoxa-19-methyl-21-hydroxy-9-azabicyclo[15.3.1]heneicosatriene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+		cal alc/w	25°C	100%	U H			K1=6.33	1997ZBa (102784)	2992
Medium: MeOH										

\*\*\*\*\*

C23H33N3O3 L CAS 173547-19-8 (7558)  
1,15,19-Triaza-3,4:12,13-dibenzo-5,8,11-trioxacycloheneicosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+		gl alc/w	25°C	95%	C			K1=8.0 B(AgHL)=14.8	1998DLA (102812)	2993
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.										

\*\*\*\*\*

C24H16N2 L Bathophenan CAS 1662-01-7 (2749)  
4,7-Diphenyl-1,10-phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+		gl alc/w	25°C	50%	C I			K1=5.13 B2=10.02	1974B0a (102856)	2994
In 50% acetone/H2O: K1=5.20, B2=10.33										

\*\*\*\*\*

C24H20B- HL CAS 4358-26-3 (2489)  
Tetraphenylborate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	alc/w	25°C	100%	U	I		1972KCa (102879)	2995
Medium: MeOH. Kso=-14.4. In H2O: Kso=-17.2									

Ag+	con	non-aq	rt	100%	U			1970DMa (102880)	2996
Medium: DMSO, 0.1 M Et4NC104									

Ag+	ISE	non-aq	22°C	100%	U			1969CLa (102881)	2997
Medium: propene carbonate. Kso=-12.5									

Ag+	ISE	non-aq	20°C	100%	U			1968BBb (102882)	2998
Medium: MeNO2. Kso=-13.5									

\*\*\*\*\*

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	con	mixed	25°C	90%	C		K1=1.75	2003ISa (103098)	2999
Medium: 90% v/v DMSO/H2O. By potentiometry (Ag electrode), K1=1.75.									

Ag+	con	mixed	25°C	20%	C		K1=5.02	2003SIa (103099)	3000
Medium: 20% w/w propylene carbonate/ethylene carbonate. By potentiometry (Pt/Ag electrode), K1=5.01.									

Ag+	con	non-aq	25°C	100%	C	I	K1=4.20	1993JHa (103100)	3001
Medium: acetone. Data for DMF media.									

\*\*\*\*\*

C24H34N2O4 L CAS 91540-11-3 (8933)  
 7,16-Diphenyl-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	R4N.X	25°C	0.05M	U	H	K1=13.95	2002BSd (103207)	3002
Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M Et4NC104. By calorimetry: DH(K1)=-99.6 kJ mol-1, DS(K1)=-68.1 J K-1 mol-1.									

\*\*\*\*\*

C24H35N3O3 L CAS 173547-21-2 (7559)  
 1,15,19-Triaza-3,4:12,13-dibenzo-5,8,11-trioxacyclodocosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	C		K1=8.0	1998DLA (103250)	3003
Medium: 95% MeOH/H2O, 0.10 M Et4NC104.									

\*\*\*\*\*

C24H36N4S2 CAS 638211-87-7 (9252)  
 Eicosahydro-7,10:19,22-dieipithiodibenzo[1,4,11,14]tetraazacycloeicosine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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 Ag+ gl KCl 25°C 0.10M C K1=23.57 2003GMb (103276)3004  
 \*\*\*\*\*

C24H42S2 L CAS 160581-16-8 (5456)

1,3-Bis-[(octylthio)methyl]benzene;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	dis	KNO3	22°C	0.5M	U			1998FRa (103402)3005	
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B(Ag(NO3)L)(org)=2.54

B(Ag(NO3)L2)(org)=4.69

B(Ag3(NO3)3L3)(aq)=15.01

Organic medium: chloroform. B(Ag(NO3)L)(org): Ag(aq)+NO3(aq)+L(org)=

Ag(NO3)L(org). B(Ag3(NO3)3L3)(aq): Ag(aq)+NO3(aq)+L(org)=Ag3(NO3)3L3(aq).  
 \*\*\*\*\*

C24H44O8 L Dicy-24-crown-8 CAS 17455-23-1 (2401)

2,3,14,15-Dicyclohexyl-1,4,7,10,13,16,19,22-octaoxacyclotetracosane;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	con	mixed	25°C	90%	C		K1=1.80	2003ISa (103419)3006	
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Medium: 90% v/v DMSO/H2O. By potentiometry (Ag electrode), K1=1.78.  
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Ag+	con	mixed	25°C	20%	C		K1=4.49	2003SIa (103420)3007	
-----	-----	-------	------	-----	---	--	---------	----------------------	--

Medium: 20% w/w propylene carbonate/ethylene carbonate. By potentiometry  
 (Pt/Ag electrode), K1=4.48.  
 -----

Ag+	sol	non-aq	25°C	100%	C		K1=7.48	1999KCa (103421)3008	
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Medium: propylene carbonate  
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Ag+	sol	non-aq	25°C	100%	C		K1=4.40	1999KCa (103422)3009	
-----	-----	--------	------	------	---	--	---------	----------------------	--

Medium: methanol.  
 \*\*\*\*\*

C24H46N2O6 L (6567)

7,16-Bis(trans-2-hydroxycyclohexyl)-1,4,10,13-tetraoxa-7,16-diazocyclooctadecane;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	NaNO3	25°C	0.10M	C		K1=5.20	1991DCa (103450)3010	
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C24H48N4O2S4 L CAS 65424-03-5 (5951)

1,7,13,19-Tetraaza-4,16-dioxa-10,22,27,32-tetrathiatricyclo[17.5.5.5]tetracontane;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Ag+	gl	NaClO4	25°C	0.01M	U		K1=13.12	1985SLa (103471)3011	
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B(Ag2L)=23.02  
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C24H48N4O6 L CAS 56698-26-1 (1536)

