START Experiments recorded for
    from SC-Database on Saturday, 01 January, 2000 at 00:58:19
Software version = 5.81 Data version = 4.62
Experiment list contains 74 experiments for
 (no ligands specified)
 3 metals : Ir(IV), Ir+, Ir+++
 (no references specified)
 (no experimental details specified)

****

e- HL Electron (442)
Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ir(IV)	vlt	NaClO4	25°C	1.00M	U		1971JPa (598)	1
							K(Ir++++ + e)=21.5(1.27V)		
Medium: HClO4; also data in 0.18 M H2SO4 and 0.3 M H3PO4									
Ir(IV)	vlt	NaClO4	25°C	0.10M	U	I	1971JPa (599)	2
							K(IrCl6-- + e)=15.20(899mV)		
K(IrBr6-- + e)=14.17(838mV). Background 0 (corr), K=13.61(805mV)									
Ir(IV)	EMF	oth/un	25°C	0.40M	U		1967EBa (600)	3
							K=22.0, 1300 mV		
							K'=20.6, 1220 mV		
Medium: 0.4 M HClO4. K: 1,2,3,IrCl3(H2O)3+ + e = 1,2,3,IrCl3(H2O)3 K': trans-IrCl4(H2O)2 + e = trans-IrCl4(H2O)2-									
Ir(IV)	EMF	KNO3	25°C	0.20M	U	H	1965CGb (601)	4
							K(IrCl5+e)=17, 1000 mV		
							K(IrCl4+e)=20, 1200 mV		
Medium: 0.2 M HNO3									
Ir(IV)	EMF	NaCl	25°C	1.00M	U	I	1964KPa (602)	5
							K(IrCl6+e)=15.77, 933 mV		
In 1 M HCl, K=15.76, 932 mV									
Ir(IV)	EMF	none	25°C	0.00	U		1957GHa (603)	6
							K(IrCl6-- + e)=14.65(866.5mV)		
Ir(IV)	oth	none	25°C	0.0	U		1952LAb (604)	7
							K=62.6(930 mV)		
K: IrO2(s)+4H+4e=Ir(s)+2H2O. From thermodynamic data. K(Ir(IV)Cl6+4e=Ir(s)+6Cl)=56.4(835 mV)									
Ir(IV)	EMF	none	20°C	0.0	U		1947DMa (605)	8
							K=17.0(990 mV)		
K: Ir(IV)Br6+e=Ir(III)Br6									

```
Ir(IV)     EMF oth/un 25°C  1.0M U                        1945PIa   (606)   9
                                        K=16.0(947 mV)
Medium: NaBr. K: Ir(IV)Br6+e=Ir(III)Br6
-------------------------------------------------------------------------------
Ir(IV)     EMF oth/un 25°C  1.0M U                        1945PIa   (607)  10
                                        K=8.2(485 mV)
Medium: KI. K:IrI6+e=Ir(III)I6
-------------------------------------------------------------------------------
Ir(IV)     EMF none   20°C  0.0  U                        1944DMa   (608)  11
                                        K(IrCl6+e)=17.49, 1017 mV
-------------------------------------------------------------------------------
Ir(IV)     EMF NaCl   25°C 0.50M U  I                     1942GSa   (609)  12
                                        K=16.52(977 mV)
K: Ir(IV)Cl6+e=Ir(III)Cl6. I=2.0 M:K=16.67(986 mV), I=0.01 M:K=16.45(973 mV)
-------------------------------------------------------------------------------
Ir(IV)     EMF KCl    25°C  1.0M U T                      1931WOa   (610)  13
                                        K=17.36(1026.4 mV)
Medium: HCl. K: Ir(IV)Cl6+e=Ir(III)Cl6. 20 C: K=17.74(1031.3 mV)
*******************************************************************************
Br-                    HL    Bromide          CAS 10035-10-6  (19)
Bromide;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Ir(IV)     EMF NaClO4 25°C 0.10M U                        1971KTh  (2066)  14
                                        K(Ba+IrL6)=2.3
                                        K(Cd+IrL6)=1.6
