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START Experiments recorded for
   from SC-Database on Saturday, 01 January, 2000 at 00:53:24
Software version = 5.81 Data version = 4.62
Experiment list contains 447 experiments for
(no ligands specified)
3 metals : Pt(IV), Pt(not2,4), Pt++
(no references specified)
 (no experimental details specified)
*******************************
e -
               HL Electron
                                   (442)
Electron;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt(IV) EMF none 25♦C 0.00 U T
                                          1972GIa (815) 1
                              K=24.54(726mV)
                              K'=20.72(613mV)
K: PtCl6-- + 2e=PtCl4-- + 2Cl-. At 60 C, K=21.72(718mV)
K': PtBr6-- + 2e=PtBr4-- + 2Br-. At 60 C, K=18.40(608mV)
______
                                   1972GIa (816) 2
Pt(IV) EMF NaClO4 25♦C 3.00M U TI
                              K = -1.12
Medium: HC104; K: Pt(s) + PtC16-- + 2C1-=2PtC1(II)4--; K=-1.70(60 C). In 3M
HCl, K=-1.14(25 C), -1.68(60 C). In 3 M NaClO4, K=-0.80(25 C), -1.39(60 C)
-----
Pt(IV) EMF NaClO4 25♦C 3.00M U TI
                                          1972GIa (817) 3
                              K = -2.86
Medium: HClO4; K: Pt(s) + PtBr6-- + 2Br-=2PtBr4 --. K=-2.70(60 C). In 3M HBr
K=-2.88(25 C), -2.77(60 C); In 3 M NaClO4, K=-2.70(25 C), -2.59(60 C)
______
Pt(IV) oth oth/un 25�C 0.07M U M
                                          1969PEa (818) 4
                              K=18.59(550mV, A=1/2en)
K: trans-PtA4C12++ + 2e=PtA4++ + 2C1-. K=20.39(603mV, A=MeNH2).
K=20.28(600mV, A=NH3). K=21.70(642mV, A=EtNH2). Method: from thermodynamics
______
Pt(IV) EMF KCl 25 C 1.00M U I M
                                          1968GDd (819) 5
                              K=19.58, 579.0 mV
                              K'=20.85, 616.8 mV
K: Pt(en)2C12 + 2e=Pt(en)2++ + 2C1; K': Pt(MeNH2)4C12+2e=Pt(MeNH2)4+2C1
Data in DMSO and with HCl and many substituted amines
______
Pt(IV) oth NaClO4 60♦C 3.00M U
                                          1968GLa (820) 6
                              K=16.01, 529mV
Medium: 3 M NaCl+NaClO4. In HCl+HClO4: K= 15.82, 523mV.
K: PtCl6-- + 2Ag(s) = PtCl4-- + 2AgCl(s)
Pt(IV) EMF NaCl 20♦C 0.10M U T M
                                          1968ZMa (821) 7
                              K=22.83(664mV,20 C)
K: PtAX2+ + 2e=PtA+ + 2X-(A=(MeNH2)3NO2,X=C1). K=19.35(678mV,80 C). X=Br:
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23.97,(697mV,20 C), 15.64(548,80 C). X=OH: 4.68(136mV,20 C), 3.08(108mv,80C)
-----
                                            1967GLa (822) 8
Pt(IV) oth NaClO4 60♦C 3.00M U
                               K = -1.35
Medium: 3 NaCl+NaClO4. With HCl+HClO4: K=-1.70. K:Pt(s)+PtCl6+2Cl=2Pt(II)Cl4
                             M
Pt(IV) EMF none 25♦C 0.0 U
                                            1966CMb (823) 9
                               K=26.17, 759 \text{ mV}
                               K'=26.97, 763 mV
K: Pt(NH3)2(NO2)2Cl2+2e=Pt(NH3)2(NO2)2+2Cl. K'=Br in place of Cl. Data also
for many similar equilibria
______
                                            1964KSa (824) 10
Pt(IV) EMF oth/un 25♦C 3.00M U
                               K=23.94(0.708V)
Medium: H2SO4. K: PtCl6-- + 2e=PtCl4-- + 2Cl-
______
                                1964YTa (825) 11
Pt(IV) EMF oth/un 35♦C 1.00M U T
                               K=23.88(730mV, 35 C)
Medium: HCl. K: PtCl6-- + 2e=PtCl4-- + 2Cl-. K=21.94(747mV, 70 C), 21.01(757mV,
90 C)
______
                                            1961YTa (826) 12
Pt(IV) EMF none 25♦C 0.0 U T H
                               K=24.71(730.8 mV)
K:Pt(IV)Cl6+2e=Pt(II)Cl4+2Cl. DH(K)=-113.8 kJ mol-1, DS=217. At 40 C: K=24.8
770 mV)
______
Pt(IV) EMF none 25♦C 0.0 U
                                            1952LAb (827) 13
                               K=34(1010 \text{ mV})
K: PtO2(s)+2H+2e=Pt(OH)2(s). K(Pt(IV)C16+2e=PtC14+2C1)=23.0(680 mV).
K(Pt(OH)2(s)+2H+2e=Pt(s)+2H2O)=33(980 \text{ mV}).K(PtBr4+2e=Pt(s)+4Br)=19.6(580 \text{ mV})
______
Pt(IV) EMF oth/un 25�C dil U M
                                            1949G0a (828) 14
                               K=19.71, 583 mV
                               K'=20.18, 597 \text{ mV}
                               K''=20.29, 600 \text{ mV}
K: Pt(NH3)4Br2++ + 2e = Pt(NH3)4++ + 2Br-. K'=Pt(NH3)2Br2+2e=cis-Pt(NH3)2Br2
+2Be. K"=trans. Data also for I analogues
Pt(IV) EMF oth/un 25♦C 1.0M U
                                            1937GPa (829) 15
                               K=15.83(468 mV)
Medium: KSCN. K: Pt(IV)(SCN)6+2e=Pt(II)(SCN)4+2SCN
                               1937GPa (830) 16
Pt(IV) EMF NaCl 25♦C 1.0M U TI
                               K=25.6(758 \text{ mV})
K: Pt(IV)Cl6+2e=Pt(II)Cl4+2Cl. At 20 C: K=26.0(756 mV). At I=0, 25 C: K=
25.26(747 mV). With Pt(IV)Br6 K=21.41(633 mV); Pt(IV)I6: K=13.02(980 mV)
Pt(IV) EMF none 60♦C 0.0 U
                                            1931GRb (831) 17
                               K=22.5(745 \text{ mV})
K: Pt(IV)Cl6+2e=Pt(II)Cl4+2Cl
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Pt(IV) EMF none 50♦C 0.0 U
                                          1931STa (832) 18
                             K=23.1(740 \text{ mV})
K:Pt(IV)Cl6+2e=Pt(II)Cl4+2Cl
Pt(IV) EMF KCl 35♦C 0.10M U
                                           1930SMa (833) 19
                              K=14.96(457.3 mV)
K: Pt(IV)Cl6+2Hg(1)=PtCl4+Hg2Cl2(s). K(Pt(IV)Cl6=2e=PtCl4+2Cl)=26.79(792 mV)
------
Pt(IV) EMF none 13♦C 0.0 U
                                           1928TEa (834) 20
                              K=31(887 mV)
K: Pt(IV)Cl2(CN)4+2e=Pt(II)(CN)4+2Cl
********************************
               HL Bromide CAS 10035-10-6 (19)
Br-
Bromide;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt(IV) sol none 25�C 0.0 U I
                                           1985PKb (2242) 21
                              Kout(Pt(en)3+Br)=1.58
                              Kout(Pt(en)3+2Br)=2.4
Also Kout (1:1 complex)=0.75 (I=0.10 M), 0.33 (I=0.25 M), -0.11 (I=0.50 M)
and Kout (1:2 complex)=0.92 (I=0.10 M), 0.38 (I=0.25 M), -0.3 (I=0.50 M)
_____
Pt(IV) sp NaCl04 25♦C 0.1M C
                                           1975KNb (2243) 22
                              Kout(Pt(pn)3+L)= 0.48
Also for I=0.5 M K1out=-0.22; for 0 M K1out=1.38;
pn=propylenediamine
Pt(IV) ISE oth/un 42�C 3.0M U TI
                                         1974KSb (2244) 23
                              K6=3.29
Medium: H2SO4. K6=3.17(50 C), 3.09(55 C), 3.01(60 C), 2.88(70 C) m units
In 0.2 M H2SO4: K6=2.58(50 C), 2.41(60 C), 3.49(25 C)
                               1973KSh (2245) 24
Pt(IV)
       EMF NaNO3 40�C 1.0M U
                              K(PtAC12+L=PtAC1L+C1)=0.93
                               K(PtAC1L+L=PtAL2+C1)=0.58
                               K(PtBCl2+L=PtBClL+Cl)=1.03
                              K(PtBC1L+L=PtBL2+C1)=0.24
A=(NH3)2(CH3NH2)2; B=(NH3)2(C2H5NH2)2. K(PtCC12+L=PtCC1L+C1)=1.04, C=(NH3)2
H2NC2H40H
Pt(IV) sp NaClO4 25�C 3.0M U HM
                                          1972MNa (2246) 25
                             K(Pt(en)3+L)=-0.89
By solubility: K=-0.92
Pt(IV) sp NaClO4 25�C ? U
                                           1971EGc (2247) 26
                              K4=5.04
                              K5=4.0
                              K6=3.3
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Medium: HClO4
Pt(IV) gl oth/un 25�C var U T
                                     1967NPc (2248) 27
                          K6 = 2.4
                          K(PtL5OH+H)=5.7
                        M 1967NPc (2249) 28
Pt(IV) gl oth/un 25♦C 0.10M U
                          K(Pt(OH)6+L=Pt(OH)5L)=-4.23
                           K(Pt(OH)5L+L=Pt(OH)4L2)=-4.3
                           K(Pt(OH)4C12+L=Pt(OH)3L3)=-4.5
                           K(Pt(OH)3C13+L=Pt(OH)2L4)=-4.8
Also chemical analysis. K(Pt(OH)2L4+L=PtOHL5)=-4.9, K(PtOHL5+L=PtL6)=-5.3
                               1965DJa (2250) 29
Pt(IV) gl oth/un 50�C var U
                          K6=2.85
                          K(PtL50H+H)=4.4
-----
Pt(IV) sp oth/un 40♦C 0.0 U T H
                                     1963GNb (2251) 30
                          Kout(Pt(en)3+L)=1.25
Kout=1.14(10 C), 1.18(25 C). DH=6.2 kJ mol-1, DS=40.5 J K-1 mol-1
______
Pt(IV) sp none 25♦C 0.0 U M
                                    1960NPa (2252) 31
                         K1out(Pten3+Br)=0.9
H2L Carbonate CAS 465-79-6 (268)
CO3--
Carbonate:
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt(IV) sp NaClO4 25�C 0.1M C
                                     1975KNb (3352) 32
                          Kout(Pt(en)3+L)= 2.42
Also for I=0.5 M K1out=1.76; for 0 M K1out=4.15;
*****************************
              HL Chloride CAS 7647-01-0 (50)
C1-
Chloride;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt(IV) sol NaCl 100♦C 1.0M C T
                                     1995GAa (5503) 33
                          K5=1.46
Method: solubility of AgCl in Pt solution, 0.03-3.0 m HCl.
At 200 C, K5=0.15, at 300 C, K5=0.13; at 300 C, K4=2.26
                        Pt(IV) sol oth/un 25�C 0.0 U I
                                     1989GPa (5504) 34
                          Kout(cis-Pt(phen)2Cl2+Cl)=3.26
Medium: NaF. Also Kout=3.03 (I=0.1 M NaF), 2.63 (I=0.25 M),
2.25 (I=0.50 M), 2.07 (I=0.75 M).
-----
                        -----
Pt(IV) sol none 25♦C 0.0 U I
                                     1985PKb (5505) 35
                          Kout(Pt(en)3+Cl)=1.84
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Kout(Pt(en)3+2C1)=3.8
Also Kout (1:1 complex)=1.09 (I=0.10 M), 0.62 (I=0.25 M), 0.22 (I=0.50 M)
and Kout (1:2 complex)=1.51 (I=0.10 M), 0.48 (I=0.25 M), -0.16 (I=0.50 M)
Pt(IV) sp NaClO4 25�C 0.1M C
                                          1975KNb (5506) 36
                              Kout(Pt(pn)3+L) = 0.68
Also for I=0.5 M K1out=0.15; for 0 M K1out=1.51;
pn=propylenediamine
______
Pt(IV) EMF NaNO3 40♦C 1.0M U M
                                          1973KSe (5507) 37
                              K(PtL2A4+L)=3.15
                              K(PtL3A4+L)=2.55
A=CH3NH2. Data also for many other substituents
Pt(IV) EMF oth/un 25�C 3.0M U T H
                                        1972KSb (5508) 38
                              K6=2.88
Medium: H2SO4. DH(K6)=-30.5 kJ mol-1. K6=2.72(35 \text{ C}), 2.55(42 \text{ C}), 2.49(50 \text{ C})
_____
Pt(IV) sp NaClO4 25�C 3.0M U HM 1972MNa (5509) 39
                              K(Pt(en)3+L)=-0.25
By solubility: K=-0.21
______
Pt(IV) EMF oth/un 25♦C ? U T M
                                          1971ZFc (5510) 40
                              K(Pt(OH)2(NH3)4+L)=-1.42
                              K(Pt(OH)2(NH3)3NO2+L)=-0.02
At 50 C: values: -1.22, 0.08
-----
                                          1970CPa (5511) 41
Pt(IV) oth oth/un ? var U
                              K(PtL4(H20)OH+H)=1.9
                              K(PtL4(OH)2+H)=5.5
Method: ir and Raman
Pt(IV) EMF oth/un 25♦C 3.0M U T HM
                                         1970KSa (5512) 42
                              K6=2.76
Medium: H2SO4. DH(K6)=-23.0 kJ mol-1. K6=2.72(35 C), 2.61(42 C), 2.49(50 C),
2.41(60 C). In 0.2 M H2SO4, 25 C: K6=2.36
Pt(IV) gl oth/un ? dil U
                                          1970MMg (5513) 43
                           K(PtCl50H+H)=3.80
______
Pt(IV) EMF NaClO4 60♦C 3.0M U
                                          1968GLa (5514) 44
Pt(IV) gl KNO3 20¢C 0.10M U T
                                          1966GKd (5515) 45
                              K(trans-Pt(NH3)2L3+L)=2.40
                              K(trans-Pt(NH3)2L2+L)=3.7
Also values at 20 - 50 C
-----
Pt(IV) ISE NaClO4 25�C var U
                                          1966SDb (5516) 46
                              K5K6=5.60
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Pt(IV) gl NaCl 50♦C var U
                                     1965DJa (5517) 47
                          K6=1.49
                          K(PtL50H+H)=3.8
Pt(IV) gl KCl 40�C var U T
                                     1965NPb (5518) 48
                          K5 = 3.7
                          K6=2.25
                          K(PtL50H+H)=5
K(PtL4(H20)OH+H)=4.2(25-45 C), K(PtL4(OH)2+H)=6.2(25-35 C)
Pt(IV) sol none 20♦C 0.0 U
                                    1963CRb (5519) 49
                        K(Cs2PtL6(s)=2Cs+PtL6)=-11.08
Pt(IV) sp oth/un 40♦C 0.0 U T H
                                     1963GNb (5520) 50
                          Kout(Pt(en)3+L)=1.29
Kout=1.17(10 C), 1.24(25 C). DH=6.7 kJ mol-1, DS=46 J K-1 mol-1
                  Pt(IV) sp none 25♦C 0.0 U
                                    1960NPa (5521) 51
                          Kout(Pt(en)3+L)=1.04
********************************
C104-
              HL Perchlorate CAS 7001-90-3 (287)
Perchlorate;
            -----
    Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
      sp NaClO4 20�C 0.15M U M
                                     1960RSa (6356) 52
                          K(Pt(en)3+L) < 0.74
****************
F-
              HL Fluoride CAS 7644-39-3 (201)
Fluoride;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
·----
                        M
      sol NaClO4 25�C 3.0M U
                                    1972MNa (7120) 53
                         K(Pt(en)3+F)=0.04
**********************
                               (541)
Halides, comparative (for book data under ligand 80)
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt(IV) sp NaClO4 25�C 5.0M U I M
                                     1968PVa (7417) 54
                          K(PtA4I2+Cl=PtA4+I2Cl)=-4.22
A=CN. K=-3.55(Br,I=5),-1.63(I,I=0.5)
Pt(IV) sp NaCl 25♦C 0.20M U
                                     1965RJa (7418) 55
                          K(PtA4Cl2+Br=PtA4ClBr+Cl)=1.2
                          K(PtA4ClBr+Br=PtA4Br2+Cl)=0.64
A=NH3
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Pt(IV) sp oth/un 20♦C 0.50M U M 1963POb (7419) 56
K(trans-Pt(en)2Cl2+Br=Pt(en)2ClBr+Cl)=1.06; K(Pt(en)2ClBr+Br=Pt(en)2Br2+Cl)
=0.63
Pt(IV) oth oth/un 25♦C 0.50M U T H
                                              1960PVa (7420) 57
                                 B6(I)/B6(C1)=18.24
                                 B6(I)/B6(Br)=15.93
Method: chemical anal. B6(I)/B6(Cl)=19.30(0 C), 17.09(45 C); /Br=17.79(0 C),
15.10(44 C). DH(PtCl6+6I=PtI6+6Cl)=-79 kJ mol-1. DH(PtBr6+6I=PtI6+6Br)=-96
******************************
                 HL Iodide
Ι-
                               CAS 10034-85-2 (20)
Iodide;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt(IV) sp NaCl04 25♦C 0.1M C 1975KNb (8328) 58 Kout(Pt(pn)3+L)= 0.0.34
Also; for 0 M K1out=1.23;
pn=propylenediamine
______
Pt(IV) sol NaClO4 25♦C 3.0M U
                                             1972MNa (8329) 59
                               K(Pt(en)3+I)=-1.05
Pt(IV) EMF oth/un 25♦C dil U T M 1971ZFa (8330) 60
                                 K(cis-PtA2L2(H20)OH+H)=2.45
                                 K(trans-PtA2L2(H20)OH+H)=2.52
                                 K'(cis-PtA2L2(OH)2+H)=3.68
                                 K'(trans-PtA2L2(OH)2+H)=3.71
A=NH3. K(cis)=3.43(0 C), 2.26(50 C). K(trans)=3.38(0 C), 2.26(50 C)
K'(cis)=4.25(25 C), 3.41(50 C). K'(trans)=4.25(25 C), 3.46(50 C)
Pt(IV) EMF oth/un 25♦C dil U
                                              1971ZFb (8331) 61
                                 K(Pt(NH3)3I(H20)OH+H)=2.65
                                 K(Pt(NH3)3I(OH)2+H)=3.23
                                 K(Pt(NH3)3I2OH+H)=3.35
0-50 C
Pt(IV) ISE oth/un 25♦C dil U
                                              1967CPb (8332) 62
                                 K4=4.8
                                 K5 = 4.4
                                 K6=3.4
                                 K(PtI4+I=PtI3+I2)=0.8
Also spectrophotometry, glass electrode, kinetics. K(PtI50H+H)=8.6
K(PtI6=Pt(II)I4+I2)=8.1
Pt(IV) gl oth/un 25♦C 0.10M U
                                             1967NPc (8333) 63
                                 K(Pt(OH)6+L=Pt(OH)5L+OH)=-1.57
                                 K(Pt(OH)5L+L)=-1.82
                                 K(Pt(OH)4L2+L)=-1.87
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K(Pt(OH)3L3+L)=-2.0
K(Pt(OH)2L4+L=Pt(OH)L5+OH)=-2.38, K(PtOHL5+L=PtL6+OH)=-3.38
______
      sp oth/un 40�C 0.0 U T H
                                     1963GNb (8334) 64
Pt(IV)
                          Kout(Pt(en)3+L)=1.20
Kout=1.11(10 C),1.15(25 C). DH=5.4 kJ mol-1, DS=40 J K-1 mol-1
**********************************
NH3
                  Ammonia
                             CAS 7664-41-7 (414)
Ammonia
      Mtd Medium Temp Conc Cal Flags Lg K values
-----
              25♦C 0.0 U
      sp none
                                     1997FHa (9198) 65
*K((NH3)3Pt(NH2)3Pt(NH3)3)=-7.75. Reaction is proton loss from a
terminal NH3
*********************************
                  Hydroxylamine; CAS 5470-11-1 (1808)
Hydroxylamine; NH2.OH
___________
    Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
                                     1998HHa (9272) 66
Pt(IV)
      kin NaCl 25�C 0.10M U
                          Kout(PtCl6+L)=2.19
                           Kout(trans-PtCl4(NH3)2+L)=1.75
                           Kout(cis-PtCl4(NH3)2+L)=1.68
********************************
NO3-
              HL
                              CAS 7697-37-2 (288)
                  Nitrate
Nitrate;
          -----
                                    Reference ExptNo
      Mtd Medium Temp Conc Cal Flags Lg K values
______
                                     1985PKb (9878) 67
       sol none 25♦C 0.0 U I
Pt(IV)
                           Kout(Pt(en)3+NO3)=2.38
                          Kout(Pt(en)3+2NO3)=3.92
Also Kout (1:1 complex)=1.39 (I=0.10 M), 0.75 (I=0.25 M), 0.36 (I=0.50 M)
and Kout (1:2 complex)=2.18 (I=0.10 M), 1.0 (I=0.25 M), 0.25 (I=0.50 M)
      sp oth/un 25♦C 0.0 U
                                     1960NPa (9879) 68
Pt(IV)
                          Kout(Pt(en)3+L)=-0.1
**********************************
OH-
                  Hydroxide
                               (57)
Hydroxide;
           Metal Mtd Medium Temp Conc Cal Flags Lg K values
                                      Reference ExptNo
______
Pt(IV) sp oth/un 25♦C
                                     1969SJb (11965) 69
                          K = 4.84
K: trans-Pt(CN)4Br2 + OH=Pt(CN)4BrOH + Br
Pt(IV) gl oth/un 25�C dil U
                        Μ
                                     1968GGe (11966) 70
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*K1(Pt(NH3)5Cl)=-8.05
                                *K2(Pt(NH3)5C1)=-10.72
                                *K1(NH3)4(py)Cl=-6.92
                                *K2(NH3)4(py)C1)=-10.52
For Pt(NH3)4(py)2Cl: *K1=-5.74, *K2=-10.12
Pt(IV) gl oth/un 25?♦C dil U
                                            1967GIb (11967) 71
                                *K1(tr-Pt(NH3)2(py)2Cl2)=-9.96
                                *K1(cis-Pt(NH3)2py2Cl2)=-9.39
                                            1966GGd (11968) 72
Pt(IV) gl oth/un 25�C dil U
                                *K1(Pt(NH3)4Cl2)=-11.17
                                *K1(Pt(NH3)3(py)Cl2)=-10.00
                                *K1(tr-Pt(NH3)2(py)2Cl2)=-9.95
                                *K1(cis-Pt(NH3)2(py)2Cl2)=-9.4
                             -----
                             M 1964CBb (11969) 73
Pt(IV) sol oth/un 20�C var U
                                *K1(Pt(NH3)2(CN)3Cl)=-12.7
                                *K1(Pt(NH3)2(CN)2Br)=-12.8
                                *K1(Pt(NH3)2(CN)3I)=-13.0
                                *K1(Pt(MeNH2)2(CN)2I2)=-14.05
Data also for Pt(MeNH2)2(CN)3X): *K1=-12.9(X=Cl,Br), -13.3(X=I) plus others
                             M 1964CBc (11970) 74
Pt(IV) gl oth/un 20♦C dil U
                                *K1(Pt((en)(CN)2(NH3)Cl)=-8.6
       sol KCl 20�C 0.10M U M
Pt(IV)
                                           1963CBa (11971) 75
                               *K1(Pt(CN)4(NH3)2)=-12.12
                              1962JBa (11972) 76
Pt(IV) gl oth/un 25♦C 0.40M U I M
                                *K1(Pt(NH3)6)=-7.80
                                *K2(Pt(NH3)6)=-11.1
At I=0.02 \text{ M } *K1=-7.20, *K2=-10.5. Data also for Pt(NH3)5C1, Pt(NH3)4C12 and
Pt(NH3)3Cl3
______
Pt(IV) con oth/un 25♦C 0.01M U I M
                                            1962JBa (11973) 77
                                *K1(trans-Pt(en)2Cl2)=-11.0
By glass electrode, I=0.16 M *K1=-11.3
Pt(IV) gl oth/un 25♦C 0.02M U
                                           1962JBa (11974) 78
                                *K1(trans-Pt(en)2H2OCl)=-3.70
                                *K2 < -10.8
Data for other related complexes
______
Pt(IV) gl oth/un 20�C dil U M
                                            1961CKb (11975) 79
                                *K1=-10.1(X=C1)
                                *K1=-9.9(X=Br)
                                *K1=-6.7(X=I)
Metal: Pt(en)(NH3)2X2++. Data also for many similar mixed complexes
______
```

