

Thallium(III)

Reaction	Baes and Mesmer, 1976	Brown and Ekberg, 2016
$\text{Tl}^{3+} + \text{H}_2\text{O} \rightleftharpoons \text{TlOH}^{2+} + \text{H}^+$	-0.62	-0.22 ± 0.19
$\text{Tl}^{3+} + 2 \text{H}_2\text{O} \rightleftharpoons \text{Tl}(\text{OH})_2^+ + 2 \text{H}^+$	-1.57	
$\text{Tl}^{3+} + 3 \text{H}_2\text{O} \rightleftharpoons \text{Tl}(\text{OH})_3 + 3 \text{H}^+$	-3.3	
$\text{Tl}^{3+} + 4 \text{H}_2\text{O} \rightleftharpoons \text{Tl}(\text{OH})_4^- + 4 \text{H}^+$	-15.0	
$\frac{1}{2} \text{Tl}_2\text{O}_3(\text{s}) + 3 \text{H}^+ \rightleftharpoons \text{Tl}^{3+} + \frac{3}{2} \text{H}_2\text{O}$	-3.90 ± 0.10	-3.90 ± 0.10 †

C.F. Baes and R.E. Mesmer, The Hydrolysis of Cations. Wiley, New York, 1976, p. 335.

P.L. Brown and C. Ekberg, *Hydrolysis of Metal Ions*. Wiley, 2016, pp. 817–826.