
Equilibrium constants for hydrolysis and associated equilibria in critical compilations

Curium

Equilibrium reactions	lgK at infinite dilution and $T = 298 \text{ K}$
	Brown and Ekberg, 2016
$\text{Cm}^{3+} + \text{H}_2\text{O} \rightleftharpoons \text{Cm}(\text{OH})^{2+} + \text{H}^+$	-7.66 ± 0.07
$\text{Cm}^{3+} + 2 \text{H}_2\text{O} \rightleftharpoons \text{Cm}(\text{OH})_2^+ + 2 \text{H}^+$	-15.9 ± 0.1
$\text{Cm}^{3+} + 3 \text{H}_2\text{O} \rightleftharpoons \text{Cm}(\text{OH})_3(\text{s}) + 3 \text{H}^+$	-13.9 ± 0.4

P.L. Brown and C. Ekberg, Hydrolysis of Metal Ions. Wiley, 2016, pp. 415–420.

Distribution diagrams

These diagrams have been computed at two Bk(III) 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).

