tellurium dioxide

Other names: tellurium(IV) dioxide
tellurium(IV) oxide
Inchi: InChI=1S/O2Te/c1-3-2
InchiKey: LAJZODKXOMJMPK-UHFFFAOYSA-N
Formula: O2Te
SMILES: O=[Te]=O
Mol. weight [g/mol]: 159.60
CAS: 7446-07-3

Physical Properties

Property code	Value	Unit	Source
ea	2.20	eV	NIST Webbook
ea	2.27	eV	NIST Webbook
hfus	29.14	kJ/mol	Thermodynamic properties of intermetallic PtTe determined by means of a solid electrolyte EMF method
log10ws	-6.31		Crippen Method
logp	-0.618		Crippen Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
psub	1.49e-04	kPa	884.00	Thermodynamic stability of Sm2TeO6
psub	1.69e-04	kPa	889.00	Thermodynamic stability of Sm2TeO6
psub	1.99e-04	kPa	895.00	Thermodynamic stability of Sm2TeO6
psub	2.54e-04	kPa	899.00	Thermodynamic stability of Sm2TeO6
psub	3.10e-04	kPa	905.00	Thermodynamic stability of Sm2TeO6

psub	3.27e-04	kPa	909.00	Thermodynamic stability of Sm2TeO6
psub	4.74e-04	kPa	915.00	Thermodynamic stability of Sm2TeO6
psub	6.10e-04	kPa	925.00	Thermodynamic stability of Sm2TeO6
psub	6.02e-04	kPa	925.00	Thermodynamic stability of Sm2TeO6
psub	5.68e-04	kPa	925.00	Thermodynamic stability of Sm2TeO6
psub	5.41e-04	kPa	926.00	Thermodynamic stability of Sm2TeO6
psub	9.29e-04	kPa	935.00	Thermodynamic stability of Sm2TeO6
psub	1.15e-03	kPa	940.00	Thermodynamic stability of Sm2TeO6
psub	1.07e-03	kPa	941.00	Thermodynamic stability of Sm2TeO6
psub	1.26e-03	kPa	946.00	Thermodynamic stability of Sm2TeO6
psub	1.46e-03	kPa	951.00	Thermodynamic stability of Sm2TeO6
psub	2.17e-03	kPa	960.00	Thermodynamic stability of Sm2TeO6
psub	3.41e-03	kPa	971.00	Thermodynamic stability of Sm2TeO6
psub	3.72e-03	kPa	976.00	Thermodynamic stability of Sm2TeO6
psub	4.54e-03	kPa	982.00	Thermodynamic stability of Sm2TeO6
psub	4.96e-03	kPa	987.00	Thermodynamic stability of Sm2TeO6

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Thermodynamic properties of intermetallic PtTe determined by means of a solidelectrolyte EMF method:	https://www.doi.org/10.1016/j.jct.2015.09.007
Thermodynamic stability of Sm2TeO6:	https://www.doi.org/10.1016/j.tca.2007.11.004
Standard Gibbs energy of formation of tellurium dioxidemeasurement by a solid-oxideelectrolyte EMF technique:	https://www.doi.org/10.1016/j.tca.2013.08.006
Thermophysicochemical investigations on A-Te-O (A = Cr, Fe, Ni) system:	https://www.doi.org/10.1016/j.tca.2014.03.016
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7446073&Units=SI

Legend

ea:	Electron affinity
hfus:	Enthalpy of fusion at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
psub:	Sublimation pressure