

Cobalt(II)

Reaction	Baes and Mesmer, 1976	Brown and Ekberg, 2016
$\text{Co}^{2+} + \text{H}_2\text{O} \rightleftharpoons \text{Co}(\text{OH})^+ + \text{H}^+$	-9.65	-9.61 ± 0.17
$\text{Co}^{2+} + 2 \text{H}_2\text{O} \rightleftharpoons \text{Co}(\text{OH})_2 + 2 \text{H}^+$	-18.8	-19.77 ± 0.11
$\text{Co}^{2+} + 3 \text{H}_2\text{O} \rightleftharpoons \text{Co}(\text{OH})_3^- + 3 \text{H}^+$	-31.5	-32.01 ± 0.33
$\text{Co}^{2+} + 4 \text{H}_2\text{O} \rightleftharpoons \text{Co}(\text{OH})_4^{2-} + 4 \text{H}^+$	-46.3	
$2 \text{Co}^{2+} + \text{H}_2\text{O} \rightleftharpoons \text{Co}_2(\text{OH})^{3+} + \text{H}^+$	-11.2	
$4 \text{Co}^{2+} + 4 \text{H}_2\text{O} \rightleftharpoons \text{Co}_4(\text{OH})_4^{4+} + 4\text{H}^+$	-30.53	

$\text{Co(OH)}_2(\text{s}) + 2 \text{H}^+ \rightleftharpoons \text{Co}^{2+} + 2 \text{H}_2\text{O}$	12.3	13.24 ± 0.12
$\text{CoO}(\text{s}) + 2 \text{H}^+ \rightleftharpoons \text{Co}^{2+} + \text{H}_2\text{O}$		13.71 ± 0.10

C.F. Baes and R.E. Mesmer, The Hydrolysis of Cations. Wiley, New York, 1976, p. 241.

P.L. Brown and C. Ekberg, Hydrolysis of Metal Ions. Wiley, 2016, pp. 620–628.

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Reaction	Brown and Ekberg, 2016
$\text{Co}^{3+} + \text{H}_2\text{O} \rightleftharpoons \text{Co}(\text{OH})^{2+} + \text{H}^+$	-1.07 ± 0.11

P.L. Brown and C. Ekberg, Hydrolysis of Metal Ions. Wiley, 2016, pp. 628–632.