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Holmium

Equilibrium reactions	lg*K* at infinite dilution and *T* = 298 K	
	Baes and Mesmer, 1976	Brown and Ekberg, 2016
$Ho^{3+} + H_2O \rightleftharpoons HoOH^{2+} + H^+$	−8.0	−7.43 ± 0.05
$2\ Ho^{3+} + 2\ H_2O \rightleftharpoons Ho_2(OH)_2^{4+} + 2\ H^+$		−13.5 ± 0.2
$3\ Ho^{3+} + 5\ H_2O \rightleftharpoons Ho_3(OH)_5^{4+} + 5\ H^+$		−30.9 ± 0.3
$Ho(OH)_3(s) + 3\ H^+ \rightleftharpoons Ho^{3+} + 3\ H_2O$	15.4	15.60 ± 0.30

C.F. Baes and R.E. Mesmer, The Hydrolysis of Cations. Wiley, New York, 1976, p. 137.

P.L. Brown and C. Ekberg, Hydrolysis of Metal Ions. Wiley, 2016, pp. 247, 250−251 and 293−295.

Distribution diagrams

These diagrams have been computed at two Ho concentrations (1 mM = $1x10^{-3}$ mol L^{-1} and 1 µM = $1x10^{-6}$ mol L^{-1}) with the 'best' equilibrium constants above (in green). Calculations assume T = 298 K for the limiting case of zero ionic strength (*i.e.*, even neglecting plotted ions).