4,10,16,22,27,32-Hexaoxa-1,7,13,19-tetraazatricyclo-tetratriacontane;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	R4N.X	25°C	0.10M	U			B(AgHL)=16.29 B(Ag2L)=13.54	1985NSb (103476)	3012
*****										
C24H48N7O5P3 L CAS 254441-66-2 (7955) 2,5,8,11,14-Pentaoxa-16,18,19-triaza-1,15,17-triphosphabicyclo[13.3.1]nonadeca-1,15,17-triene,17,										
*****										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	EMF	R4N.X	RT	0.10M	M			K1=3.26 B2= 5.56	2001BSb (103511)	3013
Method: Ag/Ag+ electrode. Medium: 0.10 M Et4NNO3.										
*****										
C25H22P2 L CAS 2071-20-7 (2294) Methylenebis(diphenylphosphine); (C6H5)2P.CH2.P(C6H5)2										
*****										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	ISE	non-aq	25°C	100%	C	H		B(Ag2L)=16.68 B(Ag2L2)=29.50 B(Ag2L3)=35.01	1993DDa (103644)	3014
Medium: propylenecarbonate, 0.1 M Et4NClO4. By calorimetry, DH(Ag2L)=-139 kJ mol-1, DS=-147; DH(Ag2L2)=-249, DS=-270; DH(Ag2L3)=-310, DS=-370.										
*****										
Ag+	ISE	non-aq	25°C	100%	U	H		B(Ag2L)=12.46 B(Ag2L2)=22.75 B(Ag2L3)=25.57	1990DDa (103645)	3015
Medium: DMSO, 0.1 M Et4NClO4. DH(Ag2L)=-107, DH(Ag2L2)=-188, DH(Ag2L3)=-261 kJ mol-1. DS(Ag2L)=-120, DS(Ag2L2)=-195, DS(Ag2L3)=-386 J K-1 mol-1										
*****										
C25H28N4O10 L CAS 752-13-6 (2940) Tetraacetylriboflavine;										
*****										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	nmr	non-aq	38°C	100%	U			K1=3.1 B2=4.21	1975LHa (103671)	3016
In acetone. B2 measured by ESR at 38 C, K1 by spectrophotometry at 25 C										
*****										
C25H30N4O2 L CAS 336181-87-4 (8558) Octahydro-12H-7,11-nitrilo-6H,18H-dibenzo[b,m][1,15,5,8,11]dioxatriazacyclodocosine ;										
*****										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	U			K1=>13	2002FGa (103696)	3017

Medium: 95% MeOH/H<sub>2</sub>O, 0.10 M Et<sub>4</sub>NClO<sub>4</sub>. For the 2,16-t-butyl derivative,  
K<sub>1</sub> > 13.

\*\*\*\*\*

C<sub>26</sub>H<sub>24</sub>P<sub>2</sub> L CAS 28240-60-0 (2280)

Ethylenebis(diphenylphosphine); (C<sub>6</sub>H<sub>5</sub>)<sub>2</sub>P.CH<sub>2</sub>.CH<sub>2</sub>.P(C<sub>6</sub>H<sub>5</sub>)<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag <sup>+</sup>	ISE	non-aq	25°C	100%	C	H		K <sub>1</sub> =13.75 B <sub>2</sub> =21.94 B(Ag <sub>2</sub> L)=18.01 B(Ag <sub>2</sub> L <sub>2</sub> )=30.63	1993DDa (103927)	3018

Medium: propylenecarbonate, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>. By cal, DH(K<sub>1</sub>)=-114 kJ mol<sup>-1</sup>  
DS=-121; DH(B<sub>2</sub>)=-173, DS=-160; DH(Ag<sub>2</sub>L)=-144, DS=-138; DH(Ag<sub>2</sub>L<sub>2</sub>)=-233.

Ag <sup>+</sup>	ISE	non-aq	25°C	100%	U	H		K <sub>1</sub> =7.73 B <sub>2</sub> =13.91 B(Ag <sub>2</sub> L)=11.91 B(Ag <sub>2</sub> L <sub>2</sub> )=18.28	1990DDa (103928)	3019
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Medium: DMSO, 0.1 M Et<sub>4</sub>NClO<sub>4</sub>. DH(K<sub>1</sub>)=-87, DH(B<sub>2</sub>)=-149, DH(Ag<sub>2</sub>L)=-110, DH(Ag<sub>2</sub>L<sub>2</sub>)=-186 kJ mol<sup>-1</sup>. DS(K<sub>1</sub>)=-144, DS(B<sub>2</sub>)=-233, DS(Ag<sub>2</sub>L)=-141, DS(Ag<sub>2</sub>L<sub>2</sub>)=-274

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C<sub>26</sub>H<sub>28</sub>N<sub>2</sub>O<sub>5</sub> L (2155)

1,13-Di-(8-quinolyl)-1,4,7,10,13-tetraoxatridecane; C<sub>9</sub>H<sub>6</sub>N.O.(CH<sub>2</sub>.CH<sub>2</sub>.O)<sub>4</sub>.C<sub>9</sub>H<sub>6</sub>N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag <sup>+</sup>	ISE	alc/w	25°C	100%	U	H		K <sub>1</sub> =7.02	1985BUb (103976)	3020

Medium: MeOH, 0.05M Et<sub>4</sub>NClO<sub>4</sub>. DH=-37.8 kJ mol<sup>-1</sup>

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C<sub>26</sub>H<sub>28</sub>N<sub>6</sub> L CAS 16858-02-9 (933)

N,N,N',N'-Tetrakis-(2-pyridylmethyl)-diaminoethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag <sup>+</sup>	gl	KN <sub>3</sub>	20°C	0.10M	C	H		K <sub>1</sub> =11.29 B(Ag <sub>2</sub> L)=17.40 B(AgHL)=15.45	1977AHc (103993)	3021

Calorimetry: DH<sub>1</sub>=-77.1 kJ mol<sup>-1</sup>, DS<sub>1</sub>=-46.4

\*\*\*\*\*

C<sub>26</sub>H<sub>30</sub>N<sub>2</sub>O<sub>2</sub> L CAS 268727-12-4 (8553)

6,7,8,9,10,11,17,18-Octahydro-6-(phenylmethyl)-5H-dibenzo[e,n][1,4,8,12]dioxadiazacyclopentadecin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag <sup>+</sup>	gl	alc/w	25°C	95%	C			K <sub>1</sub> =4.4	2002KAb (104028)	3022

Medium: 95% MeOH/H<sub>2</sub>O, 0.10 M Et<sub>4</sub>NClO<sub>4</sub>.

\*\*\*\*\*

C<sub>26</sub>H<sub>34</sub>N<sub>2</sub>O<sub>6</sub> L CAS 81897-78-1 (8932)

7,16-Dibenzoyl-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;



Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	R4N.X	25°C	0.05M	U	H	K1=2.57	2002BSd (104069)	3023
Method: Ag+ ion selective electrode. Medium: propylene carbonate, 0.05 M Et4NClO4. By calorimetry: DH(K1)=-13.0 kJ mol-1, DS(K1)=5.4 J K-1 mol-1.									
*****									
C26H36N2O4F2		L					CAS 205439-52-7	(8667)	
7,16-Bis[(2-fluorophenyl)methyl]-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	R4N.X	25°C	0.05M	C	H	K1=8.85	2002BSb (104118)	3024
Medium: 0.05 M Et4NClO4. DH(K1)=-62.9 kJ mol-1, DS(K1)=-41.6 J K-1 mol-1. Also data for 4-fluoro, 2-bromo and 4-bromo derivatives.									
*****									
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
Ag+	cal	non-aq	25°C	100%	U	IH		1988DSa (104120)	3025
Medium: MeCN. DH(K1)=-52.7 kJ mol-1. Also data in propylene carbonate, dimethylformamide and dimethylsulphoxide									
-----									
Ag+	ISE	non-aq	25°C	100%	U	M	K1=9.20	1987DSa (104121)	3026
Medium: N,N-dimethylformamide									
-----									
Ag+	ISE	alc/w	25°C	100%	C	I	K1=11.78	1985CKa (104122)	3027
Medium: MeOH. In acetonitrile K1=8.31; in propylenecarbonate K1=15.88; in DMF K1=9.67; in DMSO K1=6.77.									
*****									
C26H36O9		L					DiBz-27-crown-9 CAS 61260-08-0	(1775)	
Dibenzo-27-crown-9. 2,3:17,18-Dibenzo-1,4,7,10,13,16,19,22,25-nonaoxacycloheptacosan-2,15-diene;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	cal	non-aq	25°C	100%	C	H	K1=2.47	1986ICa (104166)	3028
Medium: MeOH. DH(K1)=-14.0 kJ mol-1, DS(K1)=0.3 J K-1 mol-1.									
*****									
C26H38N2O4		L					CAS 80757-23-9	(2450)	
N,N'-Bis(benzyl)-1,10-diaza-4,7,13,16-tetraoxacyclooctadecane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	mixed	25°C	90%	C		K1=4.45	2003ISa (104179)	3029
Medium: 90% v/v DMSO/H2O. Method: Ag electrode.									
-----									
Ag+	con	non-aq	25°C	100%	C	T H	K1=6.38	2000MTc (104180)	3030

