antimony

Inchi: InChI=1S/Sb
InchiKey: WATWJIUSRGPENY-UHFFFAOYSA-N
Formula: Sb
SMILES: [Sb]
Mol. weight [g/mol]: 121.76
CAS: 7440-36-0

Physical Properties

Property code	Value	Unit	Source
ea	1.05 ± 0.00	eV	NIST Webbook
ea	1.05 ± 0.01	eV	NIST Webbook
ea	1.07 ± 0.05	eV	NIST Webbook
ie	8.64	eV	NIST Webbook
ie	8.64	eV	NIST Webbook
ie	8.60	eV	NIST Webbook
ie	8.30 ± 0.40	eV	NIST Webbook
ie	8.68 ± 0.06	eV	NIST Webbook
ie	8.64	eV	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.15271e+01
Coeff. B	-1.14776e+04
Coeff. C	-1.98830e+02
Temperature range (K), min.	807.15
Temperature range (K), max.	1860.15

Sources

Experimental investigation and modeling of phase equilibria for Cu-Bi and Cu-Bi-Sb alloys in vacuum distillation:	https://www.doi.org/10.1016/j.fluid.2019.03.003
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7440360&Units=SI
Enthalpies of mixing of liquid systems for lead free soldering: Cu-Sb-Sn system:	https://www.doi.org/10.1016/j.tca.2010.10.010
Thermodynamic investigation of the moderately dilute liquid Bi Fe Sb alloys:	https://www.doi.org/10.1016/j.tca.2006.02.029
Thermodynamic behavior of polyvalent solutes in solid silver: System Ag Sb:	https://www.doi.org/10.1016/j.tca.2012.09.037
Enthalpy of mixing of liquid systems for lead free soldering: The Ni-Sb-Sn system:	https://www.doi.org/10.1016/j.tca.2012.01.024
Thermodynamic properties of liquid (antimony + tin) and (gold + antimony + tin) alloys determined from emm measurements:	https://www.doi.org/10.1016/j.jct.2015.01.010
Thermochemistry of Liquid Ni-Sb-Sn Alloys:	https://www.doi.org/10.1016/j.tca.2012.02.024
Vapor-liquid phase equilibria of binary tineantimony system in vacuum distillation: Experimental investigation and calculation:	https://www.doi.org/10.1016/j.fluid.2016.02.012
Thermodynamics of tetraphenylantimony benzoate Ph4SbO(C)Ph:	https://www.doi.org/10.1016/j.jct.2018.11.011
Thermodynamic study in the Ag-Sb-S system by the EMF method:	https://www.doi.org/10.1016/j.jct.2016.03.009
Thermodynamic study of MgO-Sb2O3 system and the stability functions of magnesium antimonite:	https://www.doi.org/10.1016/j.jct.2013.12.032
The measurement of thermal conductivity variation with temperature for Sn-20 wt.% In based lead-free ternary solders:	https://www.doi.org/10.1016/j.tca.2012.12.012
Density, Surface Tension, and Viscosity of Liquid Pb-Sb Alloys:	https://www.doi.org/10.1021/acs.jced.7b01049

Legend

ea:	Electron affinity
ie:	Ionization energy
pvap:	Vapor pressure

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