caesium iodide

Other names: Cesium iodide
Inchi: InChI=1S/Cs.HI/h;1H/q+1;/p-1
InchiKey: XQPRBTXUXXVTKB-UHFFFAOYSA-M
Formula: CsI
SMILES: I[Cs]
Mol. weight [g/mol]: 259.81
CAS: 7789-17-5

Physical Properties

Property code	Value	Unit	Source
ea	0.63 ± 0.04	eV	NIST Webbook
hsub	195.60	kJ/mol	NIST Webbook
hsub	193.10	kJ/mol	NIST Webbook
hsub	193.10	kJ/mol	NIST Webbook
hsub	191.10	kJ/mol	NIST Webbook
ie	7.20 ± 0.20	eV	NIST Webbook
ie	6.70 ± 0.40	eV	NIST Webbook
ie	7.10	eV	NIST Webbook
ie	6.50 ± 0.20	eV	NIST Webbook
ie	7.10 ± 0.10	eV	NIST Webbook
ie	7.10 ± 0.05	eV	NIST Webbook
ie	7.25 ± 0.05	eV	NIST Webbook
ie	7.46 ± 0.05	eV	NIST Webbook
ie	7.20	eV	NIST Webbook
ie	7.10 ± 0.10	eV	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.55839e+01
Coeff. B	-1.57727e+04
Coeff. C	-1.14770e+02

Temperature range (K), min.	1011.15
Temperature range (K), max.	1553.15

Sources

Knudsen cell mass spectrometric study of the Cs2IOH(g) molecule thermodynamics:	https://www.doi.org/10.1016/j.jct.2013.05.032
Temperature Dependence of the Density of Aqueous Alkali Halide Salt Solutions by Experiment and Molecular Simulation:	https://www.doi.org/10.1021/je500420g
Density of Methanolic Alkali Halide Salt Solutions by Experiment and Molecular Simulation:	https://www.doi.org/10.1021/je5009944
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7789175&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Ultrasound velocity in dissolving alkali halide melts:	https://www.doi.org/10.1016/j.jct.2010.10.021

Legend

ea:	Electron affinity
hsub:	Enthalpy of sublimation at standard conditions
ie:	Ionization energy
pvap:	Vapor pressure