Medium: acetonitrile. Data for 20-35 C. DH(K1)=-100.0 kJ mol<sup>-1</sup>, DS(K1)=214.1 J K<sup>-1</sup> mol<sup>-1</sup>.

-----  
Ag+ ix none 25°C 0.0 U K1=7.8 1988IBa (104181)3031  
Ligand covalently attached to silica gel

\*\*\*\*\*

C26H38N4O6Cl2 H2L CAS 227796-03-4 (8914)  
7,16-Bis(3-amino-5-chloro-2-hydroxybenzyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

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

-----  
Ag+ cal alc/w 25°C 100% C H K(Ag+H2L)=>5.5 1999SBf (104197)3032

Medium: MeOH. DH(K)=-47.9 kJ mol<sup>-1</sup>, DS(K)=>-55.4 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*

C27H26P2 L CAS 6372-42-4 (2295)  
Propane-1,3-diylbis(diphenylphosphine); (C6H5)2P.CH2.CH2.CH2.P(C6H5)2

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

-----  
Ag+ ISE non-aq 25°C 100% C H K1=14.1 B2=21.83 1993DDa (104410)3033  
B(Ag2L)=18.15  
B(Ag2L2)=32.63

Medium: propylenecarbonate, 0.1 M Et4NClO4. By cal, DH(K1)=-120 kJ mol<sup>-1</sup>  
DS=-134; DH(B2)=-198, DS=-246; DH(Ag2L)=-147, DS=-146; DH(Ag2L2)=-253.

-----  
Ag+ ISE non-aq 25°C 100% U H K1=8.65 B2=14.39 1990DDa (104411)3034  
B(Ag2L)=12.37  
B(Ag2L2)=20.13

Medium: DMSO, 0.1 M Et4NClO4. DH(K1)=-95, DH(B2)=-162, DH(Ag2L)=-115, DH(Ag2L2)=-195 kJ mol<sup>-1</sup>. DS(K1)=-153, DS(B2)=-268, DS(Ag2L)=-149, DS(Ag2L2)=-269

\*\*\*\*\*

C27H32N05S3 CAS 197148-44-0 (7331)  
7,13-Dithia-1,4,10-trioxa-2,3-benzocyclopentadeca-15-ene-3'-vinyl-3-carboxypropylbenzothiazolium;HL+

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

-----  
Ag+ sp non-aq 22°C 100% C K1=4.4 1997GFa (104520)3035  
Medium: MeCN. Data also for several related ligands

\*\*\*\*\*

C27H33N3O2 L CAS 540522-39-2 (9154)  
1,12,15-Triaza-3,4:9,10-dibenzo-5,8-dioxacycloheptadecane;

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

-----  
Ag+ gl alc/w 25°C 95% U K1=9.2 B(AgHL)=14.3 2004FRa (104530)3036

Medium: 95% methanol/water, 0.1 M Et4NClO4.

\*\*\*\*\*

C28H36N2O7S2 HL CAS 150196-54-6 (7735)  
3-(3-Sulfopropyl)-2-[4-[N-(1,4,7,10,13-pentaoxa-16-azacyclooctadeca)]]styryl-benzot  
hiazolium;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ sp none 18°C 0.0 C K1=0.74 1997LHa (104779)3037

\*\*\*\*\*

C28H40O10 L DiBz-30-crown10 CAS 104946-67-0 (1776)  
2,3:17,18-Dibenzo-1,4,7,10,13,16,19,22,25,28-decaoxacyclotriaconta-2,17-diene;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ con non-aq 25°C 100% C I K1=3.53 1993JHa (104863)3038  
Medium: acetone. Data for DMF media.

-----  
Ag+ con non-aq 25°C 100% U I K1=5.27 1991ASb (104864)3039  
Medium: 1,2-dichlorethane. In nitromethane: K1=4.79; in MeCN: K=4.22;  
in acetone: K=3.88

-----  
Ag+ sp alc/w 25°C 100% U I K1=4.31 1987GKb (104865)3040  
Medium: MeOH. In DMF, K1=3.42

\*\*\*\*\*

C28H42N2O4 L CAS 442126-05-8 (8668)  
7,16-Bis[(2-methylphenyl)methyl]-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE R4N.X 25°C 0.05M C H K1=8.51 2002BSb (104924)3041  
Medium: 0.05 M Et4NClO4. DH(K1)=-62.9 kJ mol<sup>-1</sup>, DS(K1)=-41.6 J K<sup>-1</sup> mol<sup>-1</sup>.  
Also data for 4-methylphenyl derivative.

\*\*\*\*\*

C28H52N6O5 HL CAS 811431-80-8 (9159)  
2,6-Bis(1,4-dioxa-7,10,13-triazacyclopentadec-10-ylmethyl)-phenol;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl alc/w 25°C 95% U K1=> 14 2004PFa (105003)3042  
Medium: 95 % methanol/H2O, 0.1 M Et4NClO4.

\*\*\*\*\*

C28H52O10 L CAS 17455-26-4 (6071)  
2,3:17,18-Dicyclohexyl-1,4,7,10,13,16,19,22,25,28-decaoxacyclotriacontane;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ sol non-aq 25°C 100% C K1=6.00 1999KCa (105020)3043  
Medium: propylene carbonate.

