
Equilibrium constants for hydrolysis and associated equilibria in critical compilations

Selenium(-II)

Equilibrium reactions	lgK at infinite dilution and $T = 298 \text{ K}$	
	Olin et al., 2005	Thoenen et al., 2014
$\text{H}_2\text{Se(g)} \rightleftharpoons \text{H}_2\text{Se(aq)}$	-1.10 ± 0.01	-1.10 ± 0.01
$\text{H}_2\text{Se} \rightleftharpoons \text{HSe}^- + \text{H}^+$	-3.85 ± 0.05	-3.85 ± 0.05
$\text{HSe}^- \rightleftharpoons \text{Se}^{2-} + \text{H}^+$	-14.91 ± 0.20	

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

T. Thoenen, W. Hummel, U. Berner and 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(-II) concentrations ($1 \text{ mM} = 1 \times 10^{-3} \text{ mol L}^{-1}$ and $1 \text{ }\mu\text{M} = 1 \times 10^{-6} \text{ mol L}^{-1}$) with the 'best' equilibrium constants above (in green). Calculations assume $T = 298 \text{ K}$ for the limiting case of zero ionic strength (*i.e.*, even neglecting plotted ions).

