

Equilibrium constants for hydrolysis and associated equilibria in critical compilations

Curium(III)

Equilibrium reactions	IgK at infinite dilution and T = 298 K
	Brown and Ekberg, 2016
$\text{Cm}^{3+} + \text{H}_2\text{O} \rightleftharpoons \text{Cm(OH)}^{2+} + \text{H}^+$	-7.66 ± 0.07
$\text{Cm}^{3+} + 2 \text{H}_2\text{O} \rightleftharpoons \text{Cm(OH)}_2^+ + 2 \text{H}^+$	-15.9 ± 0.1
$\text{Cm}^{3+} + 3 \text{H}_2\text{O} \rightleftharpoons \text{Cm(OH)}_3(\text{s}) + 3 \text{H}^+$	-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 mM = 1×10^{-3} mol L⁻¹ and 1 µM = 1×10^{-6} mol L⁻¹) with the ‘best’ equilibrium constants above. Calculations assume $T = 298$ K for the limiting case of zero ionic strength (*i.e.*, even neglecting plotted ions).