\*\*\*\*\*

C29H37N3O4S2 L CAS 173547-29-0 (7564)

1,8,15-Triaza-3,4:12,13-dibenzo-8-tosyl-5,11-dioxa-18-thiacycloeicosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	C		K1=8.3 B(AgHL)=13.7	1998DLA (105112)	3044

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

\*\*\*\*\*  
C29H37N3O5S L CAS 173547-28-9 (7563)  
1,8,15-Triaza-3,4:12,13-dibenzo-8-tosyl-5,11,18-trioxacycloeicosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	C		K1=6.6 B(AgHL)=13.4	1998DLA (105120)	3045

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

\*\*\*\*\*  
C29H38N4O4S L CAS 168279-83-2 (7561)  
1,8,15,18-Tetraaza-3,4:12,13-dibenzo-8-tosyl-5,11-dioxacycloeicosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	C		K1=8.5 B(AgHL)=15.2	1998DLA (105129)	3046

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

\*\*\*\*\*  
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
Ag+	EMF	non-aq	25°C	100%	U	H	K1=7.2 B2=13.30	1996AAb (105246)	3047

Medium: MeCN

tacyclo[12.12.12.1(6,9).1(19,22).1(31,34)]hentetetetraconta-4,6,8....dodecaene  
\*\*\*\*\*

C30H38N2O8 L CAS 137571-97-2 (6821)  
Anthraquinone[2.2]cryptand;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	non-aq	25°C	100%	U		K1=5.03	1992CSc (105276)	3048

Ag/Ag+ electrode. Medium: MeCN, 0.05 M Bu4NClO4

\*\*\*\*\*  
C30H40N2O4 L Anthracene-22 (3329)  
6,9,17,20-Tetraoxa-3,12-diaza[14:8](9,10)anthracenophane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	alc/w	25°C	100%	U		K1=9.51	1989FDa (105281)	3049

Medium: MeOH, 0.1 M Bu4NC104

\*\*\*\*\*

C30H40N4O4S L CAS 173547-27-8 (7562)  
1,8,15,19-Tetraaza-3,4:12,13-dibenzo-8-tosyl-5,11-dioxacycloheneicosan-3,12-diene;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl alc/w 25°C 95% C K1=8.8 1998DLA (105287)3050  
Medium: 95% MeOH/H2O, 0.10 M Et4NC104.

\*\*\*\*\*

C32H34N2O2S2 L (7281)  
3,4:9,10:14,15:20,21-Tetrabenzo-1,12-diaza-5,8-dioxa-16,19-dithiacyclodocosan-3,9,14,20-tetraene;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl alc/w 25°C 95% C K1=9.5 1996AKb (105621)3051  
Medium: 95% MeOH/H2O, 0.10 M Et4NC104

\*\*\*\*\*

C32H34N2O4 L (7282)  
3,4:9,10:14,15:20,21-Tetrabenzo-1,12-diaza-5,8,16,19-tetraoxacyclododecan-3,9,14,20-tetraene;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl alc/w 25°C 95% C K1=8.4 1996AKb (105624)3052  
Medium: 95% MeOH/H2O, 0.10 M Et4NC104

\*\*\*\*\*

C32H34N2S4 L (7283)  
3,4:9,10:14,15:20,21-Tetrabenzo-1,12-diaza-5,8,16,19-tetrathiacyclododecan-3,9,14,20-tetraene;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ gl alc/w 25°C 95% C K1=12.5 1996AKb (105628)3053  
Medium: 95% MeOH/H2O, 0.10 M Et4NC104

\*\*\*\*\*

C32H43N2O7S HL CAS 189057-31-6 (7756)  
3-(4-Carboxybutyl)-2-[4-[N-(1,4,7,10,13-pentaoxa-16-azacyclooctadeca)]]styryl-benzo thiazolium;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ sp none 18°C 0.0 C K1=0.80 1997LHa (105752)3054  
\*\*\*\*\*

C32H44N2O4 L (6164)  
7,10,17,20-Tetraoxa-4,13-diaza[16:8](9,10)anthracenophane;

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

Ag+ sp alc/w 25°C 100% U K1=9.36 1989FDa (105762)3055  
Medium: MeOH, 0.1 M Bu4NC104

\*\*\*\*\*

C32H48N2O3 L CAS 170801-55-5 (8952)

1,5-Bis[2,2'-azo-4,4'-(1,1,3,3-tetramethylbutyl)phenoxy]-3-oxapentane;

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

Ag+ sp alc/w RT 100% C K1=2.9 2000GDa (105793)3056

Medium: MeOH.

\*\*\*\*\*

C32H48N2O4 L CAS 170801-51-1 (8953)

6,7,9,10-Tetrahydro-2,14-bis(1,1,3,3-tetramethylbutyl)dibenzotrioxadiazacyclotridecine 16-oxide;

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

Ag+ sp alc/w RT 100% C K1=2.0 2000GDa (105797)3057

Medium: MeOH.

\*\*\*\*\*

C32H64N4O10 L CAS 42133-16-4 (8579)

4,10,13,19,25,28,33,36,41,44-Decaoxa-1,7,16,22-tetraazatricyclo[20.8.8.87,16]hexate tracontane;

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

Ag+ gl alc/w 25°C 90% M K1=ca. 12 1977LSc (105846)3058

Medium: 90% (w/w) MeOH/H2O, 0.1 M Et4NBr.

\*\*\*\*\*

C32H66N2O4 L 22DD Kryptofix CAS 79495-97-9 (6655)

1,10-Didecyl-1,10-diaza-4,7,13,16-tetraoxacyclooctadecane;

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

Ag+ ISE alc/w 25°C 100% U H K1=10.28 1985BUB (105858)3059

Medium: MeOH, 0.05M Et4NC104. DH=-61.1 kJ mol-1

\*\*\*\*\*

C33H36N2O2 L CAS 225918-78-5 (8554)

6,7,8,9,10,11,17,18-Octahydro-6,10-bis(phenylmethyl)-5H-dibenzo[1,4,8,12]dioxadiazacyclopentadeci

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

Ag+ gl alc/w 25°C 95% C K1=4.0 2002KAb (105883)3060

Medium: 95% MeOH/H2O, 0.10 M Et4NC104.

\*\*\*\*\*

C33H38N2O6P2 H2L CAS 361523-72-0 (7842)

1,12-Diaza-3,4:9,10-dibenzo-5,8-dioxacyclopentadecan-1,2-bis(methylenephosphonic acid);

-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	C		K1=6.8	2001FLa (105903)	3061
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.									
*****									
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]tetratettraconta pentadecane;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	U	H	K1=6.0	1996AAb (105911)	3062
Medium: CH3CN									
.13.1(6,10).1(20,24).1(33,37)]tetratetraconta-4-6-8-10(44),11...pentadecaene									
*****									
C34H33P3		L					(6539)		
Bis(2-(diphenylphosphino)ethyl)phenylphosphane; C6H5P(CH2CH2P(C6H5)2)2									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	ISE	non-aq	25°C	100%	U	H	K1=11.69 B2=16.69 B(Ag2L)=15.45 B(Ag2L3)=32.01	1990DDa (106004)	3063
Medium: DMSO,0.1M Et4NClO4. DH(K1)=-109, DH(B2)=-159,DH(Ag2L)=-135,DH(Ag2L3)=-291 kJ mol-1. DS(K1)=-142, DS(B2)=-214, DS(Ag2L)=-157, DS(Ag2L3)=-364									
*****									
C34H38N2O3		L					CAS 268727-13-5 (8555)		
Decahydro-17,20-bis(phenylmethyl)dibenzo[h,p][1,4,7,11,14]trioxadiazacycloheptadecine;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	C		K1=8.9	2002KAb (106022)	3064
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.									
*****									
C34H42N2O4		L					CAS 205743-21-1 (8942)		
N,N'-Bis(1-naphthylmethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	con	alc/w	25°C	100%	M	H	K1=8.65	2000BSe (106054)	3065
Medium: MeOH. By calorimety: DH(K1)=-51.3 kJ mol-1, DS(K1)=-7.4 J K-1 mol-1.									
*****									
C34H54O8		H2L	Lasalocid				CAS 25999-20-6 (2335)		
Lasalocid acid;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	nmr	non-aq	20°C	100%	C			1998MLa (106109)	3066

$$K(\text{Ag}+\text{HL})=2.0$$

Medium: CD3OD. Method: 13C nmr.

