
 Equilibrium constants for hydrolysis and associated equilibria in critical compilations

Selenium(VI)

Equilibrium reactions	lgK at infinite dilution and T = 298 K		
	Baes and Mesmer, 1976	Olin et al., 2005	Thoenen et al., 2014
$\text{SeO}_4^{2-} + \text{H}^+ \rightleftharpoons \text{HSeO}_4^-$	1.360 ^a	$1.75 \pm 0.10^{\text{a}}$	1.75 ± 0.10

^aReaction written as deprotonation reaction in the original publication.

C.F. Baes and R.E. Mesmer, The Hydrolysis of Cations. Wiley, New York, 1976, p. 387.

Å. Olin, B. Noläng, L.-O. Öhman, E. Osadchii and E. Rosén, Chemical Thermodynamics of Selenium, OECD Pub., 2005.

T. Thoenen, W. Hummel, U. Berner, E. Curti, The PSI/Nagra Chemical Thermodynamic Database 12/07, Villigen: Paul Scherrer Institut PSI, 2014.

Distribution diagrams

These diagrams have been computed at two Se(VI) concentrations (1 mM = 1×10^{-3} mol L⁻¹ and 1 µM = 1×10^{-6} mol L⁻¹) with the ‘best’ equilibrium constant above (in green). Calculations assume $T = 298$ K for the limiting case of zero ionic strength (*i.e.*, even neglecting plotted ions).

