

Clemente Bretti, Gabriele Lando, Demetrio Milea, Andrzej Mular, Yuliya Toporivska

22 July 2022

Titanium(III)

| Reaction | Perrin et al., 1969 | Baes and Mesmer, 1976 | Brown and Ekberg, 2016 |
|---|------------------------|--------------------------|---------------------------|
| $\text{Ti}^{3+} + \text{H}_2\text{O} \rightleftharpoons \text{TiOH}^{2+} + \text{H}^+$ | -1.29 | -2.2 ± 0.3 | -1.65 ± 0.11 |
| $2 \text{Ti}^{3+} + 2 \text{H}_2\text{O} \rightleftharpoons \text{Ti}_2(\text{OH})_2^{4+} + 2 \text{H}^+$ | | -3.6 ± 0.5 | -2.64 ± 0.10 |

C.F. Baes and R.E. Mesmer, *The Hydrolysis of Cations*. Wiley, New York, 1976, pp. 147–151

P.L. Brown and C. Ekberg, *Hydrolysis of Metal Ions*. Wiley, 2016, pp. 433–442.

D.D. Perrin, *Dissociation Constants of Inorganic Acids and Bases in Aqueous Solutions*. International Union of Pure and Applied Chemistry. Commission on Electroanalytical Chemistry. Butterworths, 1969, pp. 208.