\*\*\*\*\*

C35H40N2O3 L CAS 268727-14-6 (8556)  
Decahydro-17,21-bis(phenylmethyl)-16H-dibenzo[h,q][1,4,7,11,15]trioxadiazacyclooctadecine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	C		K1=5.1	2002KAb (106192)	3067

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

\*\*\*\*\*

C36H42N8 L Xylyl-cryptand CAS 172881-87-7 (7456)  
1,4,12,15,18,26,31,39-Octaazapentacyclo[13.13.13.1.1.1]tetraatetracontadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	non-aq	25°C	100%	U		K1=4.8 B(Ag2L)=8.77	1996AAAd (106313)	3068

Medium: CH3CN

\*\*\*\*\*

C36H44N4O2 L CAS 446875-57-6 (8559)  
3,17-Bis(1,1-dimethylethyl)-tetrahydro-dinitrilodibenzodioxadiazacyclotetracosine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	U		K1=>13	2002FGa (106325)	3069

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

\*\*\*\*\*

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
Ag+	con	non-aq	25°C	100%	C	H	K1=1.95	1997PBb (106478)	3070

Medium: acetonitrile. Additional method: potentiometry with ISE.  
By calorimetry, DH(K1)=-14 kJ mol<sup>-1</sup>, DS(K1)=-10 J K<sup>-1</sup> mol<sup>-1</sup>.

Ag+	ISE	alc/w	25°C	90%	U	I	K1=7.42	1988ACb (106479)	3071
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Medium: 90% v/v MeOH/H2O. 80% MeOH/H2O, K1=6.71, 70%, K1=6.43, 60%, K1=5.92

Ag+	ISE	alc/w	25°C	100%	M		K1=7.86	1984CTa (106480)	3072
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Ag+	ISE	non-aq	25°C	100%	M		K1=10.05	1984CTa (106481)	3073
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Medium: N,N-dimethylformamide. In DMSO K1=5.81

Ag+	ISE	alc/w	25°C	100%	U		K1=8.94	1984CTb (106482)	3074
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Medium: EtOH

Ag+	gl	non-aq	25°C	100%	U	I	K1=5.38	1983RSb (106483)	3075
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Medium: DMSO. In MeOH: K1=8.1; in PC: 15.0; in DMF: 9.94; in MeCN: 8.6

-----  
Ag+ gl alc/w 25°C 100% U K1=8.2 1978HPa (106484)3076

\*\*\*\*\*

C39H42N4O2 HL CAS 688348-35-8 (9160)

Octahydro-19,22-bis(phenylmethyl)-12H-7,11-nitrilo-6H,18H-dibenzo[1,15,5,8,11]dioxatriazacyclo;

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

-----  
Ag+ gl alc/w 25°C 95% U K1=10.2 2004PFa (106709)3077

Medium: 95 % methanol/H2O, 0.1 M Et4NClO4.

\*\*\*\*\*

C40H52N4O4 L CAS 205066-94-0 (8760)

Tetraphenyl-1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraethanol;

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

-----  
Ag+ ISE non-aq 25°C 100% C K1=8.14 1998WLc (106820)3078

Medium: DMF, 0.05 M Et4NClO4.

Ligand is (all-R)-(all-α)-Tetraphenyl-

\*\*\*\*\*

C41H45N3O2 L CAS 129508-47-0 (8557)

Decahydro-6,9,12-tris(phenylmethyl)-5H-dibenzo[e,p][1,4,8,11,14]dioxatriazacycloheptadecine;

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

-----  
Ag+ gl alc/w 25°C 95% C K1=9.3 2002KAb (106878)3079

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

\*\*\*\*\*

C42H42P4 L (6540)

Tris(2-(diphenylphosphino)ethyl)phosphane; P(CH2CH2P(C6H5)2)3

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

-----  
Ag+ ISE non-aq 25°C 100% U H K1=13.29 B2=16.25 1990DDa (106942)3080

B(Ag2L)=17.88

Medium: DMSO, 0.1M Et4NClO4. DH(K1)=-140, DH(B2)=-173, DH(Ag2L)=-166 kJ mol<sup>-1</sup>

DS(K1)=-215, DS(B2)=-268, DS(Ag2L)=-215 J K<sup>-1</sup> mol<sup>-1</sup>

\*\*\*\*\*

C42H50O7 L CAS 177723-38-5 (8793)

1,3-Diisopropoxycalix[4]arene-crown-5, 1,3-alternate;

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

-----  
Ag+ sp non-aq 25°C 100% C K1=5.4 2000PBa (106947)3081

Medium: MeOH.

\*\*\*\*\*

C42H68N2O4 L CAS 188593-77-3 (8954)

2,17-Didodecyl-6,7,9,10,12,13-hexahydro-dibenzo[b,f][1,8,11,14,4,5]tetraoxadiazacyclohexadecine

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	non-aq	RT	100%	C	I	K1=2.7	2000GDa (106971)	3082

Medium: acetonitrile. In MeOH, K1=3.65.

\*\*\*\*\*  
 C44H38N8 H2L CAS 48242-70-2 (6629)  
 5,10,15,20-Tetrakis(1-methylpyridinium-4-yl)porphine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	NaNO3	25°C	0.10M	U			19840Ba (107100)	3083

K(2Ag+H2L=Ag2L+2H)=-5.8

\*\*\*\*\*  
 C44H54O8 L CAS 162989-76-6 (8794)  
 1,3-Diisopropoxycalix[4]arene-crown-6, 1,3-alternate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	sp	non-aq	25°C	100%	C		K1=4.7	2000PBa (107168)	3084

Medium: MeOH.

\*\*\*\*\*  
 C44H54O8 L CAS 161282-98-0 (8679)  
 25,27-Bis(1-propyloxy)calix[4]arene-crown-6, 1,3-alternate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C		K1=4.6	1995CUa (107173)	3085

Medium: methanol, 0.01 M Et4NClO4. Method: Ag electrode.

