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# Tin(II)

| Reaction | Baes and Mesmer, 1976 | Feitknecht, 1963 | Hummel et al., 2002 | NIST46 | Cigala et al., 2012 | Gamsjäger et al, 2012 | Brown and Ekberg, 2016 |
|---|---|---|---|---|---|---|---|
| $Sn^{2+} + H_2O = SnOH^+ + H^+$ | –3.40 | | –3.8 ± 0.2 | –3.4 | –3.52 ± 0.05 | –3.53 ± 0.40 | –3.53 ± 0.40 |
| $Sn^{2+} + 2\ H_2O = Sn(OH)_2 + 2\ H^+$ | –7.06 | | –7.7 ± 0.2 | –7.1 | –6.26 ± 0.06 | –7.68 ± 0.40 | –7.68 ± 0.40 |
| $Sn^{2+} + 3\ H_2O = Sn(OH)_3^- + 3\ H^+$ | –16.61 | | –17.5 ± 0.2 | –16.6 | –16.97 ± 0.17 | –17.00 ± 0.60 | –17.56 ± 0.40 |
| $2\ Sn^{2+} + 2\ H_2O = Sn_2(OH)_2^{2+} + 2\ H^+$ | –4.77 | | | –4.8 | –4.79 ± 0.05 | | |
| $3\ Sn^{2+} + 4\ H_2O = Sn_3(OH)_4^{2+} + 4\ H^+$ | –6.88 | | –5.6 ± 1.6 | –6.88 | –5.88 ± 0.05 | –5.60 ± 0.47 | −5.60 ± 0.47 |
| $Sn(OH)_2(s) = Sn^{2+} + 2\ OH^-$ | | | | –25.8 | –26.28 ± 0.08 | | |

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|---|---|---|---|---|---|---|---|
| $SnO(s) + 2\ H^+ = Sn^{2+} + H_2O$<br><br>$SnO(s) + H_2O = Sn^{2+} + 2\ OH^-$<br><br>$SnO(s) + H_2O = Sn(OH)_2$<br><br>$SnO(s) + 2\ H_2O = Sn(OH)_3^- + H^+$ | 1.76 | <br><br>–26.2<br><br>–5.3<br><br>–0.9 | 2.5± 0.5 | | | | 1.60 ± 0.15 |


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