Medium: HClO4
*******************************************************************************
FClBrI                 HL                        (541)
Halides, comparative (for book data under ligand 80)
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Ir(IV)     sp  oth/un 100°C conc  U                       1965BPf  (7407)  15
                                        K(IrCl6+Br=IrCl5Br+Cl)=0.90
                                        K(IrCl5Br+Br)=0.74
                                        K(IrCl4Br2+Br)=0.52
                                        K(IrCl3Br3+Br)=0.29
*******************************************************************************
OH-                    HL    Hydroxide          (57)
Hydroxide;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Ir(IV)     kin NaClO4 20°C 2.06M U                        1976TZa (11653)  16
                                        K(Ir(H2O)5OH+H=Ir(H2O)6)=0.40
Ion exchange also used
-------------------------------------------------------------------------------
Ir(IV)     kin oth/un 25°C 0.10M U                        1971KSe (11654)  17
```

B1'=7.08
B2'=6.45
B3'=6.04
B4'=5.18
Bn': IrCl(7-n)(OH)n-1 + OH = IrCl(6-n)(OH)n + Cl
****
SO4-- H2L Sulfate CAS 7664-93-9 (15)
Sulfate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Ir(IV) kin oth/un 20°C 2.40M U 1979TZa (16265) 18
K(Ir(H2O)5(HSO4))=0.92
K(Ir(H2O)4(HSO4)2)=0.15
****
H2 L Hydrogen (6864)
Dihydrogen;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Ir+ cal non-aq ??? 100% U HM 1993BSb (7517) 19
Medium: Cyclohexane. DH(IrABC2+L=IrLABC2)=-100.4 kJ mol-1
A:Cl. B:CO. C:Triphenylphosphine.
****
I- HL Iodide CAS 10034-85-2 (20)
Iodide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Ir+ sp non-aq ? 100% U I M 1972FOa (8185) 20
K=3.7
Medium: 1,2-dichloroethane. K: Ir(CO)2Cl2+2L=Ir(CO)2L2+2Cl). K=2.6(MeCN;
K=1.3(90% MeCN/H2O). Other equilibria reported
****
CHO3F3S HL CAS 1493-13-6 (6755)
Trifluoromethanesulfonic acid; CF3SO3H

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Ir+ cal non-aq 25°C 100% U HM 1991SZa (17465) 21
Medium: C2H4Cl2. DH(Ir(CO)AB+HL=(Ir(CO)ABH)L(ion pair)=-122.2 kJ mol-1
A=P(p-ClC6H4)3. B=C5H5. Data also for other complexes

Ir+ cal non-aq 25°C 100% U HM 1991SZa (17466) 22
Medium: C2H4Cl2. DH(Ir(CO)2A+HL=(Ir(CO)2AH)L(ion pair)=-89.5 kJ mol-1
A=C5H5 Data also for complexes with phosphine substituents
****
C5H6 HL Cyclopentadiene CAS 542-92-7 (4288)
Cyclopentadiene; cyclo(-CH:CH.CH2.CH:CH-)

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Ir+        cal non-aq 25°C 100%  U   HM                  1991SAa (37077)  23
Medium:1,2-Dichloroethane. DH(IrLA+CF3SO3)=-95.4 kJ mol-1
A:1,5-Cyclooctadiene. Data also for methyl substituted cyclopentadienes
*************************************************************************
C6H16Si                 L                        (6829)
Triethylsilane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Ir+        nmr non-aq 20°C 100%  U T HM                 1992HBa (51797)  24
                                        K(A2TaBIr(CO)2+L)=2.88
Method:NMR. Medium:toluene. K=4.01(-20C);3.69(0);2.32(40);1.80(60);1.63(70).