\*\*\*\*\*  
 C44H54O8 L CAS 161282-96-8 (8678)  
 25,27-Bis(2-propyloxy)calix[4]arene-crown-6, 1,3-alternate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	EMF	non-aq	25°C	100%	C	H	K1=4.52	1995CUa (107179)	3086

Medium: methanol, 0.01 M Et4NClO4. Method: Ag electrode.

By calorimetry, DH(K1)=-13.5 kJ mol<sup>-1</sup>, DS(K1)=41 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*  
 C46H48N4O2 HL CAS 688348-38-1 (9161)  
 Octahydro-19,22,25-tris(phenylmethyl)-12H-7,11-nitrilo-6H,18H-dibenzo[1,15,5,8,11]dioxatriazac;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag+	gl	alc/w	25°C	95%	U		K1=> 8	2004PFa (107265)	3087

Medium: 95 % methanol/H2O, 0.1 M Et4NClO4.

\*\*\*\*\*

C48H96N2O4 L CAS 72469-41-1 (5351)  
N,N-Dioctadecyl-N',N'-dipropyl-3,6-dioxaoctanediamide;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ ISE oth/un 21°C 100% C K1=6.5 1999CPa (107442)3088  
Medium: PVC/DOS ion selective electrode membrane (DOS: bis(2-ethylhexyl)-sebacate). Data for structurally related ionophores.

\*\*\*\*\*  
C56H64O10 L CAS 405108-40-9 (8249)  
1,2-Di-O-[2-(2-benzyloxyethoxy)ethyl]-3,4,5,6-tetra-O-benzyl-myo-inositol;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ dis non-aq 25°C 100% C 2001SSb (107584)3089  
K(Ag.pic+L(org)=AgL.pic)=2.54

Distribution of picrate salt into CHCl3/HL.  
K: Ag.pic(aq)+L(org)=AgL.pic(org). Data for series of myo-inositol ligands  
\*\*\*\*\*

C60H80O12 L CAS 97600-39-0 (6158)  
Tetraethyl-4-t-butylcalix[4]arenetetraethanoate;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ con alc/w 25°C 100% C H K1=4.25 2002ASc (107647)3090  
Medium: MeOH. DH(K1)=-35.66 kJ mol<sup>-1</sup>, DS(K1)=-37.40 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*  
C62H84O14 L CAS 135581-11-2 (8630)  
9,23-Dioxpentacyclo[23.3.1.13,7.111.15.117.21]dotriacontane, ethanoic acid derivative;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ sp non-aq 25°C 100% C K1=<1 1991ACc (107688)3091  
Medium: acetonitrile, 0.01 M Et4NClO4.

\*\*\*\*\*  
C63H58N8O4S4 H4L (6475)  
5,10,15,20-Tetrakis(o-(tetrahydro-2-thenoylamino)phenyl)porphin;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Ag+ sp non-aq 25°C 100% U 1992DKa (107718)3092  
K(ZnL+2Ag)=7.32

Medium: CH3CN  
\*\*\*\*\*

C64H78O6S2 H2L CAS 506444-38-8 (8850)  
25,27-O-[Ethylenedithiodimethylenedi-o-phenylenedioxydiethylene]-p-tert-butylcalix[4]arene;

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

-----  
Ag+ con non-aq 25°C 100% C K1=3.39 2002ASa (107756)3093  
Medium: acetonitrile.

\*\*\*\*\*

C66H82O6S2 H2L CAS 506444-39-9 (8851)  
25,27-O-[Thiodiethylenedithiodimethylenedi-o-phenylenedioxydiethylene]-p-t-butylcalix[4]arene;

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

Ag+ con non-aq 25°C 100% C K1=4.50 2002ASa (107782)3094  
Medium: acetonitrile.

\*\*\*\*\*

C68H76N4O4 L CAS 123207-92-1 (7812)  
5,11,17,23-Tetra-t-butyl-[25,26,27,28-tetrakis(2-pyridylmethyl)oxy]calix(4)arene;

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

Ag+ ISE non-aq 25°C 100% C H K1=5.18 1998DPa (107783)3095  
Medium: MeCN, 0.05 M Bu4NClO4. By calorimetry, DH(K1)=-19.04 kJ mol<sup>-1</sup>,  
DS(K1)=33.60 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*

C68H76N4O4 L CAS 178172-53-7 (7803)  
5,11,17,23-Tetra-t-butyl-[25,26,27,28-tetrakis(4-pyridylmethyl)oxy]calix[4]arene;

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

Ag+ ISE non-aq 25°C 100% C H K1=2.63 1998DPa (107789)3096  
Medium: MeCN, 0.05 M Bu4NClO4. By calorimetry, DH(K1)=-25.63 kJ mol<sup>-1</sup>,  
DS(K1)=-35.6 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*

C68H108N4O4 L CAS 179458-65-2 (7813)  
Tetra(N,N-dimethylaminoethoxy)-4-t-butylcalix[4]arene;

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

Ag+ EMF non-aq 25°C 100% C I K1=4.62 1999DGb (107822)3097  
Method: Ag/Ag+ electrode. Medium: MeOH, 0.05 M Bu4NClO4.  
Also values in EtOH (K1=4.10), MeCN (3.07), DMF (3.77), PhCN (3.58).

\*\*\*\*\*

C69H102N4O9 L CAS 116352-85-3 (9286)  
para-t-Butyldihomooxacalix[4]arene tetra(diethyl)amide;

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

Ag+ EMF alc/w 25°C 100% C K1=7.0 2004MFa (107826)3098  
Medium: MeOH, 0.01 M Et4NCl. Method: Ag ion electrode.

\*\*\*\*\*

C75H100O15 L CAS 152495-34-6 (7033)  
Penta-tert-butylpentakis(ethoxycarbonylmethoxy)calix[5]arene;

