

Lithium fluoride

Other names:	lithium monofluoride lithium monofluoride (LiF)
Inchi:	InChI=1S/FH.Li/h1H;/q;+1/p-1
InchiKey:	PQXKHXYIUOZZFA-UHFFFAOYSA-M
Formula:	F2Li2
SMILES:	[Li][F]
Mol. weight [g/mol]:	51.88
CAS:	12265-82-6

Physical Properties

Property code	Value	Unit	Source
tf	1117.00	K	An anion effect on the separation of AgI-containing melts using sound waves
tf	1117.00	K	Adiabatic compressibility along the two-phase saturation line for the molten (LiF + CsCl) system

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
econd	855.00	S/m	1131.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	858.00	S/m	1136.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides

econd	868.00	S/m	1151.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	877.00	S/m	1169.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	880.00	S/m	1173.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	886.00	S/m	1184.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	888.00	S/m	1190.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	890.00	S/m	1194.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	892.00	S/m	1198.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	896.00	S/m	1206.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	897.00	S/m	1210.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides

econd	900.00	S/m	1217.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	899.00	S/m	1221.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	905.00	S/m	1229.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	907.00	S/m	1232.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	907.00	S/m	1233.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	908.00	S/m	1237.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	911.00	S/m	1244.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	911.00	S/m	1245.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides

econd	916.00	S/m	1258.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	918.00	S/m	1267.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	918.00	S/m	1269.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides
econd	923.00	S/m	1283.00	Liquid + liquid equilibrium in mixtures of lithium fluoride with potassium and rubidium halides

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.80572e+01
Coeff. B	-2.54550e+04
Coeff. C	-5.20100e+01
Temperature range (K), min.	1320.15
Temperature range (K), max.	1946.15

Sources

Cheméo Relay (1.0, beta):

Solubility of Carbon Dioxide in LiF
Li₂CO₃ Molten Salt System:
Cheméo Relay (1.0):

<https://www.doi.org/10.1021/acs.jced.6b00043>

Thermodynamic of LiF dissolution in
alkylcarbonates and some of their
mixtures with water:

<https://www.doi.org/10.1016/j.fluid.2009.07.020>

An anion effect on the separation of AgI-containing melts using sound wave adiabatic compressibility along the two-phase saturation line for the lithium and cesium systems in dissolving alkali halide melts:
Physico-chemical Properties of the (LiF + CaF₂)eut + LaF₃ System: Phase Equilibria, Volume Properties, Electrical Conductivities and Surface Tension of Molten Fluorides
Crystallization and Density of the KF + NaF System
Phase Diagram of Molten System: fluoride molten salts electrolytesystem:
The Yaws Handbook of Vapor Pressure:
Solubilities of Five Lithium Salts in 1-Butyl-3-methylimidazolium
Binary liquid-liquid equilibrium in mixtures of 1-butyl-3-methylimidazolium and lithium chloride with potassium and sodium hexafluoroantimonates at the system(LiF + NaF + KF(eut.)) + NaFZrF₄ phase equilibria, density and volume properties, viscosity and surface tension:

<https://www.doi.org/10.1016/j.ijct.2015.03.022>

<https://www.doi.org/10.1016/j.ijct.2019.07.003>

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

<https://www.doi.org/10.1021/acs.jced.5b00536>

<https://www.doi.org/10.1016/j.fluid.2017.12.034>

<https://www.doi.org/10.1021/acs.jced.8b00157>

<https://www.doi.org/10.1016/j.tca.2016.03.033>

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

<https://www.doi.org/10.1021/acs.jced.8b00618>

<https://www.doi.org/10.1016/j.ijct.2012.02.015>

<https://www.doi.org/10.1016/j.ijct.2014.03.024>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C12265826&Units=SI>

Legend

ecnd: Electrical conductivity
pvap: Vapor pressure
tf: Normal melting (fusion) point

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