A:C5H5. B:CH2.CH2. DH=-46.9 kJ mol-1; DS=-105. Deuterated ligand K=3.04
*************************************************************************
C9H21P                  L                     CAS 6476-36-4  (168)
Tri-isopropylphosphine; ((CH3)2CH)3P
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Ir+        sp  non-aq 80°C 100%  U    M                 1969SMl (68227)  25
                                        K(H2(soln)+Ir(CO)ClL2)=2.79
                                        K(H2(soln)+Ir(CO)BrL2)=3.21
                                        K(H2(soln)+Ir(CO)IL2)=4.23
Medium: Toluene
*************************************************************************
C12H8N2                 L    Phenanthroline   CAS 66-71-7  (144)
1,10-Phenanthroline;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Ir+        sp  oth/un 25°C    u  U    M                 1982HLb (80471)  26
                                        K(IrCl(COD)(4-Pic)+L)=1.55
*************************************************************************
C18H15P                 L                     CAS 603-35-0  (621)
Triphenylphosphine; (C6H5)3P
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Ir+        sp  non-aq 80°C 100%  U    M                 1969SMl (97140)  27
                                        K(H2(soln)+Ir(CO)ClL2)=2.22
                                        K(H2(soln)+Ir(CO)BrL2)=3.79
                                        K(H2(soln)+Ir(CO)IL2)=3.68
Medium: Toluene
*************************************************************************
C18H33P                 L                     CAS 2622-14-2  (169)
Tri-(cyclohexyl)phosphine; (C6H11)3P
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
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------------------------------------------------------------------------------
Ir+        sp  non-aq 80°C 100%  U    M                 1969SMl (98313)  28
                                       K(H2(soln)+Ir(CO)ClL2)=1.98
                                       K(H2(soln)+Ir(CO)BrL2)=3.06
                                       K(H2(soln)+Ir(CO)IL2)=2.49
Medium: Toluene
******************************************************************************
C21H21P                 L                     CAS 6163-58-2  (600)
Tri(2-methylphenyl)phosphine (or 4-methyl where indicated); (CH3.C6H4)3P
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Ir+        sp  non-aq 80°C 100%  U                      1969SMl (101192)  29
                                       K(H2(soln)+Ir(CO)ClL2)=2.43
Medium: Toluene. Ligand: tri(4-methylphenyl)phosphine
******************************************************************************
e-                      HL    Electron           (442)
Electron;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Ir+++      oth none   25°C  0.0  U                      1968GHa   (611)  30
                                       K(IrCl6+3e=Ir(s)+6Cl)=43.6
Method:Literature evaluated data.
******************************************************************************
Br-                     HL    Bromide          CAS 10035-10-6  (19)
Bromide;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Ir+++      sol oth/un 25°C  0.1M C T                    1984ISd  (2067)  31
                                       Kout(Ir(phen)3+L)=0.91
                                       Kout(Ir(phen)3+2L)=1.52
Medium: NaF;for I=0.25M K1out=0.92; I=0.5 K1out=0.78;B2out=1.17;B3out=1.56
I=0.75 K1out=0.80; B2out=1.10; B3out=1.32
------------------------------------------------------------------------------
Ir+++      kin oth/un 90°C  var  U                      1972BGc  (2068)  32
                                       K(trans-Ir(en)2Cl2+L)=1.9
------------------------------------------------------------------------------
Ir+++      EMF NaClO4 25°C 0.10M U                      1971KTh  (2069)  33
                                       K(Ba+IrL6)=2.78
                                       K(Cd+IrL6)=2.9
Medium: HClO4
******************************************************************************
CO                      L    Carbon monoxide  CAS 630-08-0  (551)
Carbon monoxide;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Ir+++      sp  non-aq 25°C 100%  U    M                 1989KCb  (2810)  34
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                                        K(IrA+L)=5.0
A=octaethylporphyrin(C3H7). Medium: benzene
********************************************************************************
CO3--                 H2L    Carbonate        CAS 465-79-6  (268)
Carbonate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Ir+++      kin NaClO4 25°C  2.0M C                         2000KYb  (3250)  35
                                        *K(Ir(NH3)5HCO3)=-6.17
*K is for loss of proton from HCO3-.
--------------------------------------------------------------------------------
Ir+++      sp  NaClO4 25°C 0.10M U                         1976MPd  (3251)  36
                                        Kout[Ir(en)3+L]=0.3
for I=0.5 M Kout=0.1
********************************************************************************
Cl-                    HL    Chloride         CAS 7647-01-0  (50)
Chloride;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Ir+++      sol oth/un 25°C  0.0  U  I                      1989GPa  (5106)  37
                                        Kout(cis-Ir(phen)2Cl2+Cl)=3.26
Medium: NaF.  Also Kout=3.28 (I=0.1 M NaF), 2.76 (I=0.25 M),
2.54 (I=0.50 M), 2.50 (I=0.75 M).