```
Pt(IV) gl oth/un 18♦C dil U
                                        1961GGd (11976) 80
                             *K1(Pt(NH3)5C1)=-8.4
                             *K2 = -10.5
                             *K1(Pt(MeNH2)4NH3Cl)=-6.8
                             *K2 = -10.6
Pt(IV) gl oth/un ? dil U
                                        1961KUb (11977) 81
                             *K1=-4.99
Metal: Pt(ClNCH2CH2NHCl)PyNO2NH3Cl+
Pt(IV) EMF oth/un 29♦C dil U
                                        1960PSa (11978) 82
                             *K1(Pt(NH3)6)=-7.16 in H20
                             *K1(Pt(NH3)6)=-7.80 in D20
______
Pt(IV) gl oth/un 25�C dil U
                                       1959GVa (11979) 83
                             *K1(trans-Pt(NH3)4Cl2)=-11.2
                             *K1(cis)=-9.46
                             *K2(cis)=-10.25
                             *K1(Pt(pn)3)=-5.41
*K2(Pt(pn)3)=-9.60, *K3=-10.68; *K1(Pt(pn)2Cl2)=-8.21, *K2(cis)=-10.36
*K2(trans)=-10.47
Pt(IV) EMF oth/un 20♦C var U
                                        1956J0a (11980) 84
                             *K1(Pt(NH3)6)=-7.75
Data also for Pt(NH3)5Cl, PtNH3)3Cl3
______
Pt(IV) gl oth/un 25�C dil U
                                        1949GGc (11981) 85
                             *K1(Pt(MeNH2)4Cl2)=-10.85
                             *K1(Pt(EtNH2)4Cl2)=-11.2
                          _____
Pt(IV) gl oth/un 25♦C dil U
                                        1948GGa (11982) 86
                             *K1(Pt(NH3)6)=-7.92
                             *K2(Pt(NH3)6)=-10.08
Data also for Pt(NH3)50H, Pt(NH3)5Br, Pt(NH3)3Cl3 etc.
______
Pt(IV) sp oth/un 20♦C dil U T HM
                                        1930GFa (11983) 87
                             *K1(Pt(NH3)6)=-8.9
DH(*K1)=86.6; *K1=-8.6(30 C), -7.6(50 C). Data also for Pt(NH3)5Cl,
Pt(NH3)50H, Pt(NH3)4Cl2
*******************************
SCN-
                HL
                    Thiocyanate CAS 463-56-9 (106)
Thiocyanate;
  Reference ExptNo
Metal Mtd Medium Temp Conc Cal Flags Lg K values
______
                          М
Pt(IV) sp NaClO4 35�C 1.10M U
                                        1967MBd (15233) 88
                             K(PtA4C12+L=PtA4C1L+C1)=2.55
                             K(PtA4ClL+L=PtA4L2+Cl)=1.08
A=NH3
**********************************
```

```
S03--
           H2L Sulfite CAS 7782-99-2 (801)
Sulfite:
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt(IV) sp NaClO4 25♦C 0.1M C
                                  1975KNb (15475) 89
                        Kout(Pt(en)3+L)= 2.89
Also for I=0.5 M K1out=2.20; for 0 M K1out=4.60;
****************************
                        CAS 7664-93-9 (15)
S04--
             H2L Sulfate
Sulfate:
______
    Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt(IV) sp NaCl04 25♦C 0.1M C
                                  1975KNb (16484) 90
                        Kout(Pt(en)3+L)= 2.18
Also for I=0.5 M K1out=1.26; for 0 M K1out=3.95;
-----
Pt(IV) sp NaClO4 25♦C 0.1M C
                                  1975KNb (16485) 91
                        Kout(Pt(pn)3+L)= 2.01
Also for I=0.5 M K1out=1.08; for 0 M K1out=3.75;
pn=propylenediamine
-----
Pt(IV) sp oth/un 25◊C 0.0 U M
                                  1960NPa (16486) 92
                        Kout(Pt(en)3+L)=3.52
***********************
            H2L
Se03--
                Selenite
                           CAS 7783-00-8 (2391)
Selenite;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt(IV) sp NaClO4 25�C 0.1M C
                                  1975KNb (17070) 93
                        Kout(Pt(en)3+L)= 2.76
Also for I=0.5 M K1out=1.76; for 0 M K1out=4.30;
********************************
             HL
                 Formic acid CAS 64-18-6 (37)
CH202
Methanoic acid; H.COOH
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
     sol oth/un 25�C 0.0 U I
                                  1989GPa (17641) 94
                        Kout(cis-Pt(phen)2Cl2+L)=1.91
Medium: NaF. Also Kout=1.24 (I=0.1 M NaF), 0.29 (I=0.25 M),
-0.32 (I=0.50 M).
______
Pt(IV) sol none 25♦C 0.0 U I
                                  1985PKb (17642) 95
                        Kout(Pt(en)3+L)=1.3
Also Kout=0.45 (I=0.10 M), 0.37 (I=0.25 M), 0.3 (I=0.50 M)
*********************************
                 Methylamine CAS 74-89-5 (155)
CH5N
```

```
Methylamine; CH3.NH2
    -----
     Mtd Medium Temp Conc Cal Flags Lg K values
                                  Reference ExptNo
-----
                  EMF KNO3 25♦C 1.00M U
                                 1973KYb (18028) 96
                       B(PtL4Cl2)=61.0
*******************************
                          CAS 97049-30-4 (4220)
C2H4N2S3
             HL
5-Mercapto-1,3,4-thiadiazolidine-2-thione; cyclo(-NH.NH.CS.S.C(SH)-)
______
      Mtd Medium Temp Conc Cal Flags Lg K values
                                  Reference ExptNo
______
      sp NaClO4 20♦C 1.00M U
                                 1968GKa (19457) 97
                       B4=8.40
***********************************
             HL
                Acetic acid CAS 64-19-7 (36)
Ethanoic acid; CH3.COOH
           Mtd Medium Temp Conc Cal Flags Lg K values
                                  Reference ExptNo
______
Pt(IV)
     sol oth/un 25�C 0.0 U I
                                 1989GPa (20140) 98
                       Kout(cis-Pt(phen)2Cl2+L)=2.47
Medium: NaF. Also Kout=1.84 (I=0.1 M NaF), 1.24 (I=0.25 M),
1.04 (I=0.50 M), 0.21 (I=0.75 M).
********************************
                         CAS 75-04-7 (156)
                Ethylamine
Ethylamine; CH3.CH2.NH2
______
    Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
      EMF KNO3 25♦C 1.00M U
Pt(IV)
                      М
                                 1973KYb (22277) 99
                       B(PtL4C12)=53.9
*************************************
                Ethylenediamine CAS 107-15-7 (23)
1,2-Diaminoethane; H2N.CH2.CH2.NH2
______
      Mtd Medium Temp Conc Cal Flags Lg K values
                                  Reference ExptNo
______
      EMF KNO3 25♦C 1.00M U
                                 1973KYb (23224) 100
                       B(PtL2C12)=56.6
********************************
            H2L
                Cysteine
                          CAS 52-90-4 (96)
2-Amino-3-mercaptopropanoic acid; H2N.CH(CH2.SH)COOH
------
     Mtd Medium Temp Conc Cal Flags Lg K values
                                  Reference ExptNo
______
      gl NaNO3 15 C 0.10M U T K1=13.40 B2=18.65 1984IDa (26831) 101
At 30 C, K1=13.35, K2=5.15.
*********************************
C4H7N04
                Aspartic acid CAS 56-84-8 (21)
            H2L
```

```
Aminobutanedioic acid; H2N.CH(CH2.COOH).COOH
-----
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt(IV) gl NaCl04 25�C 0.10M U K1=9.56 B2=13.49 1972SSe (31933) 102
*****************************
C5H5N
             L Pyridine CAS 110-86-1 (31)
Pyridine, Azine;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt(IV) EMF KNO3 25♦C 1.00M U
                                  1973KYb (36668) 103
                        B(Pt(NH3)3LC12)=50.7
                        B(Pt(NH3)2L2C12)=50.2(cis)
                        B(Pt(NH3)2L2C12)=49.6(trans)
                        B(Pt(NH3)L3C12)=43.9
B(PtL4C12)=40.8
*****************************
        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
______
Pt(IV) gl NaCl04 25�C 0.10M U K1=8.99 B2=12.68 1972SSe (39122) 104
CAS 54376-69-1 (8335)
C5H10N4O3
N,N'-Carbonylbis(2-aminoacetamide);
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt(IV) gl NaClO4 25♦C 0.10M U TIH K1=10.90 B2=17.60 1980SAc (40138) 105
Data for 0.075-0.15 M. At I=0, K1=11.10, K2=6.95. Also data for 30 C.
DH and DS values.
*******************************
                 Piperidine CAS 110-89-4 (105)
Perhydropyridine; cyclo(-CH2.CH2.CH2.NH.CH2.CH2-) C5H11N
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
_______
     EMF KNO3 25♦C 1.00M U
                                  1973KYb (40453) 106
                      B(Pt(NH3)2L2Cl2)=55.7(cis)
********************************
             H2L Ascorbic acid CAS 50-81-7 (285)
C6H806
Ascorbic acid (Vitamin C);
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt(IV) kin NaCl 25♦C 0.10M U
                                  1998HHa (45653) 107
                        Kout(PtCl6+L)=-3.19
                        Kout(trans-PtCl4(NH3)2+L)=-2.4
```

```
Kout(cis-PtCl4(NH3)2+L)=-2.63
*******************************
                           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
                   sp oth/un 30♦C 0.0 U
                                  1966NNa (45711) 108
                        K(?)=2.65
*************************
             H2L
                 Thiosalicylic CAS 147-93-3 (236)
2-Mercaptobenzoic acid; HS.C6H4.COOH
    Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
------
                       K1=4.25 1973NNa (53914) 109
Pt(IV) oth alc/w ? 50% U
                        B3=12.0
*******************************
                           CAS 23499-73-2 (4588)
5-Chlorofurylacrolein thiosemicarbazone; Cl.C4H2O.CH:CH.CH:N.NH.CS.NH2
______
     Mtd Medium Temp Conc Cal Flags Lg K values
                                   Reference ExptNo
______
Pt(IV) sp oth/un 20♦C 0.10M U
                                  1972KLa (59395) 110
                        B3eff = 10.72 at pH 4
*******************************
C8H8N4O3S
5-Nitrofurylacrolein thiosemicarbazone; O2N.C4H2O.CH:CH.CH:N.NH.CS.NH2
______
   Mtd Medium Temp Conc Cal Flags Lg K values
                                   Reference ExptNo
______
     sp oth/un 20♦C 0.10M U
                                  1972KLa (59414) 111
                       B3 = 10.60 (pH 4)
*********************
C8H9N3OS
                           CAS 5466-26-2 (4574)
Furylacrolein thiosemicarbazone; C4H3O.CH:CH.CH:N.NH.CS.NH2
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
------
     sp oth/un 20♦C 0.10M U B2=11.00
                                  1972KLa (60553) 112
**********************************
C9H11N3OS
                           CAS 34161-38-1 (4681)
5-Methylfurylacrolein thiosemicarbazone;
______
     Mtd Medium Temp Conc Cal Flags Lg K values
                                   Reference ExptNo
______
     sp oth/un 20♦C 0.10M U
                                  1972KLa (66474) 113
                        B3=11.25 (pH 4)
********************************
C10H11N3S
                           CAS 5351-70-2 (4734)
```

