
Equilibrium constants for hydrolysis and associated equilibria in critical compilations

Iridium

Equilibrium reactions	lgK at infinite dilution and $T = 298\text{ K}$
	Brown and Ekberg, 2016
$\text{Ir}^{3+} + \text{H}_2\text{O} \rightleftharpoons \text{Ir}(\text{OH})^{2+} + \text{H}^+$	-3.77 ± 0.10
$\text{Ir}^{3+} + 2\text{H}_2\text{O} \rightleftharpoons \text{Ir}(\text{OH})_2^+ + 2\text{H}^+$	-8.46 ± 0.20
$\text{Ir}(\text{OH})_3(\text{s}) + 3\text{H}^+ \rightleftharpoons \text{Ir}^{3+} + 3\text{H}_2\text{O}$	8.88 ± 0.20

P.L. Brown and C. Ekberg, Hydrolysis of Metal Ions. Wiley, 2016, pp. 736–739.

Distribution diagrams

These diagrams have been computed at two Ir concentrations ($1 \text{ mM} = 1 \times 10^{-3} \text{ mol L}^{-1}$ and $1 \text{ }\mu\text{M} = 1 \times 10^{-6} \text{ mol L}^{-1}$) with the 'best' equilibrium constants above. Calculations assume $T = 298 \text{ K}$ for the limiting case of zero ionic strength (*i.e.*, even neglecting plotted ions).