--------------------------------------------------------------------------------
Ir+++      sol oth/un 25°C  0.1M C T                       1984ISd  (5107)  38
                                        Kout(Ir(phen)3+L)=0.84
                                        Kout(Ir(phen)3+2L)=1.34
Medium: NaF;for I=0.25M K1out=0.83; I=0.5 K1out=0.74;B2out=1.06;B3out=1.13
I=0.75 K1out=0.77; B2out=0.67; B3out=1.13
--------------------------------------------------------------------------------
Ir+++      EMF NaClO4 30°C 0.10M U T HM                    1973KTc  (5108)  39
                                        K(Ba+IrCl6)=-2.19
Medium: HClO4; DH=21 kJ mol-1. K=-2.16(35 C), -2.06(42 C), -1.98(50 C)
--------------------------------------------------------------------------------
Ir+++      EMF NaClO4 42°C  3.0M U T  M                    1973LKa  (5109)  40
                                        K(K+IrCl6)=-0.34
Medium: LiCl. K=-0.11(50 C)
--------------------------------------------------------------------------------
Ir+++      kin NaCl   90°C  var  U                         1972BGc  (5110)  41
                                        K(trans-Ir(en)2+Cl)=1.4
--------------------------------------------------------------------------------
Ir+++      kin oth/un 35°C  1.0M U TI                      1970KTb  (5111)  42
                                        K6=-1.37
Medium: 1 M HClO4. K6=-1.29(42 C), -1.22(50 C), -1.13(60 C)
In 3M HClO4: K6=-0.72(35 C), -0.68(42 C), -0.64(50 C), -0.59(60 C)
--------------------------------------------------------------------------------
Ir+++      kin NaClO4 25°C 1.03M U   H                     1969DDb  (5112)  43
                                        K6=-1.08
```

Medium: HClO4. DS(K6)=-20.5 J K-1 mol-1

Ir+++ kin NaClO4 45°C 3.70M U TI 1965CGb (5113) 44
K5=0.67
Medium: Na,HClO4. At I=2.2 M: K5=0.55(50 C)

Ir+++ gl oth/un 25°C var U 1965CGb (5114) 45
K(IrCl4(H2O)OH+H)=8.5, 10.1

Ir+++ sp NaClO4 50°C 2.20M U I 1962PGa (5115) 46
K6=-0.9
K6=-0.4 (I=3.7).

****

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

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

---

Ir+++ sol oth/un 25°C 0.1M C T 1984ISd (6251) 47
Kout(Ir(phen)3+L)=1.21
Kout(Ir(phen)3+2L)=2.36
Medium: NaF;for I=0.25M K1out=1.22; I=0.5 K1out=1.27;B2out=1.61;B3out=2.50
I=0.75 K1out=1.16; B2out=1.47; B3out=2.24

****

H2 L Hydrogen (6864)
Dihydrogen;

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

---

Ir+++ nmr non-aq 20°C 100% U T HM 1994HGa (7518) 48
Method: NMR. Medium: Toluene-d8. T:-10 to 20C. K: IrA2BC2+L. A:H, B:Cl,
C:PtBu2Me. DH=-28.5 kJ mol-1; DS=-80.3. Data also for D2 complexes

****

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

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

---

Ir+++ sol oth/un 25°C 0.1M C T 1984ISd (8186) 49
Kout(Ir(phen)3+L)=0.98
Kout(Ir(phen)3+2L)=1.66
Medium: NaF;for I=0.25M K1out=0.98; I=0.5 K1out=1.1;B2out=1.95;B3out=1.96
I=0.75 K1out=1.22; B2out=1.59

****

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

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

---

Ir+++ sol R4N.X 25°C 1.00M U 1995MPa (9171) 50

```
                                        Kout(Ir(NH3)6+L)=1.09
Medium: NH4ClO4
-------------------------------------------------------------------------------
Ir+++      gl  NaClO4 25°C 1.00M C   H                  1992GMb  (9172)  51
                                        *K(trans-IrL4(H2O)2)=-5.214
                                        *K(trans-IrL4(OH)(H2O))=-8.052
                                        *K(trans-IrL4(H2O)Cl)=-6.532
DH(*K(trans-IrL4(H2O)2))=44.6 kJ mol-1; DH(*K(trans-IrL4(H2O)Cl))=43.4.