```
Cinnamaldehyde thiosemicarbazone; C6H5.CH:CH:N.NH.CS.NH2
______
      Mtd Medium Temp Conc Cal Flags Lg K values
                                   Reference ExptNo
______
Pt(IV) sp alc/w 20�C 50% U
                                   1972KLa (71086) 114
                         B3=10.82
Medium: 50% EtOH, 0.1 M, pH=4
*********************************
          L Methoxypromazin CAS 61-01-8 (2872)
C18H22N2OS
10-(3-Dimethylaminopropyl)-2-methoxyphenothiazine;
______
      Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
Pt(IV) sp oth/un 27♦C 1.00M U
                                   1984TSa (97511) 115
                         Keff=5.58
Medium: 1 M H3PO4
**********************************
                            CAS 10035-10-6 (19)
Br-
                  Bromide
Bromide;
          Metal Mtd Medium Temp Conc Cal Flags Lg K values
______
Pt(not2,4) sp oth/un 25♦C 0.10M U
                       М
                                   1985EBa (2253) 116
                         K(Pt2A4(H20)2+L)=1.32
                         K(Pt2A4L(H20)+L)=1.34
Pt(III). A=HPO4. Medium: phosphate buffer, pH 3.0
*******************************
C1-
              HL
                  Chloride
                            CAS 7647-01-0 (50)
Chloride;
Metal Mtd Medium Temp Conc Cal Flags Lg K values
                                    Reference ExptNo
______
Pt(not2,4) sp oth/un 25♦C 0.10M U
                                   1985EBa (5522) 117
                         K(Pt2A4(H20)2+L)=1.28
                         K(Pt2A4L(H20)+L)=1.04
Pt(III). A=HPO4. Medium: phosphate buffer, pH 3.0
***********************
OH-
                  Hydroxide
              HL
                              (57)
Hydroxide;
           Reference ExptNo
      Mtd Medium Temp Conc Cal Flags Lg K values
______
Pt(not2,4) sp NaClO4 25�C 2.0M C
                                   2001SHb (11984) 118
Metal is Pt(III). *K((H2O)Pt(NH3)2APt(NH3)2(H2O))=-1.98. A is a-pyridonate
K((H20)Pt(NH3)2APt(NH3)2(H20)+X)=5.27(X=C1) and 5.33(X=Br)
*********************************
                            CAS 554-70-1 (166)
Triethylphosphine; (C2H5)3P
      Mtd Medium Temp Conc Cal Flags Lg K values
Metal
                                    Reference ExptNo
```

```
Pt(not2,4) nmr non-aq 0�C 100% U H
                                       1980MMa (51547) 119
Medium: toluene, Pt(0), -95 to 130 C, DH(PtL3+L=PtL4)=-63 kJ mol-1,DS=-227
***********************************
                               CAS 6476-36-4 (168)
Tri-isopropylphosphine; ((CH3)2CH)3P
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt(not2,4) nmr non-aq 0�C 100% U H
                                        1980MMa (68228) 120
Medium: Toluene(& Octane), Pt(0),-95 to 130 C. DH(PtL2+L=PtL3)=-42,DS=-169
*******************************
                                CAS 998-40-3 (170)
Tri-n-butylphosphine; (CH3.(CH2)3)3P
Metal Mtd Medium Temp Conc Cal Flags Lg K values
                                          Reference ExptNo
-----
Pt(not2,4) nmr non-aq 0�C 100% U
                                        1980MMa (84138) 121
Medium: Toluene, Pt(0),T=-95 to 130 C.DH(PtL3+L=PtL4)=-70.2 kJ mol-1,DS=265
********************************
                               CAS 1486-28-8 (1731)
Diphenyl-methyl-phosphine; CH3(C6H5)2P
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt(not2,4) nmr non-aq 0�C 100% U H
                                       1980MMa (85552) 122
Medium: Toluene, Pt(0),-95 to 130 C. DH(PtL3+L=PtL4)=-64 kJ mol-1,DS=-116
********************************
                               CAS 2622-14-2 (169)
Tri-(cyclohexyl)phosphine; (C6H11)3P
------
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt(not2,4) nmr non-aq 0�C 100% U H
                                        1980MMa (98315) 123
Medium: Toluene & heptane. Pt(0). -95 to 130 C.DH(PtL2+L=PtL3)=-54,DS=-202
*********************************
               HL Electron
e-
                                 (442)
Electron;
------
Metal Mtd Medium Temp Conc Cal Flags Lg K values
______
       gl oth/un 250C 3.00M U TI
                                        1972GIa (835) 124
                            K=25.63(758mV, 25 C)
K: PtCl4-- + 2e=Pt(s) + 4Cl-. K=23.21(767mV,60C)
In 1 M NaNO3, 18 C, K=24.79(716mV)
                       EMF oth/un 25 C 3.00M U TI
                                        1972GIa (836) 125
                             K=23.60(698mV, 25 C)
K: PtBr4-- + 2e=Pt(s) + 4Br-. K=21.09(697mV,60 C)
In 1 M NaNO3, 18 C, K=21.05(608mV)
```

```
Pt++ oth none 25◊C 0.0 U
                                     1968GHa (837) 126
                          K=26.0(0.77V) X=C1-
                           K=21.6(0.64V) X=Br-
                           K=13.2(0.39V) X=I-
                           K'=25.4(0.75V) X=C1-
Method:Literature evaluated data. K: Pt(IV)X6+2e=PtX4+2X.
K': PtX4+2e=Pt(s)+4X. K'=22.7(0.67V) X=Br-. K'=13.5(0.40V) X=I-
_____
                                     1964YTa (838) 127
     EMF oth/un 35�C 1.00M U T
                          K=24.50(749mV,35 C)
Medium:HCl;K:PtCl4-- + 2e=Pt(s) + 4Cl-. K=22.56(768mV,70C),21.60(778mV,90 C)
______
Pt++ EMF none 25♦C 0.0 U
                                     1952LAb (839) 128
                          K=24.5(726 \text{ mV})
K: Pt(II)Cl4+2e=Pt(s)+4Cl
______
Pt++ EMF none 60♦C 0.0 U
                                     1931GRb (840) 129
                         K=23.8(785 \text{ mV})
K: Pt(II)Cl4+2e=Pt(s)+4Cl
********************************
             HL Bromide CAS 10035-10-6 (19)
Br-
Bromide;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
Pt++ sp alc/w 25♦C 100% U
                                     1994PMc (2254) 130
                          K(PtACl2+Br=PtAClBr+Cl)=1.41
                           K(PtAClBr+Br=PtABr2+Cl)=0.43
                           K(PtAICl+Br=PtAIBr+Cl)=1.0
Medium: MeOH, 0.5 M LiClO4. A=C6H5S.CH2.CH2.SC6H5.
______
Pt++
     sp NaClO4 25�C 0.10M U
                                     1994SRa (2255) 131
                         K(PtAB(H20)+L=PtABL+H20)=2.15
A: C6H4.CH2.N(CH3)2; B: NC5H4.SO3-.
______
Pt++ sp NaCl04 25¢C 1.00M U I K1=1.9 1978ELa (2256) 132
Pt++ sol oth/un 25♦C 1.0M U HM
                                     1974MKf (2257) 133
                          K(Pt(NH3)4+L)=0.3
                          K(Pt(en)2+L)=0.65
Medium: NaF. By calorimetry.DH(Pt(NH3)4)=-5.2 kJ mol-1,DS=-12.1 J K-1 mol-1
DH(Pt(en)2)=-2.22, DS=5.0
______
      nmr non-aq 36�C 100% U H
                                    1973RBa (2258) 134
                           K = 0.32
Medium: CHCl3(S). K: trans-Pt(Bz2S)2L2=cis-Pt(Bz2S)2L2, Bz=benzoyl.
DH(K) = -20.1 \text{ kJ mol} -1
______
Pt++ gl KNO3 25�C 1.0M U
                                     1973SAa (2259) 135
```

K(H2PtLA+H)=2.26 K(HPtLA+H)=2.76 K(PtLA+H)=3.46 K(PtA+L)=1.47

```
H4A=EDTA. K(PtA+2L)=2.02
                     -----
Pt++ EMF mixed ? 0.10M U
                                  1972GGb (2260) 136
                         K(PtH(Ph3P)2+L)=1.51
in 70% w/w acetone/H20, 0.1 M NH4ClO4. (one (CH3)2CO exchanged for L, trans-
complex formed)
------
Pt++ gl NaNO3 25�C 0.05M U T HM
                                  1972JSa (2261) 137
                         K = 4.51
K: trans-Pt(NH3)2LH2O+L=trans-Pt(NH3)2L2+H2O. DH(K)=-35.6 kJ mol-1
K=4.75(15 C), 4.34(35 C)
-----
                             1972KTc (2262) 138
Pt++ gl NaNO3 25�C 0.30M U
                         K(PtL2(DMSO)+L)=3.60
Pt++ ISE KNO3 ? 0.01M U M 1971KTg (2263) 139
                    K(Pt(DMSO)+L)=5.40
______
Pt++ oth oth/un 25♦C var U M
                                   1971MKd (2264) 140
                    K(Pt(NH3)2L2+Pt(NH3)2L4)=-4.6
Medium: acetone, KBr. Pt(II)-Pt(IV) complex. Method: dialysis
______
Pt++ sp NaClO4 250C 0.50M U T M
                                  1970ELb (2265) 141
                         K3 = 3.6
                         K4=2.7
                         K(cis-trans-PtL2(H20)2)=-0.34
Medium: HClO4. K3=3.4, K4=2.6(35 C). Data also by kinetics
______
Pt++ EMF non-aq 450 C 100% U K1=0.13 B2=1.06 1970IJa (2266) 142
Medium: molten (Li,K)Cl; m units
_____
Pt++ sp NaClO4 25�C 1.0M U M
                                  1970MAc (2267) 143
                        K = 2.35
                         K'=1.76
K: trans-Pt(CN)2Cl2+L=Pt(CN)2ClL+Cl. K': Pt(CN)2ClL+L=Pt(CN)2L2+Cl
_____
Pt++ oth oth/un 35¢C 0.05M U T H K1=3.82 B2=6.74 1968GVa (2268) 144
Metal:Pt(NH3)2++. Method:chemical analysis. At 25 C:K1=4.05,K2=3.02
DH(K2)=-16.7 kJ mol-1, DS=1.7 J K-1 mol-1
______
     oth NaNO3 35�C 0.32M U T
                                   1967MBb (2269) 145
                         K(PtAC1+L=PtAL+C1)=0.54
A=diethylenetriamine. Method:chemical analysis. K=0.58(25 C). In 'dilute
soln.': K1=4.02(25 C), 4.07(35 C)
______
Pt++ gl oth/un 25♦C 0.10M U
                                   1967NPd (2270) 146
```

```
K(Pt(OH)4+H+L=Pt(OH)3L)=11.15
                              K(Pt(OH)3L+H+L=Pt(OH)2L2)=10.7
                              K(Pt(OH)2L2+H+L=PtOHL3)=10.0
                              K(PtOHL3+H+L=PtL4)=8.15
Pt++ gl NaNO3 40¢C .318M U T
                                          1967TGc (2271) 147
                              K4=2.40
                              K(2PtBr3=Pt2Br6)=1.0
                              K(PtBr3OH+H)=7.9
K4=2.76(15 C), 2.58(25 C)
                                   1967TMe (2272) 148
Pt++ oth NaNO3 25?♦C .318M U
                              K(Pt(dien)+L)=4.3
Method:chemical analysis
Pt++ con oth/un 20?♦C dil U
                                          1964CZd (2273) 149
                              K(Pt(MeNH2)2NO2+L)=4.07
______
Pt++ sol oth/un 25�C var U
                                          1964GDa (2274) 150
                              Ks(cis-Pt(NH3)2Br2)=-2.96
                              Ks(trans-Pt(NH3)2Br2)=-3.66
                              K(Pt(NH3)2BrH2O+Br)=3.2
Pt++ ix KNO3 18©C 0.10M U
                                          1962GSe (2275) 151
                              K(PtPyBr2H2O+Br)=2.35
Method: chemical analysis and cation exchange
______
Pt++
     EMF NaNO3 18�C 1.0M U
                                          1960GGb (2276) 152
                              B4 = 20.4
                              K(Pt+2e=Pt(s))=41.5 (1200 mV)
Method: Pt electrode
Pt++ oth KNO3 25©C 0.10M U T M
                                         1960GSc (2277) 153
                              K4=2.5
                              K(cis-PtBr(NH3)2H2O+Br)=2.74
                              K(trans-PtBr(NH3)2H2O+Br) > 3
By chemical analysis. 17-25 C. K4=2.62(18 C). K(PtBr2(NH3)H2O+Br)=2.4(18 C),
K(PtBr(NH3)2H2O+Br)=2.85(18 C,cis).
______
Pt++ oth none 25♦C 0.0 U
                                         1952LAb (2278) 154
                              B4=20.5
Method: from thermodynamic data; I=0 corr.
______
Pt++ oth none 25♦C 0.0 U
                                          1938LAa (2279) 155
                             B4=18
Method: from thermodynamic data; I=0 corr.
*********************
CN-
                HL Cyanide CAS 74-90-8 (230)
Cyanide;
```

```
Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
------
Pt++ EMF NaNO3 18©C 1.0M U
                                     1960GGb (2756) 156
                          B4=41.0
*******************************
               L Carbon monoxide CAS 630-08-0 (551)
Carbon monoxide;
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
      nmr non-aq 20�C 100% U T M
                                     1976GHa (2819) 157
                          K(PtA+L)=3.53
Medium: C2H2Cl4. PtA=(C6H5)((4-Me2NC6H4)3P)2.I. At 43.6 C: K(PtA+L)=2.53;
2.3 C: > 3.53
          ______
Pt++ nmr non-aq 20◊C 100% U T M
                                     1976GHa (2820) 158
                          K((PtA+L)=1.9
Medium: C2H2Cl4. PtA=Pt(II)(P(4-MeC6H4)3)2(ClC6H4).I. Data also for other
temperatures and many other substituents on the Pt.
**********************************
              H4L
                               (2191)
Hexacyanoferrate (II); Fe(II)(CN)6----
Metal Mtd Medium Temp Conc Cal Flags Lg K values
                                      Reference ExptNo
______
Pt++ sol oth/un 25♦C 1.00M U
                                     1974MKf (3602) 159
                          Ks(Pt(NH3)4L=Pt(NH3)4+L)=-6.8
                          Ks(Pten4L=Pten4+L)=-8.67
Medium: NaF
*********************************
C1-
                  Chloride
                          CAS 7647-01-0 (50)
               HL
Chloride;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values
-----
       sp NaCl
              25♦C 0.11M C I M
                                     2003CBa (5523) 160
Data for 0.105-1.0 M NaCl, pH 3.0-8.5. K(PtCl4+H20=Pt(OH)Cl3+H+Cl)=-8.85.
K=-8.97 (I=0.505), K=-9.08 (I=1.005)
Pt++ gl NaCl 37♦C 0.01M U
                                     1999KFa (5524) 161
                          K(cis-Pt(NH3)2(H20)2+C1)=4.52
                          K(cis-Pt(NH3)2(H20)Cl+Cl)=2.60
K(trans-Pt(NH3)2(H20)C1+C1)=4.40.
______
      dis oth/un 45�C 0.1M U M
                                     1994MAa (5525) 162
K(Pt(NH3)2(H20)2+L=Pt(NH3)2LH20)=4.74, K(Pt(NH3)2LH20+C1=Pt(NH3)2L2)=3.32
K(Pt(NH3)2AH2O+L=Pt(NH3)2AL)=3.82. A=inosine. Method: HPLC.
______
Pt++ sp NaClO4 25♦C 0.10M U
                                     1994SRa (5526) 163
                          K(PtAB(H20)+L=PtABL+H20)=1.95
```

```
A: C6H4.CH2.N(CH3)2; B: NC5H4.SO3-.
______
Pt++ kin non-aq 50♦C 100% U T
                                       1993DPa (5527) 164
                            Kout(Pt(trans-A)pyCl+Cl)=2.85
                            Kout(Pt(cis-A)pvCl+Cl)=2.82
Medium: DMF. Also data at 60, 70 and 80 C. A: trans-rac- or cis-meso-1,2-dia
mino-cyclohexane.
______
      sp NaCl04 25�C 1.00M U I K1=9.4 1978ELa (5528) 165
Pt++ ISE KNO3 25�C 0.10M U M
                                       1975GKa (5529) 166
                            K(Pt(NH3)2NO2+C1)=4.21 (trans)
                            K(Pt(NH3)2NO2+C1)=3.26 (cis)
______
Pt++ ISE KNO3 25¢C 0.50M U M 1974KUd (5530) 167
                            K(Pt(DMSO)(H2O)3+L)=4.89
                            K(Pt(DMSO)(H2O)2L+L)=4.22
                            K(Pt(DMSO)(H2O)L2+L)=2.55
1974KUd (5531) 168
Pt++ EMF KNO3 25♦C 0.50M U
                            K(Pt(DMSO)+L)=4.89
                            K(Pt(DMSO)L+L)=4.22
                            K(Pt(DMSO)L2+L)=2.55
Pt++ sol oth/un 25©C 1.0M U HM 1974MKf (5532) 169
                            K(Pt(NH3)4+L)=-0.15
                            K(Pt(en)2+L)=0.13
Medium: NaF. By calorimetry: DH(both)=0, DS(NH3)=-2.9 J K-12 mol-1,
DS(en)=2.5
______
Pt++ EMF NaClO4 25¢C 0.32M U T HM
                                       1973CMa (5533) 170
                            K(Pt(en)+L)=3.84
                            K(Pt(en)L+L)=2.66
DH(K1)=4.2 \text{ kJ mol}-1, DH(K2)=-16.7, K1=3.83, K2=2.63(30 \text{ C}); K1=3.86, K2=2.56(35 \text{ C})
______
Pt++ gl mixed 25♦C 70% U M
                                       1973GGf (5534) 171
                            K(Pt(C2H4)S+L)=1.82
                            K(Pt(C2H4)S(NH3)2+L)=3.24
                            K(Pt(PPh3)S(NH3)2+L)=3.17
Medium: 70% w/w acetone/H2O, 0.1 M HClO4. S=DMSO. One DMSO exchanged for Cl
______
Pt++ gl NaNO3 25◊C 0.30M U
                                       1973KSf (5535) 172
                            K(Pt(DMSO)(NH3)+2L)=3.19(cis)
                            K(PtDMSO(NH3)+2L)=4.60(trans)
Data also for Pt(DMSO)(NH2OH)
______
Pt++ nmr non-aq 29♦C 100% U IH
                                       1973RBa (5536) 173
                            K = -0.81
Medium: CHCl3. K: trans-Pt(Me2S)2Cl2=cis-Pt(Me2S)2Cl2). Data also for many
other organic substituents. Method: nmr
```

