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Gadolinium

Reaction	Baes and Mesmer, 1976	Brown and Ekberg, 2016
$Gd^{3+} + H_2O \rightleftharpoons GdOH^{2+} + H^+$	−8.0	−7.87 ± 0.05
$Gd^{3+} + 2\ H_2O \rightleftharpoons Gd(OH)_2^{+} + 2\ H^+$	(−16.4)	
$Gd^{3+} + 3\ H_2O \rightleftharpoons Gd(OH)_3 + 3\ H^+$	(−25.2)	
$Gd^{3+} + 4\ H_2O \rightleftharpoons Gd(OH)_4^{-} + 4\ H^+$	−34.4	
$2\ Gd^{3+} + 2\ H_2O \rightleftharpoons Gd_2(OH)_2^{4+} + 2\ H^+$		−14.16 ± 0.20
$3\ Gd^{3+} + 5\ H_2O \rightleftharpoons Gd_3(OH)_5^{4+} + 5\ H^+$		−33.0 ± 0.3

$Gd(OH)_3(s) + 3\ H^+ \rightleftharpoons Gd^{3+} + 3\ H_2O$	15.6	17.20 ± 0.48
$Gd(OH)_3(c) + OH^- \rightleftharpoons Gd(OH)_4^-$	−4.8 ± 0.3	
$Gd(OH)_3(c) \rightleftharpoons Gd(OH)_3$	−9.6	

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

P.L. Brown and C. Ekberg, Hydrolysis of Metal Ions. Wiley, 2016, pp. 247, 250−251 and 284−287.