
Equilibrium constants for hydrolysis and associated equilibria in critical compilations

Rhodium

Equilibrium reactions	lgK at infinite dilution and $T = 298\text{ K}$		
	Perrin et al., 1969	Baes and Mesmer, 1976	Brown and Ekberg, 2016
$\text{Rh}^{3+} + \text{H}_2\text{O} \rightleftharpoons \text{RhOH}^{2+} + \text{H}^+$	-3.43	-3.4	-3.09 ± 0.1
$\text{Rh}(\text{OH})_3(\text{c}) + \text{OH}^- \rightleftharpoons \text{Rh}(\text{OH})_4^-$		-3.9	

C.F. Baes and R.E. Mesmer, The Hydrolysis of Cations. Wiley, New York, 1976, p. 263.

P.L. Brown and C. Ekberg, Hydrolysis of Metal Ions. Wiley, 2016, pp. 722.

D.D. Perrin, Dissociation Constants of Inorganic Acids and Bases in Aqueous Solutions. International Union of Pure and Applied Chemistry. Commission on Electroanalytical Chemistry. Butterworths, 1969, pp. 195.

Distribution diagrams

These diagrams have been computed at two Rh 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 constant above (in green). Calculations assume $T = 298 \text{ K}$ for the limiting case of zero ionic strength (*i.e.*, even neglecting plotted ions).

