Palladium

Equilibrium reactions	lg*K* at infinite dilution and *T* = 298 K			
	Perrin et al., 1969	Hummel et al., 2002	Kitamura and Yui, 2010	Brown and Ekberg, 2016
$Pd^{2+} + H_2O \rightleftharpoons PdOH^+ + H^+$	−0.96		−0.65 ± 0.64	−1.16 ± 0.30
$Pd^{2+} + 2\ H_2O \rightleftharpoons Pd(OH)_2 + 2\ H^+$	−2.6	−4 ± 1	−3.11 ± 0.63	−3.07 ± 0.16
$Pd^{2+} + 3\ H_2O \rightleftharpoons Pd(OH)_3^- + 3\ H^+$		−15.5 ± 1	−14.20 ± 0.63	
$Pd(OH)_2(am) + 2\ H^+ \rightleftharpoons Pd^{2+} + 2\ H_2O$		−3.3 ± 1		−3.4 ± 0.2

P.L. Brown and C. Ekberg, Hydrolysis of Metal Ions. Wiley, 2016, pp. 723−725.

W. Hummel, U. Berner, E. Curti, F.J. Pearson, T. Thoenen, Technical report 02-16 Nagra / PSI Chemical Thermodynamic Data Base 01/01, 2002, pp. 244−245.

A. Kitamura, M. Yui, Reevaluation of thermodynamic data for hydroxide and hydrolysis species of palladium(II) using the Brønsted-Guggenheim Scatchard model. J. Nuclear Sci. Technol. 47, 760−770 (2010).

D.D. Perrin, International Union of Pure and Applied Chemistry. Commission on Electroanalytical Chemistry, Dissociation constants of inorganic acids and bases in aqueous solutions. Butterworths, 1969, pp. 186.

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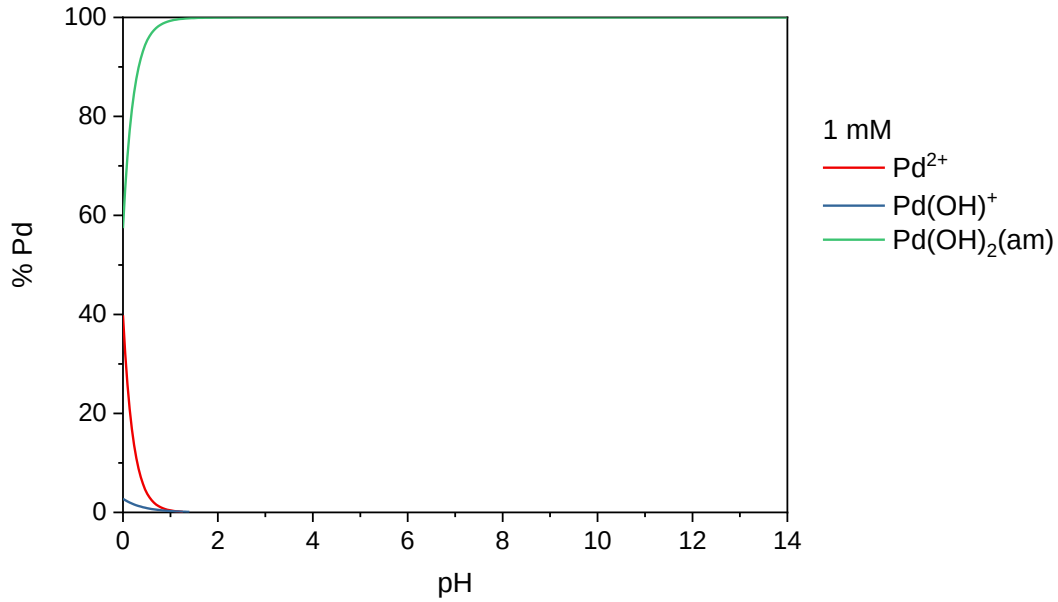
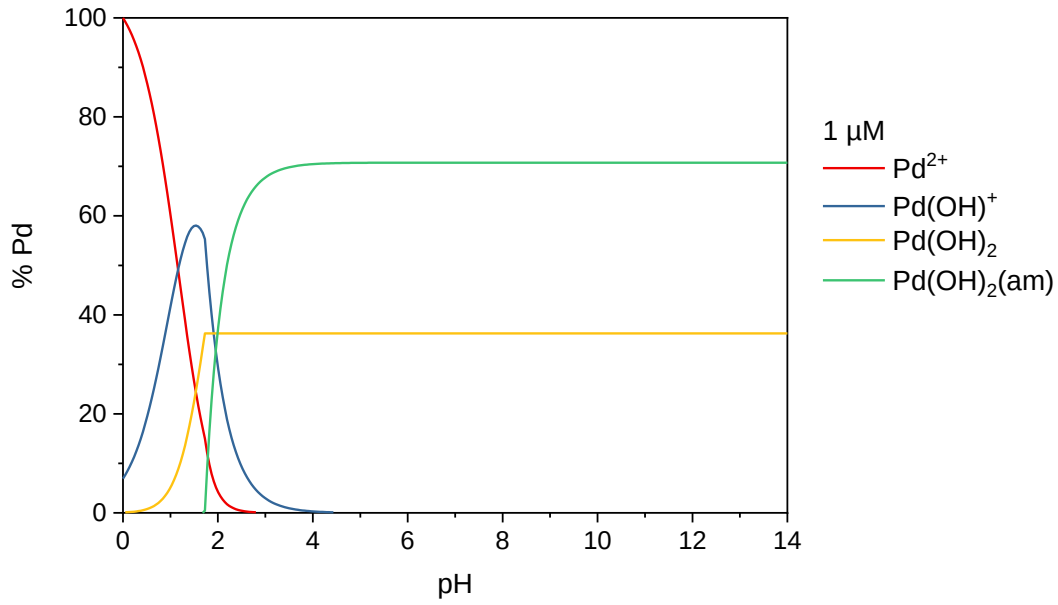
Distribution diagrams

These diagrams have been computed at two Pd concentrations (1 mM = $1x10^{-3}$ mol L^{-1} and 1 μM = $1x10^{-6}$ mol L^{-1}) with the 'best' equilibrium constants above (in green). Calculations assume T = 298 K for the limiting case of zero ionic strength (*i.e.*, even neglecting plotted ions).





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