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        sp alc/w 25°C 100% U      K1=4.0      1993BMa (107857)3099
Medium: MeOH, 0.1 M Et4NCl.
*****
C85H80015          L      CAS 269057-77-4 (3302)
5,11,17,23,29-Pentabenzylcalix[5]arene-31,32,33,34,35-pentaethanoate pentamethyl
ester;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        sp non-aq 25°C 100% C I      K1=3.87      2000AAa (107909)3100
Medium: methanol, 0.01 M Et4NCl. Also data for acetonitrile, 0.01 M Et4NCl
and for the pentaethyl ester.
*****
C85H120015          L      CAS 152495-35-7 (7034)
Penta-tert-butylpentakis(tert-butoxycarbonylmethoxy)calix[5]arene;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        EMF alc/w 25°C 100% U      K1=4.3      1993BMa (107914)3101
Medium: MeOH, 0.1 M Et4NClO4.
*****
C88H96N8012S4          L      CAS 639027-46-6 (9277)
Tetra(benzoylthiocarbamido)cavitand;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE NaCl   rt 0.01M C      K1=7.2      2003MGa (107925)3102
Method: segmented sandwich membrane ISE.
*****
C88H96N8016          L      CAS 639030-70-9 (9278)
Tetra(benzoylcarbamido)cavitand;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        ISE NaCl   rt 0.01M C      K1=3.2      2003MGa (107932)3103
Method: segmented sandwich membrane ISE.
*****
C90H130015          L      CAS 269057-78-5 (3334)
5,11,17,23,29-Penta-tert-octylcalix[5]arene-31,32,33,34,35-pentaethanoate
pentamethyl ester;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Ag+        sp non-aq 25°C 100% C I      K1=3.82      2000AAa (107948)3104
Medium: methanol, 0.01 M Et4NCl. By potentiometry, K1=3.97.
Also data for acetonitrile, 0.01 M Et4NClO4 and for the pentaethyl ester.
*****

```

C96H144O24 L CAS 169888-22-6 (7534)  
C-Undecylcalix[4]resorcinarene octa-alpha-(methyl ethanoate);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag+	dis	non-aq	25°C	100%	U				1995FDa (107959)	3105
-----	-----	--------	------	------	---	--	--	--	------------------	------

K=3.91

Medium: CDCl3. Method: by H2O/CDCl3 extraction of picrate salt.

K: MA(org)+L(org)=MLA(org) where A=picrate.

\*\*\*\*\*

C112H120N4O16P4 L CAS 195455-62-0 (9276)

1,21,23,25-Tetrapentyl-7,11,15,28-tetra[(diphenylphosphinyl)acetamidomethylene]  
cavitand;

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

Ag+	ISE	NaCl	rt	0.01M	C			K1=6.4	2003MGa (107986)	3106
-----	-----	------	----	-------	---	--	--	--------	------------------	------

Method: segmented sandwich membrane ISE.

Phosphonic acid diethyl ester derivative: K1=8.9

\*\*\*\*\*

C120H192O24 L CAS 175349-58-3 (7495)

C-Undecylcalix[4]resorcinarene octa-alpha-(tert-butyl ethanoate);

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

Ag+	dis	non-aq	25°C	100%	U				1995FDa (108002)	3107
-----	-----	--------	------	------	---	--	--	--	------------------	------

K=4.60

Medium: CDCl3. Method: by H2O/CDCl3 extraction of picrate salt.

K: MA(org)+L(org)=MLA(org) where A=picrate.

\*\*\*\*\*

C120H200N8O16 L CAS 169888-21-5 (7490)

C-Undecylcalix[4]resorcinarene octa-alpha-(N,N-diethyl acetamide);

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

Ag+	dis	non-aq	25°C	100%	U				1995FDa (108013)	3108
-----	-----	--------	------	------	---	--	--	--	------------------	------

K=7.63

Medium: CDCl3. Method: by H2O/CDCl3 extraction of picrate salt.

K: MA(org)+L(org)=MLA(org) where A=picrate.

\*\*\*\*\*

Polymer DNA (4185)

Deoxyribonucleic acid;

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

Ag+	ISE	NaCl	04	23°C	0.10M	U			1962YDa (108131)	3109
-----	-----	------	----	------	-------	---	--	--	------------------	------

K=6.33 to 6.62(purine binding)

K=4.8 to 5.4(other binding)

See reference for definitions

\*\*\*\*\*

Polymer Gelatin Gelatin (4187)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	vlt	KN03	25°C	0.20M	U			K(carboxyl)=2.17 K(imidazole)=5.02 K(a-amino)=7.07 K(e-amino)=5.60	1966LMc (108192)	3110

See reference for definitions and more details

\*\*\*\*\*

Polymer Poly-N-vinylimidazole; (4202)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag+	gl	KN03	25°C	1.0M	U			B2eff=8.00	1960GGa (108291)	3111

Ag+ bound to two imidazole groups. See reference for definitions

\*\*\*\*\*

e- Electron (442)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Ag++	EMF	KCl	135°C	100%	U			K(Ag + Ag(s)=2Ag(I)) > 12.5	1969APa (291)	3112

Medium: (Na,K,Al)Cl

Ag++	sp	NaCl04	25°C	3.00M	U			K(Ag + e=Ag(I))=34.15(2.02V)	1969CMc (292)	3113
------	----	--------	------	-------	---	--	--	------------------------------	---------------	------

Medium: HCl04. Method: also emf and kinetic methods

Ag++	sp	NaCl04	25°C	3.00M	U	H		K(Ag + Co++ = Ag+ + Co+++)=1.5	1969CMc (293)	3114
------	----	--------	------	-------	---	---	--	--------------------------------	---------------	------

Medium: HCl04. DS=29 J K-1 mol-1. Method:also emf and kinetic methods

Ag++	kin	KN03	26°C	6.18M	U	M		K=6.58	1966ZEa (294)	3115
------	-----	------	------	-------	---	---	--	--------	---------------	------

Medium: 6.18 M HNO3. K: Ce+++ + Ag++ = Ce++++ + Ag+. By potentials: K=5.37

Ag++	kin	NaCl04	25°C	3.50M	U	M		K=0.12	1963KPa (295)	3116
------	-----	--------	------	-------	---	---	--	--------	---------------	------

Medium HCl04. K: Co++ + Ag++ = Co+++ + Ag+

Ag++	EMF	none	25°C	0.0	U			K=28.92(1711 mV)	1963STe (296)	3117
------	-----	------	------	-----	---	--	--	------------------	---------------	------

K: 0.5Ag2O3(s)+H+e=AgO(s)+0.5H2O. K(0.5Ag2O+3H+2e=Ag+1.5H2O)=59.40(1757 mV)

-----

$$\text{K: } \text{AgO}(\text{s}) + 0.5\text{H}_2\text{O} + \text{e} = 0.5\text{Ag}_2\text{O}(\text{s}) + \text{OH}^-$$

K:  $\text{AgO(s)} + 0.5\text{H}_2\text{O} + \text{e} = 0.5\text{Ag}_2\text{O(s)} + \text{OH}^-$ .  $K(\text{AgO(s)} + \text{Ag(s)} = \text{Ag}_2\text{O(s)}) = 4.43(262 \text{ mV})$ ;  
 $\Delta H = -19.0 \text{ kJ mol}^{-1}$ ,  $\Delta S = 21.2 \text{ J K}^{-1} \text{ mol}^{-1}$

Medium: HClO4. At 0.2 C: K=36.56(1982 mV). Alternatively: 25 C: K=32.62(1929 mV), 0.2 C: K=35.34(1916 mV)