```
Pt++ gl KNO3 25♦C 1.0M U
                                         1973SAa (5537) 174
                              K(PtA+L)=1.02
                              K(PtHA+L)=1.5
                              K(PtH2A+L)=2.14
                              K(PtH3A+L)=4
H4A=EDTA. K(PtH2AL+H)=2.25, K(PtH2AL+H)=2.73, K(PtHAL+H)=3.43
                                          1972GGb (5538) 175
Pt++ gl mixed ? 70% U
                              K(Pt(PPh3)2H+L)=1.0
Medium: 70% w/w acetone/H2O, 0.1 M NH4ClO4. One acetone exchanged for Cl,
______
       EMF KNO3 ? 0.10M U
Pt++
                            Μ
                                          1971GKe (5539) 176
                              K(Pt(NH3)2A+L)=4.09(cis)
                              K(Pt(NH3)2A+L)=4.01(trans)
                              K(Pt(NH3)2AOH+H)=5.22(cis)
                              K(Pt(NH3)2AOH+H)=3.85(trans)
A=DMSO
Pt++ ISE KNO3 25©C 0.50M U
                                          1971KTf (5540) 177
                              K = 4.22
K: Pt(DMS0)Cl+Cl=trans-Pt(DMS0)Cl2(H20)2
Pt++ ISE KNO3 20©C 0.01M U
                                          1971KTg (5541) 178
                              K(Pt(DMSO)2+L)=4.74
_____
Pt++ EMF KNO3 25¢C 0.10M U
                                          1971KTi (5542) 179
                              K(Pt(DMSO)C12+C1)=2.55
                              K(Pt(C2H4)C12+C1)=2.43
______
Pt++ gl NaClO4 250C 0.10M U TI M
                                          1971PMa (5543) 180
                              K(PtA+L)=3.71
Medium: LiCl04. K=3.68(35 C)(I=0.1); K=3.60(25 C), 3.61(35 C)(I=0.32)
A=diethylenetriamine
______
Pt++
       sp KNO3 20�C 2.0M U
                                          1971STa (5544) 181
                            K4=1.89
                                          1971STa (5545) 182
Pt++ sp oth/un 20♦C var U M
                              K(PtNOC14+C1)=0.5
                              K(Pt(NO(NH3)2Cl2+Cl)=1.5
Medium: H2SO4
Pt++ sp NaClO4 25�C 0.50M U T
                              K1=5.0 B2=9.0 1970ELa (5546) 183
                              B3=11.8
                              B4=13.8
Medium: HClO4. Ion exchange also used. At 60 C: K1=4.8, B2=8.6, B3=11.3,
B4=13.0. DH(B3)=-8 kJ mol-1, DH(B4)=-12
______
       kin NaClO4 25�C 0.50M U T M
                                          1970ELa (5547) 184
```

```
K2(cis)=3.7
                           K2(trans)=3.7
                           K3(cis)=3.1
                           K3(trans)=3.2
Medium: HCl04. K(trans-Pt(H20)2L2=cis-Pt(H20)2L2)=0.08. K2(cis): Pt(H20)3L+
L=cis-Pt(H2O)2L2. Data also at 35 and 60 C
______
Pt++ EMF oth/un 25♦C 3.0M U T H
                                      1970KSa (5548) 185
                           K4=2.41
Medium: H2SO4. DH(K4)=-23.0 kJ mol-1. K4=2.38(35 C), 2.32(42 C), 2.18(50 C),
2.04(60 C). In 0.2 M H2SO4, 25 C: K4=2.20
______
Pt++ sp alc/w 25♦C 100% U
                                      1968MMc (5549) 186
                           K(Pt(C2H4)L2+L)=4.3
Medium:EtOH
Pt++ sp oth/un 0♦C dil U T H 1968PAb (5550) 187
                           K(cis-Pt(NH3)2L+L)=2.39
K=2.42 (18 to 30 C)
Pt++ kin oth/un 30♦C 0.0 U H
                                      1968PMg (5551) 188
                          K(Pt(NH3)2L+L)=3.9
DH=-5.0 kJ mol-1, DS=58.5 J K-1 mol-1
_____
Pt++ kin NaCl04 25¢C 0.50M U T H K1=1.89 1967DEa (5552) 189
K4=2.00(15 C), 1.77(35 C). DH(K4)=-19 kJ mol-1, DS=-25 J K-1 mol-1
_____
Pt++ oth NaCl04 60♦C 0.50M U K1=1.51 1967ELb (5553) 190
Method:chemical analysis. Medium:HClO4
______
                                      1967GGf (5554) 191
Pt++ ISE NaNO3 18©C 0.10M U M
                           K(cis-(NH2OCH3)2L+L)=4.20
                           K(trans-(NH2OCH3)2L+L)=3.05
                           K(cis-(NH2OH)2L+L)=3.44
                           K(trans-(NH2OH)2L+L)=2.92
______
                                      1966ELa (5555) 192
Pt++ kin NaClO4 25♦C 0.50M U
                           K4=1.89
Pt++ sp NaClO4 25�C 0.50M U
                                      1966ELb (5556) 193
                           K3=2.96
                           K4=1.87
Medium: HClO4. By anion exchange: K3=3.0
______
      sp NaClO4 25�C 0.20M U
                                      1966EMa (5557) 194
                           K(trans-PtA2(PEt3)H20+L)=3.1
Medium: HClO4. A=piperidine
-----
                       _____
Pt++ ISE KNO3 18♦C 1.0M U
                                      1966GGc (5558) 195
                           K(cis-Pt(NH3)2L+L)=2.72
```

K(trans-Pt(NH3)2L+L)=3.29 K(Pt(NH3)3+L)=3.5

			K(Pt(NH3)3+L)=3.5
Pt++ Medium:HCl	ISE NaClO4 25	es for 4 other ol	1965ATb (5559) 196 K((C2H4)PtL2+L)=2.60 efins
K4=5.98(25			1965NPa (5560) 197 K4=4.58 K(PtCl30H+H)=7.0 K4)=-22.4 kJ mol-1
		. DH(K3)=-130 kJ	1965NPa (5561) 198 K3=3.13 K(PtCl2(H20)0H+H)=6.1 K(PtCl2(OH)2+H)=8.1 mol-1.
Pt++	con oth/un 20	? ∲ C dil U	1964CZd (5562) 199 K(Pt(MeNH2)2NO2+L)=3.85
	sp oth/un 20 2504. At 25 C:	ØC .318M U T K(trans)=1.88,	1964TCb (5563) 200 K(trans-Pt(NH3)L2+L)=1.89 K(cis-Pt(NH3)L2+L)=2.96 K(cis)=2.88
Pt++	ISE oth/un 18	S�C 1.0M U M	1963GGb (5564) 201 B(cis-Pt(NH3)2L2)=29.5 B(trans-Pt(NH3)2L2)=28.4
Pt++	ISE oth/un 18	S�C 1.0M U M	1963GGc (5565) 202 B(Pt(NH3)2L2)=32.8 B(Pt(NH3)L3)=24.1 K(Pt(NH3)L2+L)=2.1 B(Pt(NH3)3L)=32.8
Pt++	oth oth/un 18	S∲C 0.10M U	1963GPa (5566) 203 K(cis-Pt(MeNH2)2L+L)=2.4 K(trans-Pt(MeNH2)2L+L)=3.7 K(cis-Pt(EtNH2)2L+L)=2.4 K(Trans-Pt(EtNH2)2L+L)=3.5
Pt++ Method: ch		.s. K=3.57(35 C).	1962AMd (5567) 204 K(Pt(NH3)3+L)=3.57 DH=0. I=0 corr.: K1=4.08
Pt++	oth KNO3 18	:•C 0.10M U	1962GSe (5568) 205 K(Pt(NO2)L2(H2O)+L)=1.80 K(PtPyL2(H2O)+L)=2.15

```
Method: chemical analysis
______
Pt++ gl NaCl 25�C 1.0M U
                                         1962PPb (5569) 206
                             +K1=10.5
                              +K2=10.0
                              +K3=9.5
                              +K4=8.7
+K1: Pt(OH)4+H+L=Pt(OH)3L+H2O; +K2: Pt(OH)3L+H+L=Pt(OH)2L2+H2O
+K3: Pt(OH)2L2+H+L=PtOHL3+H2O; K4: Pt(OH)L3+H+L=PtL4+H2O
Pt++ oth oth/un 250C 0.32M U IHM 1961ADa (5570) 207
                             K(trans-Pt(NH3)2L+L)=3.49
Method: chemical analysis. DH=-23 kJ mol-1. At I=0 corr.: K=4.09
Pt++ oth oth/un 25¢C 0.32M U T HM 1961MAh (5571) 208
                              K(cis-Pt(NH3)2+L)=3.4
                              K(PtL2+L)=3.3
                              K(PtL3+L)=1.82
                              K(cis-Pt(NH3)2L+L)=2.48
Method: chemical analysis, 0.32 M Na2SO4. K(trans-Pt(NH3)2+L)=3.66(15 C),
3.49(25 C), 3.36(35 C). K(trans-Pt(NH3)2L+L)=4.09(25 C), 3.96(35 C). DH=-25
______
                                         1961RMb (5572) 209
Pt++ oth oth/un 25♦C 0.32M U T
                              K(Pt(NH3)2+L)=3.4
                              K(Pt(NH3)2L+L)=2.48
Method: chemical analysis, medium: Na2SO4. At 35 C: 3.7, 2.41
______
Pt++
      oth NaNO3 25�C 0.32M U
                                         1961SMb (5573) 210
                             K3=3.27
                              K4=1.82
Method: chemical analysis. At I=0 corr.: K3=3.0, K4=1.52. By glass electrode
I=0.32 M NaNO3: K(PtL30H+H)=7.0, K(PtL2(H20)0H+H)=5.2, K(PtL2(OH)2+H)=8.3
______
Pt++ ISE NaNO3 18♦C 1.0M U
                                         1960GGb (5574) 211
                             B4=16.6
______
Pt++ oth KNO3 17◊C 0.10M U
                                         1960GSe (5575) 212
                              K4=1.72
                              K(Pt(NH3)L2+L)=2.1
                              K(cis-Pt(NH3)2L+L)=2.4
                              K(trans-Pt(NH3)2L+L)=3.1
Method: chemical analysis
______
Pt++ kin oth/un 25◊C 0.32M U H
                                         1958ERa (5576) 213
                             K(Pt(NH3)L2+L)=1.84
Also by chemical analysis, medium: Na2SO4. DH=-8.8 kJ mol-1.
27 C: K(Pt(NH3)L+L)=4.4
Pt++ gl NaClO4 25�C .318M U T H
                                         1955GEa (5577) 214
                             K4=1.74
```

```
K(PtL30H+H)=7.0
medium: LiClO4. K4=1.89(15 C), 1.68(30 C); DH(K4)=-21.3 J K-1 mol-1
       con oth/un 25�C dil U
                                             1929CKa (5578) 215
                                K(Pt(NH3)2NO2+L)=3.77
       con none
                 25♦C 0.0 U
                                      1929CKa (5579) 216
Pt++
                                K(tr-Pt(NH3)2(NO2(H20)+L)=3.77
******************************
                  HL Perchlorate
C104-
                                   CAS 7001-90-3 (287)
Perchlorate:
              Mtd Medium Temp Conc Cal Flags Lg K values
                                               Reference ExptNo
      cal oth/un 25�C 1.0M U HM
Pt++
                                             1973MKc (6357) 217
                                K(Pt(NH3)4+L)=0.45
                                K'(Pt(en)2+L)=0.48
Medium:NaF. DH(K)=-6.3 kJ mol-1, DS=-11.7 J K-1 mol-1. DH(K')=-5.4, DS=-8.7
******************************
FClBrI
                  HL
                                      (541)
Halides, comparative (for book data under ligand 80)
  Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
        kin NaNO3 50�C 0.04M U T
                                             1968PEa (7421) 218
                                K(Pt(diars)2+C1)=1.37
                                K(Pt(diars)2+Br)=2.60
K(C1)=1.43(20 C), 1.20(30 C). K(Br)=2.62(20 C), 2.57(30 C)
Pt++
        sp NaClO4 25�C 0.10M U I
                                             1968PSh (7422) 219
                                K(ABr2+I=ABrI+Br)=2.22
                                K(ABrI+I=AI2+Br)=1.63
A=trans-Pt(H2NOH)2. Also with Cl,I (3.37, 2.78); Cl,Br 1.29, 0.75)
______
Pt++
        sol oth/un 25�C dil U
                                             1967GDd (7423) 220
                                Ks(A(s)=A)=-2.08
A=cis-Pt(NH3)2Cl2; Ks=-2.92(trans); -2.60(cis-Pt(NH3)2Br2; -3.48(trans);
-3.02(cis-Pt(NH3)2I2); -4.00(trans). Also 10, 50 C
        sp NaClO4
                      1.0M U
                                            1967SSm (7424) 221
                                K(AC12+Br=AC1Br+C1)=1.29
                                K(AClBr+Br=ABr2+C1)=0.75
A=Pt(H2NOH)2
       sp alc/w 23¢C 100% U
                             НМ
                                             1966DPa (7425) 222
                                K(Pt(diars2+C1)=2.52
Medium: MeOH. K=3.83(Br), 5.68(I), 3.68(SCN), 1.60(N3), 1.30((NH2)2CS)
DH=0 kJ mol-1(Cl), -4.2(Br), -16(I), -9.4(SCN), 0(N3), -19.2(thiourea)
       oth NaClO4 25�C .318M U
                                             1959DMa (7426) 223
```

```
+K1=1.16
                          +K2=0.92
                          +K3=0.30
                          +K4=0.22
Method: chemical analysis. +K1: PtCl4+Br=PtCl3Br+Cl etc. PtCl3(H2O)+Cl=
PtCl4+H20)=1.74, K(PtCi2Br(H20)+Cl=PtCl3Br+H20)=1.85
______
Pt++ gl oth/un 230C 0.20M U M
                                    1956CGa (7427) 224
                          K(C2H4PtC12(H20)+NH3)=7.8
                          K(C2H4PtC12(H20)+C1)=2.5
______
                        M 1955LCb (7428) 225
Pt++ sp oth/un 25♦C 0.04M U
                        K(C2H4PtCl2OH+H)=5.0
______
Pt++ EMF NaClO4 25♦C 0.20M U
                                    1955LCb (7429) 226
                          K(C2H4PtC12(H20)+SCN) > 4.6
                          K(C2H4PtC12(H20)+NH3)=7.5
                          K(C2H4PtCl2(H20)+F) < 1
                          K(C2H4PtC12(H20)+C1)=2.52
Method: Ag electrode. Medium: HClO4. Reactions: displacement of H2O
K(C2H4PtC12(H20)+Br=C2H4PtC12Br+H20)=3.04. K(C2H4PtC12(H20)+I)=4.60
*******************************
I-
              HL
                  Iodide
                            CAS 10034-85-2 (20)
Iodide;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ sp alc/w 25♦C 100% U
                                    1994PMc (8335) 227
                         K(PtABr2+I=PtAIBr+Br)=1.99
                          K(PtAIBr+I=PtAI2+Br)=1.43
                          K(PtAC12+I=PtAIC1+C1)=2.78
                          K(PtAIC1+I=PtAI2+C1)=2.39
Medium: MeOH, 0.5 M LiClO4. K(PtAClBr+I=PtAIBr+Cl)=2.42; K(PtAClBr+I=
PtAICl+Br)=1.36. A=C6H5S.CH2.CH2.SC6H5.
______
Pt++ sp NaClO4 25♦C 0.10M U
                                    1994SRa (8336) 228
                         K(PtAB(H20)+L=PtABL+H20)=2.88
A: C6H4.CH2.N(CH3)2; B: NC5H4.SO3-.
------
     kin NaClO4 25�C 1.00M U K1=4.98
                                   1986E0a (8337) 229
______
Pt++ sp none 23♦C 0.0 U
                                    1986WEa (8338) 230
                         K(Pt(bpy)2+L)=2.6
                         K(Pt(phen)2+L)=0.85
______
Pt++ nmr non-aq 33◊C 100% U H
                                    1973RBa (8339) 231
                         K(cis-trans-PtA2L2)=-0.53
Medium: CHCl3. A=dibenzoylsulfide. DH=-8.4 kJ mol-1. Method: nmr
______
Pt++ sp KNO3 25♦C 1.0M U
                                    1973SAa (8340) 232
```

H4A=EDTA							K(PtA+L)=2.90			
 Pt++	sp	NaClO4	25 ♦ C	1.0M	U	I	K4=1.70	1967CPa	(8341)	233
At I=0.001	: K3=	=3.5								
Pt++	gl	oth/un	25 ∲ C	var	U		K(Pt(OH)4+H+L=P- K(Pt(OH)3L+H+L=I K(Pt(OH)2L2+H+L=I K(Pt(OH)L3+H+L=I	Pt(OH)2L2 =Pt(OH)L3	20)=12)=11.7	234
Pt++	ISE	oth/un	18 ∲ C	1.0M	U	M	B(Pt(NH3)2I2)=33 B(Pt(NH3)2I2)=33	3.2 (cis)	(8343) s)	235
 Pt++ *******		NaNO3		1.0M		****	B2=29.6 K(Pt+2e=Pt(s))=4 *********		mV)	
NH3 Ammonia	ጥ ጥ ጥ ጥ		L	Ammo			CAS 7664-4:			· ጥ ጥ ጥ ·
Metal	Mtd	Medium	Temp	Conc (Cal	Flag	s Lg K values	Refere	ence Exp	tNo
-	inosi		Inosir	ne. K(F	PtL2		K(PtL2=Pt(OH)L2 K(Pt(OH)L2=Pt(OH)L2 K(PtL2A=Pt(OH)L2 K(PtL2C=Pt(OH)L2 t(OH)L2HA)=5.4, A=PtL2A)=-1.7	H)2L2)=7.2 2A)=5.27	(9199) 20	237
Pt++ Medium: (NI	·	oth/un	23 ∲ C	0.03M	U		K(Pt(bpy)2+L)=3 K(Pt(phen)2+L)=2		(9200)	238
 Pt++	gl	mixed	25 � C	70%	U		K(Pt(C2H4)SC12+L K(Pt(C2H4)SL2+L K(Pt(Ph3P)SL2+L)=8.0	(9201)	239
	sp	KNO3	25 � C	1.0M	U		K(Pt(EDTA)+L)=4	1973SAa .7	(9202)	240
Pt++	•									