DH(*K(trans-IrL4(OH)(H2O))=46.1 kJ mol-1.
-------------------------------------------------------------------------------
Ir+++      sp  NaClO4 25°C 1.00M C T H                1992GSb  (9173)  52
                                        *K(cis-IrL4(H2O)2)=-6.265
                                        *K(cis-IrL4(OH)(H2O))=-8.088
                                        *K(trans-IrL4(H2O)2)=-5.214
                                        *K(trans-IrL4(OH)(H2O))=-8.052
K(Ir2L8(OH)2+H2O=Ir2L8(OH)2(H2O)) = 0.52
*K(Ir2L8(OH)(H2O)2)=-3.115;  *K(Ir2L8(OH)2(H2O))=-9.012
*******************************************************************************
NO2-                    HL    Nitrite          CAS 7782-77-6  (635)
Nitrite;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Ir+++      kin oth/un 90°C  var  U                      1972BGc  (9383)  53
                                        K(Ir(en)2Cl2+L)=2.3
*******************************************************************************
N3-                     HL    Azide            CAS 7782-79-8  (441)
Azide;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Ir+++      kin oth/un 22°C  var  U                      1972LMa (10238)  54
                                        K(Ir(NH3)5L+H)=2.1
*******************************************************************************
OH-                     HL    Hydroxide          (57)
Hydroxide;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Ir+++      gl  NaClO4 25°C  1.0M C T                   1990GHa (11655)  55
                                        *K(Ir(NH3)5H2O)=-6.716
At 40 C, *K=-6.323
-------------------------------------------------------------------------------
Ir+++      gl  NaClO4 25°C 1.05M U T H                1979GBa (11656)  56
                                        *K1=-4.37
                                        *K2=-5.20
                                        *Kso=10.22
-------------------------------------------------------------------------------
Ir+++      gl  oth/un ?25   dil  U                    1959GVa (11657)  57
                                        *K1(Ir(en)3) < -12
```

```
--------------------------------------------------------------------------------
Ir+++      gl  oth/un  rt   var  U                        1957JOa (11658)  58
                                        *K1(IrCl5(H2O)=-10.1
                                        *K1(cis-Ir(py)2Cl3H2O)=-6.7
                                        *K1(trans-Irpy2(NH3)3H2O)=-5.1
********************************************************************************
S--                    H2L    Sulfide          CAS 7783-06-4  (705)
Sulfide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Ir+++      oth none   25°C    0  U                        1988LIa (14405)  59
                                        Kso(Ir2S3)=-196.3
                                        *Kso(Ir2S3)=-144.4
Derived from thermodynamic data and K(H+S=HS)=17.3.
********************************************************************************
SO3--                  H2L    Sulfite          CAS 7782-99-2  (801)
Sulfite;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Ir+++      sp  NaClO4 25°C 0.10M U                         1976MPd (15464)  60
                                        Kout[Ir(en)3+L]=0.32
for I=0.5 M Kout=0.10
********************************************************************************
SO4--                  H2L    Sulfate          CAS 7664-93-9  (15)
Sulfate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Ir+++      sp  NaClO4 25°C 0.10M U                         1976MPd (16266)  61
                                        Kout[Ir(en)3+L]=0.26
for I=0.5 M Kout=-0.09
********************************************************************************
S2O3--                 H2L    Thiosulfate      CAS 73686-28-7  (177)
Thiosulfate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Ir+++      sp  NaClO4 25°C 0.10M U                         1976MPd (16861)  62
                                        Kout[Ir(en)3+L]=0.33
for I=0.5 M Kout=0.13
********************************************************************************
SeO3--                 H2L    Selenite         CAS 7783-00-8  (2391)
Selenite;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Ir+++      sp  NaClO4 25°C 0.10M U                         1976MPd (17065)  63
                                        Kout[Ir(en)3+L]=0.30
```

for I=0.5 M Kout=0.01
****
TeO3-- H2L Tellurite CAS 10049-23-7 (1165)
Tellurate(IV)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Ir+++ sp NaClO4 25°C 0.10M U 1976MPd (17283) 64
  Kout[Ir(en)3+L]=0.28
for I=0.5 M Kout=-0.03
****
CH2O2 HL Formic acid CAS 64-18-6 (37)
Methanoic acid; H.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Ir+++ sol oth/un 25°C 0.0 U I 1989GPa (17619) 65
  Kout(cis-Ir(phen)2Cl2+L)=0.93
Medium: NaF. Also Kout=0.66 (I=0.1 M NaF), 0.23 (I=0.25 M),
0.14 (I=0.50 M).