$$K: 0.5\text{Ag}_2\text{O}(s) + \text{H} + e = \text{AgO}(s) + 0.5\text{H}_2\text{O}. \quad K(\text{AgO}(s) + \text{H} + e = 0.5\text{Ag}_2\text{O}(s) + 0.5\text{H}_2\text{O}) = 23.7(1400)$$

\*\*\*\*\*

N03- Nitrate;	HL	Nitrate	CAS 7697-37-2 (288)
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Ag++ sp NaClO4 23°C 5.63M U K1=-0.03 1970HKb (9566)3122  
K1=-0.14 uncorrected for hydrolysis

\*\*\*\*\*

OH- HL Hydroxide (57)  
Hydroxide;

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

Ag++      kin NaClO4 22°C 5.95M U      1972HKb (10884)3123  
\*K1=-0.5

Medium: HCl04

Ag++ sp NaCl04 22°C 5.63M U 1970HKc (10885)3124  
\*K1=-0.2

Ag++ sol oth/un 25°C var U 1959DWa (10886)3125  
Ks2=-5.57  
Ks3=-3.77

medium:KOH at various concentrations,Ks2 and Ks3 obtained by extrapolation to I=0; Ks2:  $K(\text{AgO(s)}+\text{H}_2\text{O}=\text{Ag}(\text{OH})_2)$ , Ks3:  $K(\text{AgO(s)}+\text{H}_2\text{O}+\text{OH}=\text{Ag}(\text{OH})_3)$

\*\*\*\*\*

C4H7NO4                      H2L      Aspartic acid      CAS 56-84-8      (21)  
Aminobutanedioic acid; H2N.CH(CH2.COOH).COOH

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

Ag++      gl    KNO3    25°C 0.10M M      K1=3.94    B2= 6.03    1981GVa (31810)3126



\*\*\*\*\*

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  
-----

Ag++            sp   oth/un 10°C   1.2M C                                      1989KPa (32529)3127  
B2eff=8.1

Metal ion is Ag(III). Reaction of Ag(OH)4- with HL in 1.2 M NaOH.

\*\*\*\*\*

C5H9N04                      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  
-----

Ag++            gl   KNO3    25°C 0.10M M                      K1=3.80    B2= 5.87    1981GVa (39058)3128

\*\*\*\*\*

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  
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Ag++            kin NaClO4 25°C 1.00M U                                      1993DHb (45623)3129

K(AgH2A+H2L)=0.61

\*K(Ag(H2A)H2L)=-0.39

K(Ag(H2A)H2L+H)=0.46

Metal is Ag(III). H2A=ethylenebis(biguanide).

\*\*\*\*\*

C6H10N2O4                      H2L                                      (3104)  
Piperazine-2,6-dicarboxylic acid;

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

Ag++            gl   KCl      22°C 0.10M U                      K1=4.1                      1964PCa (47736)3130

\*\*\*\*\*

C6H16N10                      L                                      (4261)  
Ethylenebisbiguanide; (H2N.C(:NH).NH.C(:NH).NH.CH2.)2

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Metal            Mtd Medium Temp Conc Cal Flags Lg K values                      Reference ExptNo  
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Ag++            gl   oth/un 31°C 0.05M U                      K1=52?                      1950SGa (51768)3131

\*\*\*\*\*

C7H6N4S                      HL                                      CAS 86-93-1    (2731)  
1-Phenyl-1H-tetrazole-5-thiol; C6H5.CN4.SH

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

Ag++            ISE none    25°C   0.0   U      M                                      1982PPa (53541)3132

Kso(AgL)=-15.26

Kso(AgHL2)=-18.4

Kso(Ag2IL)=-31.4

\*\*\*\*\*

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
Ag++	vlt	KNO3	25°C	0.10M	U		B2=26.3	1982IGa (69527)	3133

\*\*\*\*\*

C10H22N2S2 CAS 65113-46-4 (5985)  
N,N'-Dimethyl-1,7-diaza-4,10-dithiacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag++	gl	NaClO4	25°C	0.10M	U		K1=11.15 B(AgHL)=14.71	1985SLa (76373)	3134

\*\*\*\*\*

C10H24N4 L Cyclam CAS 295-37-4 (8)  
1,4,8,11-Tetraazacyclotetradecane; cyclo(-(HN.CH2.CH2.NH.(CH2)3)2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag++	gl	KNO3	25°C	0.1M	U			1994GRb (76660)	3135

K(2Ag(I)NO3+L=AgL(NO3)2+Ag(0))=12.78

Ag++	vlt	oth/un	25°C	0.20M	C		K1=43.4	1990KMc (76661)	3136
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Method: polarography

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C10H25N5 L 15-Ane-N5 CAS 295-64-7 (99)  
1,4,7,10,13-Pentaazacyclopentadecane; cyclo(-(HN.CH2.CH2)5-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag++	vlt	oth/un	25°C	0.20M	C		K1=43.6	1990KMc (76731)	3137

Method: polarography

\*\*\*\*\*

C11H27N5 L CAS 29783-72-0 (98)  
1,4,7,10,13-Pentaazacyclohexadecane; cyclo(-(NH.CH2.CH2)5.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag++	vlt	oth/un	25°C	0.20M	C		K1=43.3	1990KMc (80031)	3138

Method: polarography

\*\*\*\*\*

C12H8N2 L Phenanthroline CAS 66-71-7 (144)  
1,10-Phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ag++	vlt	R4N.X	25°C	0.10M	U		B2=26.48	1986IGa (80415)	3139

Medium: 0.1 M (C<sub>2</sub>H<sub>5</sub>)<sub>4</sub>N.ClO<sub>4</sub>, beta obtained by chronovoltammetry

Disproportionation const.  $K(2AgL2+2H=AgL2+Ag+2HL)=-3.38$

\*\*\*\*\*

C<sub>14</sub>H<sub>32</sub>N<sub>4</sub> L 4-Mecyclam-14 CAS 41203-22-9 (935)

1,4,8,11-Tetramethyl-1,4,8,11-tetraazacyclotetradecane;

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

Ag++ ISE KNO<sub>3</sub> 25°C 0.1M U 1994GRb (90802)3140

$K(2Ag(I)NO_3+L=AgL(NO_3)_2+Ag(0))=11.78$

\*\*\*\*\*

C<sub>16</sub>H<sub>36</sub>N<sub>4</sub> L CAS 54622-44-5 (147)

5,5,7,12,12,14-Hexamethyl-1,4,8,11-tetraazacyclotetradecane;

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

Ag++ gl NaClO<sub>4</sub> 25°C 0.10M U 1985PPa (95535)3141

$K(AgH-1L+H)=2.6$

Metal ion: Ag(III)

\*\*\*\*\*

C<sub>18</sub>H<sub>32</sub>N<sub>4</sub>O<sub>8</sub> H<sub>4</sub>L TETA CAS 60239-22-7 (1019)

1,4,8,11-Tetraazacyclotetradecane-1,4,8,11-tetraethanoic acid;

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

Ag++ vlt oth/un 25°C 0.20M C K<sub>1</sub>=39.3 1990KMc (98187)3142

Method: polarography

\*\*\*\*\*

C<sub>20</sub>H<sub>35</sub>N<sub>5</sub>O<sub>10</sub> H<sub>5</sub>L (6545)

1,4,7,10,13-Pentaazacyclopentadecane-N,N',N'',N''',N''''-pentaethanoic acid;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Ag++ vlt oth/un 25°C 0.20M C K<sub>1</sub>=42.5 1990KMc (100530)3143

Method: polarography

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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

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