```
1961GGb (9204) 242
      ISE KNO3 18♦C 1.0M U
Pt++
                        B4 = 35.3
******************************
                 Hydroxylamine; CAS 5470-11-1 (1808)
             L
Hydroxylamine; NH2.OH
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl NaNO3 25♦C 0.0 U
                                  1966GSh (9273) 243
                         K(PtH-1L4+H)=6.45
                         Kso(PtL4(OH)2)=-20.05
Protonation constants for other (PtL) complexes
********************************
NO2 -
             HL Nitrite CAS 7782-77-6 (635)
Nitrite;
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
    EMF oth/un 25�C var U
                                  1967GGe (9402) 244
                        B4=19.6
********************************
             HL Azide
N3-
                           CAS 7782-79-8 (441)
Azide;
       Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ sp NaClO4 25�C 0.10M U
                                  1994SRa (10254) 245
                        K(PtAB(H20)+L=PtABL+H20)=3.50
A: C6H4.CH2.N(CH3)2; B: NC5H4.SO3-.
******************************
OH-
              HL
                 Hydroxide
                            (57)
Hydroxide;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values
______
Pt++ gl NaCl04 250C 0.10M C
                                  2001BPd (11985) 246
                        *K(Pt(dien)(H2O))=-6.94.
K(2Pt(dien)(H20)=Pt2(dien)2(OH)2)=-9.37.
Pt++
     nmr mixed 25�C 0.00 U
                                  1998BBd (11986) 247
                         *K(trans-Pt(H20)Cl(NH3)A)=-5.4
                         *K(cis-Pt(H20)2(NH3)A)=-5.68
                         *K(cis-Pt(OH)(H2O)(NH3)A)=-7.7
                         *K(cis-Pt(H20)Cl(NH3)A)=-6.73
Method: 195Pt nmr, Medium: 10% D20/H20.
A: Cyclohexylamine
Pt++ nmr NaClO4 25%C 1.00M U
                                  1998MGa (11987) 248
                         *K(Pt(H20)(CN)5)=-2.51
Method: 191Pt nmr
```

```
Pt++ gl KNO3 25♦C 0.15M C
                                           1997SSb (11988) 249
                              *B2(Pt(en)(H20)2)=-15.35
                              *K(2Pt(en)=Pt2(en)2(OH))=-8.36
Pt++ gl NaCl04 250C 0.10M M
                                          1996MOa (11989) 250
                              *K(PtC1(NH3)2(H2O))=-5.89
-----
Pt++ sp NaClO4 25♦C 0.10M U
                                          1994SRa (11990) 251
                              *K(PtAB(H20))=-9.75
A: C6H4.CH2.N(CH3)2; B: NC5H4.SO3-.
______
       sol oth/un 25♦C var M B2=29.9 1991WOa (11991) 252
Pt++ gl KNO3 350C 0.05M C M
                                          1987EGa (11992) 253
                              K(Pt(DMSO)A+L)=4.36
HA=sarcosine. Data also for HA=glycine (K=4.18) and dimethyl glyoxime
(K=4.78)
-----
Pt++ sp none 23♦C 0.0 U
                                           1986WEa (11993) 254
                              K(Pt(bpy)2+L)=4.11
                              K(Pt(phen)2+L)=2.60
-----
Pt++ sol oth/un 25♦C 1.00M U
                                           1974MKf (11994) 255
                              K(Pt(en)2 + OH)=0.38
Medium: NaF
                            1973SAa (119
*K(PtA2+H2O=PtA2OH+H)=-9.08
Pt++ gl KNO3 25♦C 1.00M U
                                          1973SAa (11995) 256
H4A=EDTA
Pt++ gl NaNO3 25¢C 0.30M U M
                                           1968GSi (11996) 257
                              *K1(Pt(en)(H2NOH)2)=-7.68
                              *K2(Pt(en)(H2NOH)2)=-10.7
Also *Kn values for Pt(II)-oxime complexes
______
Pt++ gl oth/un 25�C dil U
                                          1968PAb (11997) 258
                              *K1(cis-Pt(NH3)2(H20)2)=-5.63
                              *K2(cis-Pt(NH3)2(H20)2)=-9.25
                              *K1(tr-Pt(NH3)2(H20)2)=-4.23
                              *K2(tr-Pt(NH3)2(H20)2)=-7.30
Pt++ gl NaNO3 25♦C 0.10M U
                                          1963GGa (11998) 259
                              *K1(Pt(bpy)(H20)2)=-4.7
                              *K2(Pt(bpy)(H20)2)=-5.7
                              *K1(trans-Pt(py)2(H20)2)=-5.2
                              *K1(cis-Pt(py)2(H20)2)=-4.1
*K2(trans-Pt(py)2(H2O)2)=-6.3, *K2(cis)=-6.4. Also data for Pt(NH3)py(H2O)2)
: *K1=-5.2, *K2=-6.85(trans); *K1=-4.1, *K2=-6.7(cis) plus others
```

```
Pt++ gl NaNO3 25%C 0.10M U
                                        1962GSf (11999) 260
                             *K1=-8.66 (trans)
                             *K2=-9.72 (trans)
                             *K1=-6.92 (cis)
                             *K2=-10.15 (cis)
metal is Pt(H2NOH)2py2++
______
Pt++ gl oth/un 20◊C dil U
                                        1961GIa (12000) 261
                             *K1=-3.35 (trans)
                             *K2=-4.80 (trans)
                             *K1=-3.80 (cis)
                             *K2=-5.68 (cis)
metal is Pt(NH2C2H4OH)2(H2O)2++
Pt++ gl NaNO3 25♦C 0.10M U
                                        1961GSc (12001) 262
                             *K1=-7.5 (cis)
                             *K2=-10.2 (cis)
                             *K1=-8.84 (trans)
                             *K2=-9.8 (trans)
metal is Pt(NH3)2(NH2OH)2++
______
Pt++ gl oth/un 25♦C 0.32M U
                                   1961MAh (12002) 263
                             *K1(Pt(NH3)2(H20)C1)=-6
medium: Na2SO4.
Pt++ gl oth/un rt 0.32M U
                                        1958ERa (12003) 264
                            *K1(Pt(NH3)2(H20)Cl2)=ca.-7
medium:Na2SO4
Pt++ oth oth/un ? ? U
                                        1951GNa (12004) 265
                             K(Pt(NH3)2(SCN)2+20H)=6.55
                             K(Pt(NH3)2C12+2OH)=10
                             K(Pt(NH3)2Br2+2OH)=8.55
                             K(Pt(NH3)2I2+2OH)=6.30
K(trans-Pt(NH3)2X2+20H=trans-Pt(NH3)2(0H)2+2X)
-----
Pt++ gl oth/un 14�C dil U T
                                        1939JEa (12005) 266
                             *K1(Pt(NH3)2(H20)2)=-4.4
                             *K2=-7.20
Metal is trans-Pt(NH3)2(H2O)2. At 20 C: *K1=-4.32,*K2=-7.38. For cis-complex
*K1=-5.56, *K2=-7.32
******************************
              H2L
P205--
                                CAS 83228-42-6 (5852)
Pyrophosphite;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl none 25♦C 0.0 C
                                        1987BDb (13407) 267
                             K(Pt2(H2L)3HL+H)=2.24
                             K(Pt2(H6L4)+H)=2.24
```

```
Data also for Pt2(H2L)4X2, X=Cl,Br,I
For Cl, pK1=2.55, pK2=4.72, pK3=6.72; Br, pK1=2.62, pK2=5.10, pK3=7.21
*******************************
             H2L
                 Sulfide
                           CAS 7783-06-4 (705)
Sulfide;
         Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
Pt++ sol oth/un 200◊C var U T
                                  1993GBa (14454) 268
                        Ks(PtS+H2S)=-8.2
                        Ks(PtS+2H2S)=-11.3
Constants at I=0. 30-300 C
______
Pt++ oth none 25♦C 0 U
                                  1988LIa (14455) 269
                        Kso(PtS) = -77.4
                        *Kso(PtS)=-60.1
Derived from thermodynamic data and K(H+S=HS)=17.3.
*********************
             HL Thiocyanate CAS 463-56-9 (106)
Thiocyanate;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
     sol oth/un 25�C 1.0M U
                                  1974MKf (15234) 270
                        K(Pten2+L)=0.55
Medium: NaF
______
Pt++ cal oth/un 25�C 1.0M U H
                                  1973MKc (15235) 271
                        K(Pt(NH3)4+L)=0.04
Medium: NaF. DH(K1)=-12.6 kJ mol-1,DS=-41.4 J K-1 mol-1.
For Pt(en)2, K1=0.2(calorimetry), 0.13(solubility). DH(K1)=-10.9,DS=-34
      sp KNO3
             25♦C 1.0M U
                                  1973SAa (15236) 272
                        K(Pt(EDTA)+L)=4.64
********************************
S03--
             H2L
                Sulfite
                           CAS 7782-99-2 (801)
Sulfite;
          -----
    Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
     sp none 23♦C 0.0 U
Pt++
                                  1986WEa (15476) 273
                        K(Pt(bpy)2+L)=6.0
                        K(Pt(phen)2+L)=4.74
*******************************
                           CAS 7664-93-9 (15)
             H2L Sulfate
Sulfate;
         Metal Mtd Medium Temp Conc Cal Flags Lg K values
______
    cal oth/un 25�C 1.0M U HM
                                  1974MKf (16487) 274
```

```
K(Pt(NH3)4+L)=0.74
```

K(Pt(en)2+L)=0.69Medium: NaF. DH(Pt(NH3)4+L)=0 kJ mol-1, DS=14.2 J K-1 mol-1; DH(Pt(en)2+L)=ca.0, DS=13.0 H2L S203--Thiosulfate CAS 73686-28-7 (177) Thiosulfate; ______ Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo Pt++ sp none 23**♦**C 0.0 U 1986WEa (16897) 275 K(Pt(bpy)2+L)=6.7K(Pt(phen)2+L)=6.4****************************** H2L Se--Selenide (6335) Selenide: ______ Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo ______ oth none 25�C 0.0 U Pt++ 1964BUe (16948) 276 Kso = -81.4************************ Thiourea CAS 62-56-6 (51) Thiocarbamide, Thiourea; (H2N)2CS ______ Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo ______ Pt++ sp none 23**♦**C 0.0 U 1986WEa (17849) 277 K(Pt(bpy)2+L)=4.13K(Pt(phen)2+L)=3.15*********************** L Methylamine CAS 74-89-5 (155) Methylamine; CH3.NH2 _____ Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo ______ Pt++ sp oth/un 23**%**C 0.03M U 1986WEa (18029) 278 K(Pt(bpy)2+L)=3.18K(Pt(phen)2+L)=2.43Medium: (NHMe3)2SO4 ______ Pt++ EMF KNO3 18♦C 1.0M U 1961GGa (18030) 279 B4 = 40.1Method: platinum electrode ______ gl oth/un 23**♦**C 0.20M U M 1956CGa (18031) 280 K(C2H4PtCl3+L=trans-C2H4LPtCl2+Cl)=6.1 K(trans-C2H4H2OPtCl2+L=trans-C2H4LPtCl2+H2O)=8.6 ********************************** CAS 593-56-6 (4208) CH5N0

```
O-Methylhydroxylamine; H2N.O.CH3
  -----
       Mtd Medium Temp Conc Cal Flags Lg K values
                                       Reference ExptNo
______
       ISE NaNO3 18♦C 0.10M U
                                     1968SGe (18039) 281
                           B4 = 26.8
*********************************
                   AMPA
                              CAS 1066-51-3 (1981)
              H2L
Aminomethylphosphonic acid; H2N.CH2.PO3H2
       Mtd Medium Temp Conc Cal Flags Lg K values
                                       Reference ExptNo
______
              25♦C 0.10M C
Pt++
       gl KNO3
                           B2=21.62
                                     1997BLc (18230) 282
                           B(PdHLC12)=22.99
                           B(PdLC12)=19.45
                           B(PdH-2L)=-0.08
When [Pt]=0.15 M, [L]=0.3 M: B2=24.06, B(PtH-2L2)=2.87, B(PtHLC12)=23.70,
B(PtLC12)=20.11, B(PtH-2L)=2.19.
Pt++
              25¢C 0.10M U
       gl KCl
                                     1996BRa (18231) 283
                           K(Pt+L+2Cl+H)=22.67
                           K(Pt+2L)=22.28
                           K(Pt+L+2C1)=19.55
*******************************
                   Dithiooaxlic ac CAS 77148-96-8 (4216)
C2H2O2S2
              H2L
Dithioethanedioic acid; HS.CO.CO.SH
______
       Mtd Medium Temp Conc Cal Flags Lg K values
Pt++
       sp NaCl
               ? 0.25M U
                                     1968PMd (18407) 284
                           K(PtC14+2L=PtL2+4C1)=22.43
********************************
C2H3N3S
                              CAS 3179-31-5 (4221)
1,2,4-Triazoline-3-thione;
-----
      Mtd Medium Temp Conc Cal Flags Lg K values
                                      Reference ExptNo
-----
       sp oth/un ? 0.32M U
                                     1971RCc (19245) 285
                           B4=25.9
*******************************
                             CAS 74-85-1 (478)
C2H4
                   Ethylene
Ethene; H2C:CH2
       Mtd Medium Temp Conc Cal Flags Lg K values
                                       Reference ExptNo
______
       gl
         KN03
               ? 0.10M U
                                     1972GKe (19430) 286
K(Pt(NH3)3L+H20=Pt(NH3)2LH20+NH3)=8.67
**********************************
                   Acetaldoxime
                              CAS 107-29-9 (4224)
Acetaldoxime; CH3.CH:N.OH
```

```
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
- - -
     ISE NaNO3 28�C 0.10M U M
                                1968SGe (20671) 287
                     K(PtC12+4L)=25.0
**************************************
             L Acetamide CAS 60-35-5 (2886)
C2H5NO
Ethanoic acid amide; CH3.CO.NH2
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
                     M 1992WFa (20674) 288
Pt++ nmr non-aq 25♦C 100% U
                      K(PtA+L=PtAL)=7
Medium: acetone. A is Diethylenetriamine.
HL
                       CAS 56-40-6 (85)
                Glycine
2-Aminoethanoic acid; H2N.CH2.COOH
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl oth/un 35♦C ? U
                                1989EBa (21696) 289
                    *K(PtL(DMSO)(H2O))=-4.14
______
    gl NaClO4 25�C 0.10M U
                                1982KBa (21697) 290
                       K(PtL(en)+H)=3.18
*******************************
               DMSO
C2H60S
                         CAS 67-68-5 (329)
Dimethylsulfoxide; (CH3)2.SO
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
     gl KNO3 25♦C 0.10M U M
                                1972GKe (22120) 291
K(Pt(NH3)3L+H20=Pt(NH3)2LH20+NH3)=8.18
*********************
                         CAS 75-18-3 (151)
Dimethyl sulfide; CH3.S.CH3
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
___________
     nmr non-aq 30�C 100% U H
                                1998SEa (22193) 292
                       K(Pt2Me4L2+2L=2PtMe2L2)=3.41
Medium: dichloromethane-d2. DH=-60 kJ mol-1, DS=-120 J K-1 mol-1.
Reactant dimer has bridging SR2 groups. The product is the cis isomer.
______
     nmr non-ag 29�C 100% U HM
                                1973RBa (22194) 293
                       K(cis-PtL2Cl2=trans form)=0.81
Medium: CHCl3. DH=7.9 kJ mol-1, DS=41 J K-1 mol-1.
In CH2Cl2, K=0.28, DH=9.6, DS=38
*******************************
             L DiMeSelenide CAS 81369-92-3 (911)
C2H6Se
```

```
Dimethylselenide; CH3.Se.CH3
  -----
     Mtd Medium Temp Conc Cal Flags Lg K values
                                 Reference ExptNo
______
Pt++ nmr non-ag 40♦C 100% U T M
                                1973RBa (22206) 294
                      K(cis-PttCl2L2=trams form)>1.3
Medium: CHCl3. At 3 C, in CHCl3+30% C6H5NO2: K=0.60
*******************************
             L
                Dimethylamine CAS 124-40-3 (802)
Dimethylamine; CH3.NH.CH3
______
     Mtd Medium Temp Conc Cal Flags Lg K values
                                 Reference ExptNo
______
Pt++ sp oth/un 23♦C 0.03M U
                                1986WEa (22228) 295
                       K(Pt(bpy)2+L)=3.02
                       K(Pt(phen)2+L)=1.60
Medium: (NHMe3)2SO4
______
Pt++ gl oth/un 23♦C 0.20M U
                                1956CGa (22229) 296
                       K5=5.5
                       K6 = 8.0
***********************************
                Ethylamine CAS 75-04-7 (156)
C2H7N
Ethylamine; CH3.CH2.NH2
-----
Metal Mtd Medium Temp Conc Cal Flags Lg K values
                                 Reference ExptNo
·
Pt++ EMF KNO3 18¢C 1.0M U
B4=37.0
                                 1961GGa (22278) 297
Method: platinum electrode
************************
             L
                Ethylenediamine CAS 107-15-7 (23)
1,2-Diaminoethane; H2N.CH2.CH2.NH2
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
    sp oth/un 23♦C 0.03M U
                                 1986WEa (23225) 298
                       K(Pt(phen)2+L)=0.88
Medium: (enH)2SO4
______
     EMF KNO3 18©C 1.0M U B2=36.5
                                1961GGa (23226) 299
Method: platinum electrode
********************************
             L Propylene CAS 115-07-1 (702)
Propene; CH3.CH:CH2
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt++ nmr non-aq -15♦C 100% U
                                 1986KUa (24756) 300
                       K(PtA+L=PtL+A)=1.5
```

