

caesium fluoride

Other names:	Cesium fluoride cesium fluoride (CsF) cesium monofluoride
Inchi:	InChI=1S/Cs.FH/h;1H/q+1;/p-1
InchiKey:	XJHCXCQVJFPJIK-UHFFFAOYSA-M
Formula:	CsF
SMILES:	[Cs+].[F-]
Mol. weight [g/mol]:	151.90
CAS:	13400-13-0

Physical Properties

Property code	Value	Unit	Source
hfus	22.10	kJ/mol	A comprehensive study of the heat capacity of CsF from T = 5 K to T = 1400 K
ie	8.80 ± 0.10	eV	
ie	9.00 ± 0.20	eV	NIST Webbook
ie	8.80 ± 0.10	eV	NIST Webbook
ie	9.68 ± 0.05	eV	NIST Webbook
ie	9.70	eV	NIST Webbook
ie	9.00	eV	NIST Webbook
tf	972.00	K	Thermodynamic determination and assessment of the CsF-ThF4 system

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.53539e+01
Coeff. B	-1.51489e+04
Coeff. C	-1.13050e+02
Temperature range (K), min.	985.15

Activity Coefficients of RbF or CsF in the Ethene Glycol + Water System by the Yaws Handbook of Vapor Pressure: Density of Methanolic Alkali Halide Salt Solutions by Experiment and Molecular Simulation:	https://www.doi.org/10.1021/je200178b https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure https://www.doi.org/10.1021/je5009944 http://webbook.nist.gov/cgi/cbook.cgi?ID=C13400130&Units=SI
Potentiometric Investigation of the Thermodynamic Properties of Mixed Fluoride Systems Investigating the $\text{CsF} + \text{CsHSO}_4$ and $\text{CsF} + \text{Cs}_2\text{SO}_4$ Ternary Systems by Potentiometric Measurements of the $\text{CsF} + \text{H}_2\text{O}$ ternary system: Temperature Dependence of the Density of Aqueous Alkali Halide Salt Solutions by Experiment and Molecular Simulation:	https://www.doi.org/10.1021/acs.jced.8b00383 https://www.doi.org/10.1016/j.fluid.2016.11.006 https://www.doi.org/10.1016/j.jct.2016.08.014 https://www.doi.org/10.1016/j.jct.2017.05.008 https://www.doi.org/10.1021/je500420g https://www.doi.org/10.1016/j.jct.2012.08.003

hfus:	Enthalpy of fusion at standard conditions
ie:	Ionization energy
pvap:	Vapor pressure
tf:	Normal melting (fusion) point

<https://www.chemeo.com/cid/12-259-1/caesium-fluoride.pdf>

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