

## Tin(IV)

Reaction	Hummel et al., 2002	Gamsjäger et al, 2012	Brown and Ekberg, 2016
$\text{Sn}^{4+} + 4 \text{H}_2\text{O} = \text{Sn}(\text{OH})_4 + 4 \text{H}^+$			$7.53 \pm 0.12$
$\text{Sn}^{4+} + 5 \text{H}_2\text{O} = \text{Sn}(\text{OH})_5^- + 5 \text{H}^+$			$-1.07 \pm 0.42$
$\text{Sn}^{4+} + 6 \text{H}_2\text{O} = \text{Sn}(\text{OH})_6^{2-} + 6 \text{H}^+$			$-11.14 \pm 0.32$
$\text{Sn}(\text{OH})_4 + \text{H}_2\text{O} = \text{Sn}(\text{OH})_5^- + \text{H}^+$	$-8.0 \pm 0.3$	$-8.60 \pm 0.40$	
$\text{Sn}(\text{OH})_4 + 2 \text{H}_2\text{O} = \text{Sn}(\text{OH})_6^{2-} + 2 \text{H}^+$	$-18.4 \pm 0.3$	$-18.67 \pm 0.30$	
$\text{SnO}_2(\text{cr}) + 2 \text{H}_2\text{O} = \text{Sn}(\text{OH})_4$	$-8.0 \pm 0.2$	$-8.06 \pm 0.11$	

$\text{SnO}_2(\text{am}) + 2 \text{H}_2\text{O} = \text{Sn}(\text{OH})_4$	$-7.3 \pm 0.3$	$-7.22 \pm 0.08$	
$\text{SnO}_2(\text{s}) + 4 \text{H}^+ = \text{Sn}^{4+} + 2 \text{H}_2\text{O}$			$-15.59 \pm 0.04$

P.L. Brown and C. Ekberg, Hydrolysis of Metal Ions. Wiley, 2016, pp. 836–42.

W. Hummel, U. Berner, E. Curti, F.J. Pearson and T. Thoenen. Nagra / PSI Chemical Thermodynamic Data Base 01/01, July 2002.

H. Gamsjäger, T. Gajda, J. Sangster, S. K. Saxena and W. Voigt. Chemical Thermodynamics of Tin. Chemical Thermodynamics Volume 12. OECD, Paris, 2012.