```
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
*******************************
                    Allyl alcohol CAS 107-18-6 (62)
Prop-2-en-1-ol; CH2:CH.CH2.OH
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
      gl oth/un ? ? U
                          М
                                        1972GIb (24848) 301
                            K(Pt(NH3)2L(OH)+H)=3.5
   sp NaCl 60�C 2.0M U T HM
                                        1967HVa (24849) 302
                            K(PtC14+L=PtC13L+C1)=3.59
K=4.11(30C), 3.86(44.5 C). DH=-33.9 kJ mol-1, DS=-31.8 J K-1 mol-1
********************************
C3H603S
                HL
                    Allylsulfonic CAS 1606-80-0 (3551)
Prop-2-enesulfonic acid; CH2:CH.CH2.SO3H
______
      Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt++ sp NaCl 25♦C 2.0M U T HM
                                        1968MVa (25613) 303
                            K(PtCl4+L=PtCl3L+Cl)=3.61
K=3.46(35 C), 3.33(45 C), 3.19(55.6 C). DH=-25.5 kJ mol-1,DS=-17.1 J K-1 m-1
******************************
                   Allylamine CAS 107-11-9 (2973)
Allylamine; H2C:CH.CH2.NH2
______
       Mtd Medium Temp Conc Cal Flags Lg K values
                                        Reference ExptNo
-----
       sp NaCl 59♦C 2.0M U T HM
                                        1967DHb (25637) 304
                            K(PtCl4+HL=PtCl3HL+Cl)=3.01
K=3.45(30.2 C), 3.24(44 C). DH=-29.7 kJ mol-1, DS=-31.8 J K-1 mol-1
Pt++
       sp oth/un 24♦C 2.0M U
                                        1967DHc (25638) 305
                            K(PtBr4+HL=PtBr3HL+Br)=2.49
Medium: KBr
*******************************
C3H7N0
                               CAS 127-06-0 (7906)
Acetoxime;
      Mtd Medium Temp Conc Cal Flags Lg K values
                                         Reference ExptNo
______
Pt++ sp non-aq 40♦C 100% C
                                        2001KKa (25642) 306
                            K(cis-Pt(en)(S)2+L)=1.54
                            K(cis-Pt(en)L(S)+L)=0.48
Medium: acetone (S). Additional methods: 1H and 13C nmr.
********************************
                   Sarcosine CAS 107-97-1 (87)
N-Methyl-2-aminoethanoic acid; CH3.NH.CH2.COOH
       Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
```

```
gl oth/un 35♦C ? U
                                   1989EBa (26607) 307
Pt++
                         *K(PtL(DMSO)(H2O))=-4.07
***********************************
             H3L
C3H8O3S3
                 Unithiol
                           CAS 74-61-3 (1271)
2,3-Dimercaptopropanesulfonic acid; HS.CH2.CH(SH).CH2.SO3H
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ sp oth/un 25¢C 1.00M U K1=3.46 19780Sb (27798) 308
*********************************
                 Trimethylamine CAS 75-50-3 (803)
              L
Trimethylamine; (CH3)3.N
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
_______
     sp oth/un 23♦C 0.60M U
                                   1986WEa (27861) 309
                         K(Pt(bpy)2+L)=0.020
                         K(Pt(phen)2+L)=-0.32
Medium: (NHMe3)2SO4
______
     gl oth/un 23♦C 0.20M U
Pt++
                                  1956CGa (27862) 310
                         K5=3.0
                         K6=5.5
*******************************
C3H9N2O4P
                           CAS 30211-73-5 (7117)
Glycylaminomethylphosphonic acid;
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
      gl KCl
             25♦C 0.10M U
                                   1996BRa (27970) 311
                       K(Pt+L+2Cl+H)=23.14
************************************
                           CAS 594-09-2 (1732)
Trimethyl phosphine; (CH3)3P
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
      gl NaNO3 25 C 1.00M C
                                   2001HTa (28055) 312
                        K(2PtL2=L2Pt(OH)2PtL2)=-4.19
**********************************
              HL
                 5-Fluorouracil CAS 51-21-8 (4277)
5-Fluoro-2,4(1H,3H)-pyrimidinedione;
-----
     Mtd Medium Temp Conc Cal Flags Lg K values
                                    Reference ExptNo
______
                                   1970GKd (28695) 313
      ISE KNO3 25♦C 0.10M U
                         B(Pt(NH3)2L2)=32.0(cis)
*******************************
C4H4N2O2
              HL
                 Uracil
                            CAS 66-22-8 (412)
```

```
2,4-Dihydroxypyrimidone, 2,4-Pyrimidinedione;
  Mtd Medium Temp Conc Cal Flags Lg K values
                                  Reference ExptNo
______
    gl NaNO3 25�C 0.10M U
                                 1989MPa (28868) 314
Pt++
                        K(Pt(NH3)2+L)=6.27
                        K(Pt(NH3)2+2L)=10.96
***********************
C4H5N30
                 Cytosine
                          CAS 71-30-7 (1096)
2-0xy-6-aminopyrimidine;
______
     Mtd Medium Temp Conc Cal Flags Lg K values
                                  Reference ExptNo
______
      gl NaNO3 25�C 0.10M U
                      М
                                 1989MPa (29415) 315
                        K(Pt(NH3)2+L)=7.93
                        K(Pt(NH3)2+2L)=13.89
*******************************
                 Me methacrylate CAS 96-33-3 (815)
Methyl propenoate; CH2:CH.CO2.CH3
 Mtd Medium Temp Conc Cal Flags Lg K values
______
Pt++
     nmr non-ag -15♦C 100% U
                                 1986KUa (29730) 316
                        K(PtA+L+PtL+A)=-3
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
______
Pt++
     sp alc/w 25♦C 100% U
                                 1974CWa (29731) 317
                        K' = -1.09
                        K''=1.95
K'=(HPt(PEt3)2NO3+L=HPt(PEt3)2L+NO3)
K"=(HPt(PEt3)2(MeOH)+L=HPt(PEt3)2L+MeOH)
C4H604S
                 Thiomalic acid
                          CAS 70-49-5 (109)
2-Mercaptosuccinic acid, 2-Sulfanyl-1,4-butanedioic acid; HOOC.CH(SH).CH2.COOH
______
    Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
Pt++ gl KCl 25♦C 0.10M C
                                 2000CCa (30359) 318
                        B(Pt2L4)=55.0
                        B(Pt2HL4)=64.6
                        B(Pt2H2L4)=72.3
                        B(Pt2H3L4)=78.5
B(Pt2H4L4)=84.0, B(Pt2H5L4)=88.6, B(Pt2H6L4)=92.9.
********************************
C4H604S2
             H4L
                          CAS 304-55-2 (3002)
meso-2,3-Dimercaptobutanedioic acid (meso-dithiotartaric acid)
                                 Reference ExptNo
    Mtd Medium Temp Conc Cal Flags Lg K values
______
    gl KCl
            25♦C 0.10M C
                                 2000CCa (30433) 319
```

```
B(Pt2HL4)=56.1
                           B(Pt2H3L4)=77.0
                           B(Pt2H4L4)=85.6
                           B(Pt2H5L4)=92.2
B(Pt2H6L4)=97.6, B(Pt2H7L4)=102.2, B(Pt2HL3)=49.6, B(Pt2H2L3)=59.1,
B(Pt2H3L3)=66.4.
***********************************
                              CAS 56-84-8 (21)
                   Aspartic acid
              H2L
Aminobutanedioic acid; H2N.CH(CH2.COOH).COOH
                                     Reference ExptNo
       Mtd Medium Temp Conc Cal Flags Lg K values
______
              25♦C 0.0 U
Pt++
      gl none
                                     1979FWa (31934) 320
                           K(PtL2+H)=4.14
                           K(PtHL2+H)=3.68
                           K(PtCl4+2HL=PtH2L2+4Cl)=13.8
********************************
                              CAS 590-18-1 (804)
cis-But-2-ene; CH3.CH:CH.CH3
   ______
       Mtd Medium Temp Conc Cal Flags Lg K values
Pt++
      nmr non-aq -15♦C 100% U
                                     1986KUa (32462) 321
                           K(PtA+L=PtL+A)=0.75
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
*************************
C4H8
                             CAS 624-64-6 (805)
trans-But-2-ene; CH3.CH:C(CH3)H
       Mtd Medium Temp Conc Cal Flags Lg K values
                                      Reference ExptNo
______
       nmr non-aq -15♦C 100% U
                                     1986KUa (32464) 322
                           K(PtA+L=PtL+A)=0.46
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
*******************************
                   Crotyl alcohol CAS 6117-91-5 (2993)
C4H80
But-2-en-1-ol; CH3.CH:CH.CH2.OH
------
      Mtd Medium Temp Conc Cal Flags Lg K values
                                       Reference ExptNo
______
       sp NaCl 60�C 2.0M U
                                     1967HVa (33184) 323
Pt++
                        K(PtCl4+L=PtCl3L+Cl)=3.48
****************
                              CAS 2878-14-0 (3571)
3-Amino-2-methylprop-1-ene; CH2:C(CH3)CH2NH2
    Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
------
Pt++
      sp NaCl 60�C 2.0M U
                                     1967DHb (33746) 324
                           K(PtCl4+HL=PtCl3HL+Cl)=0.51
```

```
**********************************
                            CAS 34375-90-1 (3568)
3-Aminobut-1-ene; CH2:CH.CH(NH2)CH3
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
      sp NaCl 60�C 2.0M U T HM
                                    1967DHb (33747) 325
Pt++
                          K(PtCl4+HL=PtCl3HL+Cl)=2.91
K=3.34(30 C), 3.11(45.3 C). DH=-28.0 kJ mol-1, DS=-29 J K-1 mol-1
*******************************
                            CAS 2524-49-4 (3569)
4-Aminobut-1-ene; CH2:CH.CH2.CH2.NH2
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ sp NaCl 60♦C 2.0M U T HM
                                    1967DHb (33748) 326
                          K(PtCl4+HL=PtCl3HL+Cl)=3.31
K=3.64(30 C), 3.48(44.5 C). DH=-21.3 kJ mol-1, DS=-0.8 J K-1 mol-1
       sp oth/un 25♦C 2.0M U
                                    1967DHc (33749) 327
Pt++
                          K(PtBr4+HL=PtBr3HL+Br)=3.08
Medium: KBr
********************************
                            CAS 56930-04-2 (3570)
trans-4-Aminobut-2-ene; CH3.CH:CH.CH2.NH2
______
      Mtd Medium Temp Conc Cal Flags Lg K values
                                     Reference ExptNo
-----
Pt++ sp NaCl 30�C 2.0M U T HM
                                    1967DHb (33757) 328
                          K(PtC14+HL=PtC13HL+C1)=2.65
K=2.48(44.5 C), 2.32(60.2 C). DH=-21.3 kJ mol-1, DS=-19 J K-1 mol-1
********************************
                  Morpholine CAS 110-91-8 (318)
Perhydro-1,4-oxazine, Tetrahydro-1,4-oxazine; C4H8NO
_____
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
------
Pt++ EMF KNO3 25@C 1.00M U
                                    1973KYb (33793) 329
                          B4=38.4
B(Pt(NH3)2L2)=36.3(cis), 37.0(trans). B(Pt(py)2L2)=35.0 (cis)
******************************
                  Dimethylglycine CAS 1118-68-9 (88)
N,N-Dimethyl-2-aminoethanoic acid; (CH3)2N.CH2.COOH
______
      Mtd Medium Temp Conc Cal Flags Lg K values
                                     Reference ExptNo
______
       gl oth/un 35♦C
                                    1989EBa (34032) 330
                          *K(PtL(DMSO)(H2O))=-3.82
*******************************
C4H9N02S
              HL
                  Methylcysteine CAS 1187-84-4 (84)
```

```
2-Amino-3-methylmercaptopropanoic acid; H2N.CH(CH2.S.CH3)COOH
-----
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl NaClO4 25♦C 0.10M C
                                     2004BSb (34105) 331
                          *K(PtL)=-3.49
                          K(PtL=PtL(OH)2+2H)=-12.29
                          K(2PtL=Pt2L2(OH)+H)=-0.06
*****************************
                            CAS 352-93-2 (4259)
Diethyl sulfide; C2H5.S.C2H5
_____
      Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
     nmr non-aq 30♦C 100% U H
                                    1998SEa (34721) 332
                          K(Pt2Me4L2+2L=2PtMe2L2)=1.70
Medium: dichloromethane-d2. DH=-40 kJ mol-1, DS=-90 J K-1 mol-1.
Reactant dimer has bridging SR2 groups. The product is the cis isomer.
**************************
                             CAS 111-40-0 (584)
C4H13N3
                  Dien
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
-----
                                     1997GCb (35811) 333
Pt++ nmr NaClO4 25©C 0.10M M
                          *K(Pt(H20)L)=-6.0
Medium: 10% (v/v) D20/H20
                      -----
Pt++
       gl oth/un 35♦C 0.18M U
                                     1987EEa (35812) 334
                          *K(PtL(H20))=-5.87
Self medium. K(PtL(OH)+PtL(H2O)=LPt(OH)PtL+H2O)=2.03.
***********************************
                  Orotic acid CAS 65-86-1 (624)
1,2,3,6-Tetrahydro-2,6-dioxo-4-pyrimidinecarboxylic acid;
-----
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl NaNO3 25◊C 0.10M U
                                     1987MPa (36119) 335
                          K(cis-Pt(NH3)2+L)=6.61
                          K(cis-Pt(NH3)2+2L)=11.59
                          K(cis-Pt(NH3)2+L2)=11.8
L2=orotic acid dimer
**********************************
               L Pyridine
                            CAS 110-86-1 (31)
Pyridine, Azine;
    Mtd Medium Temp Conc Cal Flags Lg K values
______
      sp non-aq 25♦C 100% C
                                     1997WEa (36669) 336
```

```
K(trans-PtI3A+L)=0.38
```

```
Medium: acetonitrile. A: triphenylstibine.
______
      kin alc/w 25≎C 100% U I
                                     1994BCc (36670) 337
                          K(PtACl2+L=PtALCl+Cl)=1.37
A: PhS.CH2.SPh. Medium: methanol, 0.1 M Bu4NCl04, 0.01M HCl04. Also data
for L=4-CN- (K=-0.54), 4-Me- (K=1.83), 2-Me- (K=0.91) and 2,4-DiMe-py (1.43)
______
Pt++ kin alc/w 25♦C 100% U
                                     1994PMd (36671) 338
                          K(PtAC1+L=PtAL+C1)=-0.57
Medium: 100% MeOH, 0.01 M NBu4ClO4. A: 2,6-bis(methylsulfanylmethyl)pyridine
Also data for L=4-CN-py, 4-Cl-py, 4-Me-py, 4-NH2-py, 2-Me-py, 4-CH3CO-py
______
Pt++ EMF KNO3 25&C 1.00M U
                                     1973KYb (36672) 339
                          B4=31.8
                          B(Pt(NH3)2L2)=36.0, cis & trans
                          B(Pt(NH3)3L)=34.2
                          B(Pt(NH3)L3)=32.6
*********************************
                   Thymine CAS 65-71-4 (413)
C5H6N2O2
2,4-Dihydroxy-5-methylpyrimidine; C4HN2(CH3)(OH)2
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
                        М
Pt++ gl NaNO3 25♦C 0.10M U
                                     1989MPa (37286) 340
                          K(Pt(NH3)2+L)=6.73
                          K(Pt(NH3)2+2L)=11.93
                          1987MPa (37287) 341
Pt++ gl NaNO3 370C 0.10M U
                          B(PtL(NH3)2)=5.52
                          B(PtL2(NH3)2)=9.71
*************************
C5H804S2
                             CAS 73618-85-6 (7720)
meso-2,3-Dimercaptobutanedioc acid monomethyl ester;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl KCl 25♦C 0.10M C
                                     2000CCa (38402) 342
                          B(PtH2L2)=41.1
                          B(PtH3L2)=46.9
                          B(Pt2HL3)=58.3
                          B(Pt2H3L3)=70.0
B(Pt2H4L3)=73.3.
**********************************
              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
______
Pt++ gl none 25♦C 0.0 U
                                     1979FWa (39123) 343
```

K(PtL2+H)=5.03K(PtHL2+H)=4.39

K(PtCl4+2HL=PtH2L2+4Cl)=13.0

******************************** CAS 821-09-0 (64) Pent-4-en-1-ol; CH2:CH.CH2.CH2.CH2.OH Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo sp NaCl 60�C 2.0M U 1967HVa (40146) 344 K(PtC14+L=PtC13L+C1)=3.40********************************* CAS 13822-06-5 (3608) 1-Amino-3-methylbut-2-ene; H2N.CH2.CH:C(CH3).CH3 Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo ______ 60**♦**C 2.0M U sp NaCl 1967DHb (40383) 345 K(PtCl4+HL=PtCl3HL+Cl)=0.41******************************** CAS 22537-07-1 (3609) 5-Aminopent-1-ene; CH2:CH.CH2.CH2.CH2.NH2 Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo ----sp NaCl 60♦C 2.0M U 1967HVa (40384) 346 K(PtC14+HL=PtC13HL+C1)=3.04****************************** CAS 2424-62-4 (3610) N-Ethyl-3-aminoprop-1-ene; CH3.CH2.NH.CH2.CH:CH2 ______ Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo ----sp NaCl 59�C 2.0M U T HM 1967DHb (40395) 347 K(PtCl4+HL=PtCl3HL+Cl)=2.91K=3.37(24 C),3.09(44 C). DH=-24.7 kJ mol-1, DS=-18 J K-1 mol-1 P+++ sp oth/un 35♦C 2.0M U T HM 1967DHc (40396) 348 K(PtBr4+HL=PtBr3HL+Br)=2.26Medium: KBr. K=2.70(0 C),2.38(25 C). DH=-20.1 kJ mol-1, DS=-22 J K-1 mol-1 ******************************** Piperidine CAS 110-89-4 (105) Perhydropyridine; cyclo(-CH2.CH2.CH2.NH.CH2.CH2-) C5H11N ______ Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo ______ sp oth/un 23**♦**C 0.03M U 1986WEa (40454) 349 K(Pt(bpy)2+L)=3.65K(Pt(phen)2+L)=1.63Medium: (pipH)2SO4

```
EMF KNO3 25♦C 1.00M U
Pt++
                                   1973KYb (40455) 350
                         B(Pt(NH3)2L)=36.0
                         B(Pt(NH3)2L2)=36.8(trans)
                         B(Pt(NH3)2L2)=36.7(cis)
                         B(Pt(NH3)L3)=37.4
B(PtL4)=37.9
            gl oth/un 23♦C 0.20M U
                                   1956CGa (40456) 351
                         K5=5.7
                         K6=8.2
**********************************
                            CAS 72-18-4 (43)
                 Valine
2-Amino-3-methylbutanoic acid; H2N.CH(CH(CH3)2)COOH
______
      Mtd Medium Temp Conc Cal Flags Lg K values
                                    Reference ExptNo
-----
     gl NaNO3 25�C 0.10M U
                                   1989MPa (40750) 352
                         K(Pt(NH3)2+L)=6.61
                         K(Pt(NH3)2+2L)=11.24
******************************
                 Penicillamine
C5H11N02S
             H2L
                           CAS 52-66-4 (350)
DL-2-Amino-3-mercapto-3-methylbutanoic acid; (CH3)2C(SH)CH(NH2)COOH
                                  Reference ExptNo
     Mtd Medium Temp Conc Cal Flags Lg K values
______
      kin NaClO4 30�C 0.10M C T
                                   2001SSc (41279) 353
                         Kout(Pt(en)(H20)2+L)=2.25
Ligand is DL-penicillamine. Data for 35-50 C.
*********************************
                 Nicotinic acid CAS 59-67-6 (419)
3-Pyridine-carboxylic acid; C5H4N.COOH
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
     gl KNO3 25 C 0.10M U K1=11.26 B2=20.50 1988ZMa (42684) 354
********************************
                 Picoline CAS 109-06-8 (320)
C6H7N
2-Methylpyridine; C5H4N.CH3
______
      Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ sp non-aq 25♦C 100% C
                                   1997WEa (44614) 355
                         K(trans-PtI3A+L)=0.65
Medium: acetonitrile. A: triphenylstibine.
********************************
                 gamma-Picoline CAS 108-89-4 (325)
4-Methylpyridine; C5H4N.CH3
______
      Mtd Medium Temp Conc Cal Flags Lg K values
                                    Reference ExptNo
```