****
C2H4O2 HL Acetic acid CAS 64-19-7 (36)
Ethanoic acid; CH3.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Ir+++ sol oth/un 25°C 0.0 U I 1989GPa (20010) 66
  Kout(cis-Ir(phen)2Cl2+L)=1.67
Medium: NaF. Also Kout=1.38 (I=0.1 M NaF), 1.01 (I=0.25 M),
0.60 (I=0.50 M), 0.36 (I=0.75 M).
****
C2H6OS L DMSO CAS 67-68-5 (329)
Dimethylsulfoxide; (CH3)2.SO

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Ir+++ sp non-aq 25°C 100% U M 1989KCb (22102) 67
  K(IrA+L)=3.8
A=octaethylporphyrin(C3H7). Medium: benzene
****
C4H6N2 L N-Me-Imidazole CAS 616-47-7 (354)
N-Methyl-1,3-diazole; C3H3N2.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Ir+++ sp non-aq 25°C 100% U M 1989KCb (29601) 68
  K(IrA+L)=5.6
A=octaethylporphyrin(C3H7). Medium: benzene
****
C5H5N L Pyridine CAS 110-86-1 (31)

Pyridine, Azine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ir+++	sp	non-aq	25°C	100%	U	M		1989KCb (36647)	69
							K(IrA+L)=4.8		

A=octaethylporphyrin(C3H7). Medium: benzene

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C5H6 HL Cyclopentadiene CAS 542-92-7 (4288)
Cyclopentadiene; cyclo(-CH:CH.CH2.CH:CH-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ir+++	sp	NaClO4	25°C	0.20M	C	M		1999CEa (37078)	70
							*K(IrL(H2O)3)=-3.86		
							K(2IrL(OH)=(IrL)2(u-OH)3)=-1.6		
							K(IrL+Cl)=2.7		
							K(IrL+Br)=3.5		

K(IrL(py)+py)=4.9, K(IrL(dms)+dms)=>6, K(IrL(tu)+tu)=>6.
dms: dimethylsulfide; tu: thiourea.

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C6H15N L Triethylamine CAS 121-44-8 (1340)
N,N,N-Triethylamine; (C2H5)3N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ir+++	sp	non-aq	25°C	100%	U	M		1989KCb (51179)	71
							K(IrA+L)=1.6		

A=octaethylporphyrin(C3H7). Medium: benzene

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C6H15O3P L CAS 122-52-1 (1723)
Triethylphosphite; (C2H5O)3P

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ir+++	sp	non-aq	25°C	100%	U	M		1989KCb (51513)	72
							K(IrA+L)=8.2		

A=octaethylporphyrin(C3H7). Medium: benzene

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C7H7NO L Benzamide CAS 55-21-0 (2328)
Benzamide; C6H5.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ir+++	sp	NaClO4	25°C	1.0M	U			1975ZFa (55149)	73
							K(Ir(NH3)5+H-1L)=2.4		

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C18H15P L CAS 603-35-0 (621)
Triphenylphosphine; (C6H5)3P

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Ir+++	sp	non-aq	25°C	100%	U	M	K(IrA+L)=6.1	1989KCb (97141)	74

A=octaethylporphyrin(C3H7). Medium: benzene

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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

END Experiments recorded for
from SC-Database on Saturday, 01 January, 2000 at 00:58:19