



Equilibrium constants for hydrolysis and associated equilibria in critical compilations

Curium(III)

Equilibrium reactions	lgK at infinite dilution and $T = 298 K$
	Brown and Ekberg, 2016
$Cm^{3+} + H_2O \rightleftharpoons Cm(OH)^{2+} + H^+$	-7.66 ± 0.07
$Cm^{3+} + 2 H_2O \rightleftharpoons Cm(OH)_2^+ + 2 H^+$	-15.9 ± 0.1
$Cm^{3+} + 3 H_2O \rightleftharpoons Cm(OH)_3(s) + 3 H^+$	-13.9 ± 0.4

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

Distribution diagrams

0

0

2

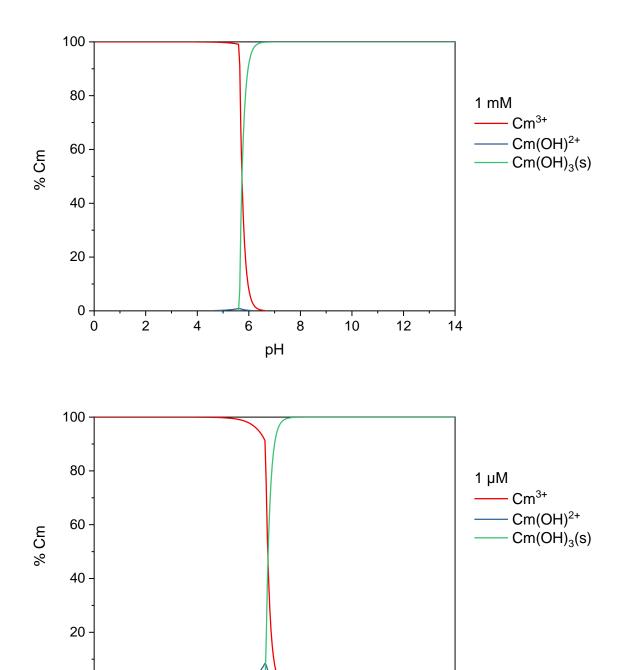
6

рΗ

8

4

These diagrams have been computed at two Bk(III) concentrations (1 mM = $1x10^{-3}$ mol L⁻¹ and 1 μ M = $1x10^{-6}$ 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).



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12

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