```
sp non-ag 25♦C 100% C
Pt++
                                  1997WEa (44832) 356
                        K(trans-PtI3A+L)=0.86
Medium: acetonitrile. A: triphenylstibine.
*************************
                          CAS 62-53-3 (583)
                 Aniline
Aminobenzene, aniline; C6H5.NH2
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
Pt++ kin alc/w 25♦C 100% U
                                  1994PMd (44878) 357
                        K(PtACl+L=PtAL+Cl)=-1.57
Medium: 100% MeOH, 0.01 M NBu4ClO4. A: 2,6-bis(methylsulfanylmethyl)pyridine
Also data for L=morpholine (K=0.27) and piperidine (K=1.79).
******************************
             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
______
            20¢C 0.10M U K1=4.58
   gl KNO3
                                  1977CAd (45712) 358
*****************************
C6H1004S2
             H2L
                           CAS 27887-85-0 (7721)
meso-Dimercaptobutanedioc acid dimethyl ester;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
Pt++ gl KCl 25♦C 0.10M C
                                  2000CCa (48275) 359
                        B(PtH2L4)=51.9
                        B(PtH3L4)=60.8
                        B(PtH4L4)=67.4
                        B(Pt2L3)=41.4
B(Pt2HL3)=50.1, B(Pt2H2L3)=53.5.
*********************************
                           CAS 89203-64-5 (3435)
1-Pyrrolidine-1-ethanoic acid, 1-Azacyclopentane-1-ethanoic acid;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
      sp none 25♦C 0.0 U K1=9.45 B2=19.87 1974HFa (48505) 360
*******************************
             H2L
                Aminoadipic CAS 542-32-5 (1259)
2-Aminohexanedioic acid; HOOC.CH2.CH2.CH2.CH(NH2).COOH
______
                                  Reference ExptNo
     Mtd Medium Temp Conc Cal Flags Lg K values
______
Pt++ gl none 25♦C 0.0 U
                                  1979FWa (48584) 361
                        K(PtL2+H)=5.01
                        K(PtHL2+H)=4.53
                        K(PtCl4+2HL=PtH2L2+4Cl)=13.0
```

```
**********************************
C6H13N
                   MePiperidine CAS 626-67-5 (1254)
N-Methylpiperidine; C5H10N.CH3
             -----
    Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
         gl oth/un 23♦C 0.20M U
Pt++
                                     1956CGa (49810) 362
                           K5=4.3
                           K6=6.8
*************************************
                               (3665)
N,N,N-Allyltrimethylammonium cation
  al Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt++ sp NaCl 60♦C 2.0M U T HM
                                     1967DHb (50627) 363
                           K(PtC14+L=PtC13L+C1)=2.07
K=2.40(30 C),2.24(44.5 C); DH=-22.2 kJ mol-1, DS=-27.6 J K-1 mol-1
                   Isopropyl sulfi CAS 625-80-9 (5674)
2,2'-Thiodipropane, diisopropyl sulfide; (CH3)2CH-S-CH(CH3)2
      Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
      nmr non-ag 30♦C 100% U H
                                     1998SEa (51140) 364
                           K(Pt2Me4L2+2L=2PtMe2L2)=2.11
Medium: dichloromethane-d2. DH=-40 kJ mol-1, DS=-100 J K-1 mol-1.
Reactant dimer has bridging SR2 groups. The product is the cis isomer.
********************
                              CAS 554-70-1 (166)
Triethylphosphine; (C2H5)3P
______
     Mtd Medium Temp Conc Cal Flags Lg K values
-----
       gl NaNO3 25 C 1.00M C
                                     2001HTa (51548) 365
                          K(2PtL2=L2Pt(OH)2PtL2)=-3.58
******************************
                   Thioanisole CAS 100-68-5 (4414)
Methylphenylsulfide; C6H5.S.CH3
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
Pt++
      nmr non-ag 28�C 100% U HM
                                     1973RBa (56178) 366
                           K(PtL2C12, cis to tran)=0.40
Medium: CHCl3. DH=15.1 kJ mol-1, DS=59 J K-1 mol-1
********************************
                   9-Ethylguanine CAS 879-08-3 (6679)
9-Ethyl-2-amino-6-hydroxypurine;
```

```
Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
------
Pt++ gl NaNO3 250C 0.10M M
                                       1999SSb (56519) 367
                            *K(cis-Pt(NH3)2(HL)2)=-8.01
                            *K(cis-Pt(NH3)2(HL)L)=-8.66
                            *K(trans-Pt(NH3)2(HL)2)=-7.90
                            *K(trans-Pt(NH3)2(HL)L)=-8.54
*K(cis-Pt(CH3NH2)2(HL)2)=-7.92, *K(cis-Pt(CH3NH2)2(HL)L)=-8.58
*K(trans-Pt(CH3NH2)2(HL)2)=-7.99, *K(trans-Pt(CH3NH2)2(HL)L)=-8.77
**************************
                                CAS 131344-42-3 (3733)
N-Allylpyrrolidine;
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt++ sp NaCl 60�C 2.0M U
                                       1967DHb (57424) 368
                           K(PtCl4+HL=PtCl3HL+Cl)=2.81
******************************
                               CAS 3235-67-4 (3772)
Piperidine-N-ethanoic acid; C5H10N-CH2.COOH
______
      Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ sp none 25♦C 0.0 U K1=8.462 B2=17.43 1974HFa (57457) 369
*********************************
                    Aminopimelic
                               CAS 627-76-9 (1260)
2-Amino-heptanedioic acid; HOOC.(CH2)4.CH(NH2).COOH
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
------
      gl KCl
              25♦C 0.10M U
Pt++
                                       1979FWa (57502) 370
                            K(Pt(HL)2=Pt(HL)L+H)=4.75
                            K(Pt(HL)L=PtL2+H)=5.33
                            K(PtCl4+2HL=Pt(HL)2+4Cl)=13.9
********************************
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
      gl KNO3 25♦C 0.15M C
Pt++
                                       1997SSb (57812) 371
                            K(Pt(en)+L)=8.29
                            K(Pt(en)+L=Pt(en)H-1L)=-0.38
                            K(Pt(en)+H+L=Pt(en)HL)=11.25
                            K(2Pt(en)+L=Pt2(en)2H-1L)=5.74
K(2Pt(en)+L=Pt2(en)2H-2L+2H)=-2.22
CAS 4744-04-1 (3742)
N,N-Diethyl-3-aminopropene (N-allyldiethylamine); (C2H5)2N.CH2.CH:CH2
```

```
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt++ sp NaCl 59♦C 2.0M U T H
                                      1967DHb (57902) 372
                           K(PtCl4+HL=PtCl3HL+Cl)=2.59
K=2.93(30 C),2.74(45.3 C). DH=-23.4 kJ mol-1, DS=-20.9 J K-1 mol-1
             _____
Pt++ sp oth/un 25�C 2.0M U
                                      1967DHc (57903) 373
                           K(PtBr4+HL=PtBr3HL+Br)=2.10
Medium: KBr
*************************************
                              CAS 82611-22-1 (7392)
Methionyl-1-aminoethylphosphonic acid;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
                          B2=23.14 1997LBa (58204) 374
Pt++ gl KNO3 25%C 0.10M C
                           B(PtHLC12)=25.72
                           B(PtLC1)=18.81
                           B(PtH-1L)=9.79
                           B(PtH-2L)=1.41
Data are for (S,S)-isomer. B(PtH2L2)=36.68, B(PtHL2)=30.47, B(PtH-1L2)=14.58
B(PtH-2L2)=4.78. Data also for (R,S)-isomer.
-----
Pt++ gl KCl 25♦C 0.10M U
                                      1996BRa (58205) 375
                           K(Pt+2L+2H)=37.27
                           K(Pt+2L)=23.70
                           K(Pt+2L+H)=30.99
H2L: S,S-diastereoisomer
Pt++ gl KCl 25♦C 0.10M U
                                      1996BRa (58206) 376
                           K(Pt+2L+2H)=36.56
                           K(Pt+2L)=22.92
                           K(Pt+2L+H)=30.16
H2L: S,R-diastereoisomer
*******************************
                   2-Chlorostyrene CAS 2059-87-4 (814)
C8H7Cl
2-Chlorophenyl-ethene; Cl.C6H4.CH:CH2
------
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
                         1986
K(PtA+L=PtL+A)=-0.64
Pt++
      nmr non-ag -15♦C 100% U
                                      1986KUa (59085) 377
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
*******************************
               L
                   4-Chlorostyrene CAS 1073-67-2 (812)
4-Chlorophenyl-ethene; Cl.C6H4.CH:CH2
Metal Mtd Medium Temp Conc Cal Flags Lg K values
______
    nmr non-ag -15♦C 100% U
                                      1986KUa (59086) 378
```

```
K(PtA+L=PtL+A)=-0.60
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
************************
               L
                  4-Nitrostyrene CAS 5153-67-3 (813)
4-Nitrophenyl-ethene; O2N.C6H4.CH:CH2
      Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
       nmr non-aq -15♦C 100% U
                                     1986KUa (59094) 379
                           K(PtA+L=PtL+A)=-1.3
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
*******************************
                   Vinylbenzene CAS 100-42-5 (811)
C8H8
Styrene; C6H5.CH:CH2
______
    Mtd Medium Temp Conc Cal Flags Lg K values
                                       Reference ExptNo
______
      nmr non-ag -15♦C 100% U
                                     1986KUa (59254) 380
                          K(PtA+L=PtL+A)=-0.49
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
**********************************
C8H10S
                             CAS 760-92-1 (4479)
Methylthiomethylbenzene; C6H5.CH2.S.CH3
     Mtd Medium Temp Conc Cal Flags Lg K values
                                     Reference ExptNo
-----
      nmr non-aq 20�C 100% U HM
                                     1973RBa (60932) 381
                           K(PtL2Cl2, cis to trans)=0.12
Medium: CHCl3. DH=14.2 kJ mol-1, DS=50 J K-1 mol-1
In CH2Cl2, K=-0.41. DH=13.4, DS=38
*******************************
                              CAS 106941-25-7 (6693)
9-(2-(Phosphonylmethoxy)ethyl)adenine; H2O3P.CH2.O.CH2.CH2.adenine
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl NaNO3 25¢C 0.10M M
                                      2001KLa (61654) 382
                           K(Pt(dien)L+H)=6.69
                           K(Pt(dien)HL+H)=1.4
                           K'(Pt(dien)H2L+H)=0.52
K' by spectrophotometry. K(Pt(dien)H2L+Mg)=1.54, K(Pt(dien)H2L+Zn)=2.29,
K(Pt(dien)H2L+Ca)=1.29, K(Pt(dien)H2L+Ni)=1.89, K(Pt(dien)H2L+Cu)=3.33
***************
C8H1405S2
              H2L
                             CAS 4408-66-6 (8332)
Oxybis(ethylenethio)diethanoic acid;
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl KNO3 200C 0.10M U K1=3.80
                                     1977CAc (62136) 383
*********************************
```

```
C8H15N
                           CAS 7182-69-4 (3806)
N-Allylpiperidine; C5H10N-CH2.CH:CH2
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt++ sp NaCl 60�C 2.0M U
                                   1967DHb (62151) 384
                         K(PtCl4+HL=PtCl3HL+Cl)=2.64
*****************************
C8H15N02
                              (4572)
1-Azacycloheptane-1-ethanoic acid, hexamethyleneimine-ethanoic acid;
______
    Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ sp none 25¢C 0.0 U K1=9.51 B2=18.76 1974HFa (62160) 385
Famotidine CAS 76824-35-6 (6502)
N'-(Aminosulfonyl)-3-((2-(diaminomethyleneamino)-4-thiazolyl)methylthio)propanamid
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl KNO3 25�C 0.10M U
                         B2=10.31
                                   1995CCa (62275) 386
                         B(Pt3L3)=25.21
                         B(Pt3H-1L3)=21.12
                         B(Pt3H-2L3)=15.71
                         B(PtHL2)=15.74
******************************
C9H7N302S
             H2L
                  TAR
                            CAS 2246-46-0 (707)
4-(2'-Thiazolylazo)-resorcinol; C3H2NS.N:N.C6H3(OH)2
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl alc/w 25♦C 50% U
                                   1967NPb (64722) 387
                        K(?)=12
Medium: 50% MeOH, 0.1 M NaClO4
*******************************
C9H8N2
                           CAS 578-66-5 (503)
8-Aminoquinoline;
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt++ sp oth/un 25♦C 0.10M M
                                   1994ACa (64784) 388
                         K(PtLen=Pt(H-1L)en+H)=-8.64
                         K(PtLpy2=Pt(H-1L)py2+H)=-7.40
                         K(PtLA2=Pt(H-1L)A2+H)=-8.57
                         K(PtLB=Pt(H-1L)B+H)=-7.44
Medium: 0.1 M Na2SO4. A:NH3; B:piperidine. Also data for PtLA2, where A is
4Cl-py, 4Me-py, 4NH2-py, 4NMe2-py, 1,3-diaminopropane and N-tetramethvl-en.
**********************************
C9H10
                            CAS 622-97-9 (810)
```

```
4-Methylstyrene; CH3.C6H4.CH:CH2
  Mtd Medium Temp Conc Cal Flags Lg K values
______
Pt++ nmr non-ag -15♦C 100% U
                                  1986KUa (65168) 389
                        K(PtA+L=PtL+A)=-0.25
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
*****************************
                           CAS 766-90-5 (806)
cis-beta-Methylstyrene; C6H5.CH:CH.CH3
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
     nmr non-aq -15♦C 100% U
                                  1986KUa (65171) 390
                        K(PtA+L=PtL+A)=-1.6
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
**********************
                           CAS 873-66-5 (807)
trans-beta-Methylstyrene; C6H5.CH:CH.CH3
   -----
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ nmr non-aq -15♦C 100% U
                                  1986KUa (65173) 391
                        K(PtA+L=PtL+A)=-1.8
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
***********************
C9H100
              L
                 4-Vinylanisole CAS 637-69-4 (809)
4-Methoxystyrene; CH30.C6H4.CH:CH2
     Mtd Medium Temp Conc Cal Flags Lg K values
                                  Reference ExptNo
______
      nmr non-aq -15♦C 100% U
                                  1986KUa (65312) 392
                        K(PtA+L=PtL+A)=0.15
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
********************************
                 Cytidine
                           CAS 65-46-3 (2152)
C9H13N3O5
Cytidine, Cytosine-1-beta-D-ribofuranoside;
 Reference ExptNo
   Mtd Medium Temp Conc Cal Flags Lg K values
______
     sp NaClO4 25�C 0.10M U
                                  1977S0a (67078) 393
                        Keff(Pt(NH3)2+L)=3.5 at pH 6.5
*************
C9H14N3O7P
             H2L
                           CAS 1032-65-1 (5783)
Deoxycytidine-5'-monophosphoric acid;
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ nmr oth/un 25◊C 100% M
                                  19980Ra (67179) 394
                        K(Pt(NH3)2L+Cu)=<0.6
```

*K(Pt(NH3)2(HL)=-3.71 *K(Pt(NH3)2L)=-14.0

Method: 1H and 31P nmr in D20. By potentiometric titration in 0.1 M NaNO3 *K(Pt(NH3)2HL)=-3.31. (3863)As, As, As-Triethylallylarsinium cation; L+ ______ Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo ______ Pt++ sp NaCl 58�C 2.0M U T HM 1967DHb (68025) 395 K(PtCl4+L=PtCl3L+Cl)=2.96K=3.12(45 C); DH=-24.6 kJ mol-1, DS=-16.7 J K-1 mol-1 ******************************** (3862)N,N,N-Triethylallylammonium cation; Mtd Medium Temp Conc Cal Flags Lg K values ______ sp NaCl 59�C 2.0M U T H Pt++ 1967DHb (68026) 396 K(PtC14+L=PtC13L+C1)=2.05K=2.41(25 C),2.18(45 C); DH=-20.5 kJ mol-1, DS=-19.2 J K-1 mol-1 ______ 1967DHc (68027) 397 sp oth/un 25�C 2.0M U Pt++ K(PtBr4+L=PtBr3L+Br)=1.64 Medium: KBr ******************************* C9H20P+ (3864)P,P,P-Triethylallylphosphinium cation; Mtd Medium Temp Conc Cal Flags Lg K values ______ sp NaCl 59�C 2.0M U М 1967DHb (68129) 398 K(PtC14+L=PtC13L+C1)=2.70************************ C10H7N02 HL CAS 132-53-6 (2524) 2-Nitroso-1-naphthol; ______ Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo ______ gl alc/w RT 40% M K1=4.87 B2= 9.76 1993RAb (68656) 399 Medium: 40% v/v EtOH/H2O, 0.1 M NaClO4. ******************************** HL Ouinaldic acid CAS 93-10-7 (2209) Quinoline-2-carboxylic acid; ______ Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

