



Veronika Zinovyeva 30 November 2021

Terbium

Reaction	Baes and Mesmer, 1976	Brown and Ekberg, 2016
$Tb^{3+} + H_2O \rightleftharpoons TbOH^{2+} + H^+$	-7.9	-7.60 ± 0.09
$2 \text{ Tb}^{3+} + 2 \text{ H}_2\text{O} \rightleftharpoons \text{Tb}_2(\text{OH})_2^{4+} + 2 \text{ H}^+$		-13.9 ± 0.2
$3 \text{ Tb}^{3+} + 5 \text{ H}_2\text{O} \rightleftharpoons \text{Tb}_3(\text{OH})_5^{4+} + 5 \text{ H}^+$		-31.7 ± 0.3
$Tb(OH)_3(s) + 3 H^+ \rightleftharpoons Tb^{3+} + 3 H_2O$	16.5	16.33 ± 0.30

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 287–290.