

Magnesium

Reaction	Baes and Mesmer, 1976	Nordstrom et al., 1990	Brown and Ekberg, 2006
$\text{Mg}^{2+} + \text{H}_2\text{O} \rightleftharpoons \text{MgOH}^+ + \text{H}^+$	-11.44	-11.44	-11.70 ± 0.04
$4 \text{Mg}^{2+} + 4 \text{H}_2\text{O} \rightleftharpoons \text{Mg}_4\text{OH}_4^{4+} + 4 \text{H}^+$	-39.71		
$\text{Mg}(\text{OH})_2(\text{cr}) + 2 \text{H}^+ \rightleftharpoons \text{Mg}^{2+} + 2 \text{H}_2\text{O}$	16.84	16.84	17.11 ± 0.04

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. 155-224.

D.K. Nordstrom, L.N. Plummer, D. Langmuir, E. Busenberg, H.M. May, B.F. Jones and D.L. Parkhurst, Revised chemical equilibrium data for major water-mineral reactions and their limitations. In: *Chemical Modeling of Aqueous Systems II*. D.C. Melchior and R.L. Bassett (eds.). ACS Symposium Series 416. ACS, Washington DC, 1990.