```
gl KNO3 25%C 0.10M U K1=9.93 B2=18.26 1988ZMa (68719) 400
Pt++
                         K3 = 7.45
*********************************
             H2L
C10H7N05S
                             CAS 3682-32-4 (1812)
2-Nitroso-1-hydroxynaphthalene-4-sulfonic acid;
 -----
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt++ gl oth/un RT 0.10M M K1=5.62 B2=10.69 1993RAb (68893) 401
Medium not stated.
**********************************
                  Dipyridylamine CAS 1202-34-2 (2428)
(2,2'-Dipyridyl)amine; C5H4N.NH.C5H4N
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
Pt++ sp NaNO3 25♦C 0.10M U
                                    1998RNa (70341) 402
                        *K(Pt(CH3)L(Me2S0))=-12.1
Method: UV-vis absorption.
***********************************
C10H12N4O5
             HL
                            CAS 58-63-9 (2344)
                 Inosine
Hypoxanthine-9-beta-D-ribofuranoside;
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
• • • •
    gl NaClO4 25�C 0.10M C
                                    2004BSb (71403) 403
                          K(PtA+L)= 8.23
                          K(PtA+2L)=12.20
HA=2-amino-3-methylmercaptopropionic acid (S-methyl cysteine)
______
      oth NaClO4 25�C 0.10M U
                                    1996M0a (71404) 404
                          K(PtC1(NH3)2L+H)=7.52
Method: HPLC
***********************************
                             CAS 2039-80-7 (808)
4-Dimethylaminostyrene; (CH3)2N.C6H4.CH:CH2
______
    Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++
      nmr non-ag -15♦C 100% U
                                    1986KUa (71693) 405
                         K(PtA+L=PtL+A)=0.84
Pt = trans-PtCl2(py); A = o-methylstyrene; Medium: CDCl3
*******************************
C10H13N4O8P
             H3L
                            CAS 131-99-7 (843)
Inosine-5'-monophosphoric acid;
Metal Mtd Medium Temp Conc Cal Flags Lg K values
______
Pt++ gl NaClO4 25�C 0.10M C M
                                    2004BSb (71871) 406
```

```
K(PtA+L)= 9.61
                           K(PtA+H+L)=15.87
HA=2-amino-3-methylmercaptopropionic acid (S-methyl cysteine)
______
Pt++ cal NaCl 25♦C 0.10M U H
                                     19910Ma (71872) 407
                           Keff(Pt(phen)en+L)=2.34
Measured at pH 7-8. DH=-11.9 kJ mol-1, DS=5 J K-1 mol-1.
***************************
C10H13N5O3
                   Deoxyadenosine CAS 16373-93-6 (2153)
2'-Deoxyadenosine, Adenine deoxyriboside;
______
      Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl NaNO3 25%C 0.10M M
                                     1999SSb (71889) 408
                           *K(cis-Pt(NH3)2(H20)HL)=-5.28
                           *K(cis-Pt(NH3)2(OH)HL)=-1.7
                           *K(trans-Pt(NH3)2(H20)HL)=-4.8
                           *K(trans-Pt(NH3)2(OH)HL)=-1.7
*K(cis-Pt(NH3)2(HL)Cl)=-1.7, *K(trans-Pt(NH3)2(HL)Cl)=-1.7.
********************************
               HL
                   Deoxyguanosine CAS 961-07-9 (3911)
2-Aminopurin-6-one 9-deoxyriboside;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl NaNO3 25♦C 0.10M M
                                     1999SSb (71896) 409
                           *K(cis-Pt(NH3)2(H20)HL)=-4.91
                           *K(cis-Pt(NH3)2(OH)HL)=-8.28
                           *K(trans-Pt(NH3)2(H20)HL)=-5.6
                           *K(trans-Pt(NH3)2(OH)HL)=-8.42
*K(cis-Pt(NH3)2(HL)Cl)=-7.84, *K(trans-Pt(NH3)2(HL)Cl)=-8.24.
Pt++
       gl NaNO3 25 C 0.10M M
                                     1998SSd (71897) 410
                           K(Pt(HL)A+Mg)=1.21
                           K(Pt(HL)A+Cu)=2.60
                           K(Pt(HL)A+Zn)=1.81
H2A: deoxyguanosine monophosphoric acid.
***********************
               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
______
Pt++ sp NaClO4 25♦C 0.10M U
                                     1977S0a (71948) 411
                          Keff(Pt(NH3)2+L)=3.6 at pH 6.5
********************************
               HL Guanosine CAS 118-00-3 (1402)
2-Aminopurin-6-one-9-riboside;
______
      Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
```

```
sp NaClO4 25♦C 0.10M U
Pt++
                                       1977S0a (72016) 412
                            Keff((NH3)2Pt+L)=3.7 at pH 6.5
**********************************
                    alpha-Thymidine CAS 4449-43-8 (695)
C10H14N2O6
Thymine-2-desoxyribofuranosyl-5-methyluracil;
______
      Mtd Medium Temp Conc Cal Flags Lg K values
                                        Reference ExptNo
______
      nmr oth/un 37�C
                    ? U
                                       1989DTa (72108) 413
                            K(Pt(NH3)2+H-1L)=9.95
                            K(PtH-1(NH3)2+H-1L)=6.92
      nmr none 25�C 0.0 U
                                       1978IKa (72109) 414
Pt++
                            K(Pt(NH3)3(H20)+L)=10.4
                            K(Pt(en)(H20)2+L)=10.3
                            K(Pt(en)L(H20)+L)=7.4
******************************
C10H14N507P
               H2L
                   dGMP
                               CAS 902-04-5 (5781)
Deoxyguanosine-5'-monophosphoric acid;
______
      Mtd Medium Temp Conc Cal Flags Lg K values
                                        Reference ExptNo
______
                                       1998S0c (72514) 415
      gl NaNO3 25�C 0.10M U
                            K(MgPdL2+H)=5.75
                            K(PdL2+Mg)=1.86
                            K(PdHL2+Mg)=1.32
                            K(CuPdL2+H)=5.26
K(PdL2+Cu)=3.63, K(PdHL2+Cu)=2.60, K(ZnPdL2+H)=5.2, K(PdL2+Zn)=2.8,
K(PdHL2+Zn)=1.7.
********************************
C10H14N508P
               H3L
                    GMP-5
                               CAS 85-32-5 (2947)
Guanosine-5'-monophosphoric acid;
______
      Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
     gl NaClO4 25�C 0.10M C
Pt++
                                       2004BSb (72600) 416
                            K(PtA+L)=12.38
                            K(PtA+H+L)=18.80
                            K(PtA+2H+L)=22.27
HA=2-amino-3-methylmercaptopropionic acid (S-methyl cysteine)
Pt++
       gl NaClO4 25 C 0.10M C
                                       2004BSb (72601) 417
                            K(PtA+H+L)=15.85
                            K(PtA+2H+L)=21.25
A=2,2':6',2''-terpyridine (terpy)
*********************
C10H16N2O8
               H4L
                    EDTA
                               CAS 60-00-4 (120)
1,2-Diaminoethane-N,N,N',N'-tetraethanoic acid, Sequestric acid;
```

Metal	Mtd Mediu	m Temp Conc Cal Fl	ags Lg K values	Reference ExptNo
 Pt++ K(PtH3L+H	gl KNO3) < 0	25 ∲ C 1.0M U	K(PtLOH+H)=9.08 K(PtL+H)=2.88 K(PtHL+H)=2.18 K(PtH2L+H)=0.5	1973SOa (74106) 418
	gl KNO3		K(PtClL+H)=3.43 K(PtHClL+H)=2.7 K(PtH2ClL+H)=2. K(PtBrL+H)=3.46	3 25
K(PtHBrL+ 	H)=2.76, K(PtH2BrL+H)=2.26 		
	sp KNO3		K(PtL+Cl)=1.02 K(HPtL+Cl)=1.57 K(H2PtL+Cl)=2.1 K(H3PtL+Cl)=4.0	4
		ectrode. K(PtL+Br) H3PtL+Br)=4.5	=1.47, K(HPtL+Br)=	2.02
 Pt++	sp KNO3	25 ∲ C 1.0M U	K(PtL+I)=2.90 K(PtL+SCN)=4.64 K(PtL+NH3)=4.7	1973SOa (74109) 421
C10H16N6S			e CAS 51481-	**************************************
Metal	Mtd Mediu	m Temp Conc Cal Fl	ags Lg K values	Reference ExptNo
 Pt++	gl KNO3	25 ≎ C 0.10M U	K1=8.82 B2=1 B(PtH-1L)=1.41 B(PtH-2L)=-9.96 B(PtH-1L2)=8.60 B(PtH-2L2)=-0.4	
 Pt++	gl KNO3	25 ¢ C 0.10M C	K1=8.815 B2=1 B(PtH-1L)=1.412 B(PtH-2L)=-9.96 B(PtH-1L2)=8.60 B(PtH-2L2)=-0.4	3
C10H17N3O		H3L Glutathio	*******	*******
GIutamyI- Metal			ags Lg K values	Reference ExptNo

```
gl NaClO4 25 C 0.10M C
Pt++
                            М
                                          2004BSb (75141) 424
                              K(PtA+L)=16.63
                              K(PtA+H+L)=20.48
                              K(PtA+2H+L)=22.33
HA=2-amino-3-methylmercaptopropionic acid (S-methyl cysteine)
        gl NaClO4 25 C 0.10M C
Pt++
                            Μ
                                          2004BSb (75142) 425
                              K(PtA+2H+L)=24.90
                              K(PtA+3H+L)=28.43
A=2,2':6',2''-terpyridine (terpy)
*******************************
                                    (3901)
As, As, As-Triethylbut-3-enylarsinium cation
           L+
       Mtd Medium Temp Conc Cal Flags Lg K values
                                            Reference ExptNo
______
        sp NaCl 60♦C 2.0M U T H
                                          1967DHb (76214) 426
                              K(PtC14+L=PtC13L+C1)=3.74
K=3.95(30 C),3.85(44.8 C). DH=-13.8 kJ mol-1, DS=29 J K-1 mol-1
****************
                                    (3899)
C10H22N+
N,N,N-Triethylbut-3-enylammonium cation
       Mtd Medium Temp Conc Cal Flags Lg K values
        sp NaCl 60♦C 2.0M U T H
                                          1967DHb (76215) 427
                              K(PtC14+L=PtC13L+C1)=3.65
K=3.89(30 C),3.77(44.8 C). DH=-15.9 kJ mol-1, DS=21 J K-1 mol-1
****************************
C11H7N04
                                  CAS 122844-38-6 (8293)
                H<sub>2</sub>L
1-Hydroxy-4-nitroso-2-naphthalenecarboxylic acid;
______
       Mtd Medium Temp Conc Cal Flags Lg K values
                                            Reference ExptNo
______
                               K1=15.48 B2=28.11 1993RAb (76894) 428
        gl alc/w RT 40% M
Medium: 40% v/v EtOH/H2O, 0.1 M NaClO4.
********************************
                                  CAS 32446-26-7 (8294)
C11H7N04
3-Hydroxy-4-nitroso-2-naphthalenecarboxylic acid;
        Mtd Medium Temp Conc Cal Flags Lg K values
                                            Reference ExptNo
______
                               K1=10.46 B2=17.28 1993RAb (76902) 429
        gl alc/w
                 RT
                    40% M
Medium: 40% v/v EtOH/H2O, 0.1 M NaClO4.
***********************************
                                  CAS 86-48-6 (1129)
1-Hydroxy-2-naphthoic acid;
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Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
       gl alc/w RT 40% M
                         K1=12.22 B2=23.15 1993RAb (77017) 430
Medium: 40% v/v EtOH/H2O, 0.1 M NaClO4.
***********************
              H2L
                               CAS 92-70-6 (1130)
C11H803
2-Hydroxy-3-naphthoic acid (3-Hydroxy-2-naphthoic acid);
______
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
               RT 40% M K1=12.53 B2=24.31 1993RAb (77131) 431
       gl alc/w
Medium: 40% v/v EtOH/H2O, 0.1 M NaClO4.
************************
                               CAS 1539-42-0 (932)
C12H13N3
bis-((2-Pyridyl)methyl)-amine (Di-2-picolylamine); C5H4N.CH2NHCH2.C5H4N
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt++ gl oth/un 25♦C 0.20M M
                                      2002PAb (81290) 432
                           *K(PtL(H20))=-5.4
                           *K(PtL(OH))=-11.5
                           *K(PtLC1)=-12.3
Medium: 0.20 M CH3SO2Na. *K(PtLC1) determined by spectrophotometry.
*K(PtLCl) and *K(PtL(OH)) refer to formation of amido species.
**********************************
                                (3963)
C12H26N+
N,N,N-Tripropylallylammonium cation;
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
      sp NaCl 60�C 2.0M U
                                      1967DHb (83718) 433
                           K(PtCl4+L=PtCl3L+Cl)=2.12
*******************************
C13H22N4O3S
                   Ranitidine
                               CAS 66357-35-5 (7144)
N(2-(5-Dimethylaminomethyl)-2-furanylmethyl)thioethyl-N-methyl-2-nitro-1-ethenedia
mine:
______
      Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
_____
Pt++ gl KNO3 25♦C 0.10M U
                            K1=6.15 B2=10.55 1995CCa (86333) 434
                           B(PtH-1L)=-1.26
                           B(PtH-2L)=-10.01
                           B(PtH-1L2)=2.76
                           B(PtH-2L2)=-5.72
*******************************
                              CAS 26898-12-4 (5030)
C14H14S
Dibenzylsulfide; C6H5.CH2.S.CH2.C6H5
```

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
------
Pt++ nmr non-aq 33%C 100% U
                                         1973RBa (87705) 435
Medium: CHCl3. K(cis-PtL2I2=trans-Pt(L2I2))=0.53
DH=8.36 kJ mol-1, DS=37.6 J K-1 mol-1
______
Pt++
        nmr non-aq 36♦C 100% U
                                         1973RBa (87706) 436
Medium: CHCl3. K(cis-PtL2Br2=trans-PtL2Br2)=-0.32
DH=20.06 kJ mol-1, DS=58.5 J K-1 mol-1
       nmr non-aq 40≎C 100% U
                                         1973RBa (87707) 437
Medium: CHCl3. K(cis-PtL2Cl2=trans-PtL2Cl2)=-0.80
DH=28.00 kJ mol-1, DS=75.2 J K-1 mol-1
********************************
C14H37N7
                                CAS 298-85-5 (5606)
1,4,7,10,13,16,19-Heptaazacycloheneicosane;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt++ gl NaClO4 25♦C 0.15M C
                           М
                                         1992BBa (90918) 438
                             K(Pt(CN)4+H3L)=2.56
                             K(Pt(CN)4+H4L)=3.07
                             K(Pt(CN)4+H5L)=3.49
                             K(Pt(CN)4+H6L)=3.61
K(Pt(CN)4+H7L)=3.71
******************************
                                   (4057)
N,N,N-Tributylallylammonium cation
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
                        U 1967DHb (9
K(PtCl4+L=PtCl3L+Cl)=2.49
      sp NaCl 60�C 2.0M U
                                         1967DHb (92541) 439
********************************
C16H40N8
                                 CAS 297-11-0 (5588)
1,4,7,10,13,16,19,22-Octaazacyclotetracosane;
  Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl NaClO4 25◊C 0.15M C
                                         1992BBa (95662) 440
                             K(Pt(CN)4+H3L)=2.48
                             K(Pt(CN)4+H4L)=3.00
                             K(Pt(CN)4+H5L)=3.44
                             K(Pt(CN)4+H6L)=3.53
K(Pt(CN)4+H7L)=3.59, K(Pt(CN)4+H8L)=3.71
****************************
C18H15O3PS
                                 CAS 16704-71-5 (3365)
3-Diphenylphosphino-benzene sulfonic acid;
```

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Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
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                           K1=11.5 B2=22.60 1972CBa (97111) 441
      ISE NaClO4 25�C 1.0M U
                          K2=10.5 (trans isomer)
********************************
                              CAS 603-35-0 (621)
Triphenylphosphine; (C6H5)3P
     Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
Pt++ ISE KNO3 25♦C 0.10M U
                                      1973GGe (97146) 442
K(trans-Pt(NH3)2LC1+H20=Pt(NH3)2L(H20)+C1)=3.65
In 0.1 M NH4ClO4: K(trans-Pt(NH3)3L+H2O=Pt(NH3)2L(H2O)+NH3)=6.84
C18H45N9
                                (5838)
1,4,7,10,13,16,19,22,25-Nonaazacycloheptacosane;
-----
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pt++ gl NaClO4 25�C 0.15M C
                                      1992BBa (98972) 443
                           K(Pt(CN)4+H4L)=3.00
                           K(Pt(CN)4+H5L)=3.53
                           K(Pt(CN)4+H6L)=3.80
                           K(Pt(CN)4+H7L)=3.83
K(Pt(CN)4+H8L)=4.17
******************************
                              CAS 862-28-2 (5839)
1,4,7,10,13,16,19,22,25,28-Decaazacyclotriacontane;
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
______
Pt++ gl NaClO4 25�C 0.15M C
                                      1992BBa (101004) 444
                           K(Pt(CN)4+H4L)=2.69
                           K(Pt(CN)4+H5L)=2.77
                           K(Pt(CN)4+H6L)=3.14
                           K(Pt(CN)4+H7L)=3.36
K(Pt(CN)4+H8L)=3.44, K(Pt(CN)4+H9L)=3.83
*************************
                          CAS 1239-45-8 (6873)
                   Ethidium
3,8-Diamino-5-ethyl-6-phenylphenanthridium;
______
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----
      sp alc/w 25�C 100% U HM
                                      1993RBa (101147) 445
                           K=1.41
Medium: MeOH. T.-50 to 50 C. K:cis-[PtAB2(N3-(H-1L))]+HC=cis-[PtAB2(N3-L)]+C
A:Cl. B:NH3. HC:CH3COOH. DH=-57.3 kJ mol-1; DS=-165. Also data for trans-
********************************
                               CAS 73487-00-0 (5937)
N,N,N',N'-Tetrabutyl-3,6-dioxaoctanedithioamide; ((C4H9)2N.CS.CH2.0.CH2-)2
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Mtd Medium Temp Conc Cal Flags Lg K values
                                                         Reference ExptNo
                             ? U
         nmr oth/un ?
                                                       1983HPa (102409) 446
                                       K(PtLC12+I=PtLC1I+C1)=0.23
                                       k(PtLCl2+Br=PtLClBr+Cl)=0.241
                                       K(PtLClBr+Br=PtLBr2+Cl)=0.056
Medium: CD3CN
*******************************
                                            CAS 60464-68-8 (5836)
1,4,7,10,13,16,19,22,25,28,31-Undecaazacyclotritriacontane;
______
         Mtd Medium Temp Conc Cal Flags Lg K values
                                                         Reference ExptNo
______
Pt++ gl NaClO4 25♦C 0.15M C
                                                       1992BBa (102511) 447
                                       K(Pt(CN)4+H4L)=3.17
                                       K(Pt(CN)4+H5L)=3.60
                                       K(Pt(CN)4+H6L)=4.71
                                       K(Pt(CN)4+H7L)=5.46
K(Pt(CN)4+H8L)=5.83, K(Pt(CN)4+H9L)=6.09, K(Pt(CN)4+H10L)=6.67
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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 :-
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END Experiments recorded for

from SC-Database on Saturday, 01 January, 2000 at 00:53:24