

Cesium bromide

Other names:	cesium bromide (CsBr) cesium monobromide
Inchi:	InChI=1S/BrH.Cs/h1H;/q;+1/p-1
InchiKey:	LYQFWZFBNBDLEO-UHFFFAOYSA-M
Formula:	CsBr
SMILES:	[Br][Cs]
Mol. weight [g/mol]:	212.81
CAS:	7787-69-1

Physical Properties

Property code	Value	Unit	Source
ea	0.54 ± 0.04	eV	NIST Webbook
ie	7.30	eV	NIST Webbook
ie	7.70 ± 0.10	eV	NIST Webbook
ie	7.30 ± 0.20	eV	NIST Webbook
ie	7.70 ± 0.10	eV	NIST Webbook
ie	7.46 ± 0.05	eV	NIST Webbook
ie	7.72 ± 0.05	eV	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.57184e+01
Coeff. B	-1.64223e+04
Coeff. C	-9.36700e+01
Temperature range (K), min.	1021.15
Temperature range (K), max.	1573.15

Sources

Potentiometric Investigation of the Thermodynamic Properties of Mixed Electrolyte Systems at 298.15 K: CsF + Density of Aqueous Alkali Halide Salt Solutions by Experiment and Molecular Simulation (M = Na, K, Rb, Cs) : Cheméo Relay (1.0, beta):

<https://www.doi.org/10.1021/acs.jced.8b00383>

<https://www.doi.org/10.1021/je500420g>

<https://www.doi.org/10.1021/je200419x>

Solid + Liquid Equilibria for the Systems CsBr + ErBr₃ + H₂O and CsBr + EuBr₃ + H₂O at 298.15 K and Vapor Pressure for the Polyhydric Metal Bromide Systems CsBr + ErBr₃ + H₂O (L = Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Y, Yb, Lu) and 200.12 K and Atmospheric Pressure of saturated aqueous solutions of Cs₂LnBr₅•10H₂O.

<https://www.doi.org/10.1021/acs.jced.5b00139>

<https://www.doi.org/10.1021/je301222e>

<https://www.doi.org/10.1016/j.jct.2015.07.004>

<https://www.doi.org/10.1016/j.jct.2005.04.016>

<https://www.doi.org/10.1016/j.jct.2010.10.021>

Density of Methanolic Alkali Halide Salt Solutions by Experiment and Molecular Simulation (liquid) Phase Equilibria for the Systems CsBr + EuBr₃ + H₂O and CsBr + ErBr₃ + H₂O at 298.15 K and Atmospheric Pressure and Thermodynamic Equilibria for the Ternary Systems CsBr + REBr₃ + H₂O (RE = La, Ce) and Vapor Pressure of the Solid Phase of Cs₂REBr₅•10H₂O, and Fluorescent Properties of Cs₂CeBr₅•10H₂O:

<https://www.doi.org/10.1021/je5009944>

<https://www.doi.org/10.1021/acs.jced.6b00242>

Cheméo Relay (1.0, beta):

<https://www.doi.org/10.1021/je500495n>

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C7787691&Units=SI>

Re-Evaluation of the Thermodynamic Activity Quantities in Aqueous Alkali Metal Bromide Solutions at 25 degC:

<https://www.doi.org/10.1021/je9007662>

Legend

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

Latest version available from:

<https://www.cheméo.com/cid/34-189-5/Cesium-bromide.pdf>

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