

lithium carbonate

Inchi:

InchiKey:

Formula:

SMILES:

Mol. weight [g/mol]:

CAS:

InChI=1S/CH2O3.2Li/c2-1(3)4;;/h(H2,2,3,4);;/q;2*+1/p-2

XGZVUEUWXADBQD-UHFFFAOYSA-L

CLi2O3

O=C([O-])[O-].[Li+].[Li+]

73.89

554-13-2

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cps	116.88	J/mol×K	403.15	Heat capacity, enthalpy and entropy of Li2CO3 at 303.15 to 563.15 K
cps	99.89	J/mol×K	303.15	Heat capacity, enthalpy and entropy of Li2CO3 at 303.15 to 563.15 K
cps	100.98	J/mol×K	323.15	Heat capacity, enthalpy and entropy of Li2CO3 at 303.15 to 563.15 K
cps	107.69	J/mol×K	343.15	Heat capacity, enthalpy and entropy of Li2CO3 at 303.15 to 563.15 K
cps	111.21	J/mol×K	363.15	Heat capacity, enthalpy and entropy of Li2CO3 at 303.15 to 563.15 K
cps	115.61	J/mol×K	383.15	Heat capacity, enthalpy and entropy of Li2CO3 at 303.15 to 563.15 K
cps	120.05	J/mol×K	443.15	Heat capacity, enthalpy and entropy of Li2CO3 at 303.15 to 563.15 K

cps	129.08	J/mol×K	483.15	Heat capacity, enthalpy and entropy of Li ₂ CO ₃ at 303.15 to 563.15 K
cps	132.77	J/mol×K	533.15	Heat capacity, enthalpy and entropy of Li ₂ CO ₃ at 303.15 to 563.15 K
cps	137.29	J/mol×K	563.15	Heat capacity, enthalpy and entropy of Li ₂ CO ₃ at 303.15 to 563.15 K
psub	1.55	kPa	1008.15	Solubility of Carbon Dioxide in LiF Li ₂ CO ₃ Molten Salt System

Sources

Heat capacity, enthalpy and entropy of Li₂CO₃ at 303.15 to 563.15 K: <https://www.doi.org/10.1016/j.tca.2006.10.005>
Solubility of Carbon Dioxide in LiF Li₂CO₃ Molten Salt System: <https://www.doi.org/10.1021/acs.jced.6b00043>
Solubilities, Densities and Refractive Indices in the Aqueous Quaternary System of Lithium Sulfate, Lithium Nitrate, Potassium Chloride and Carbon Dioxide at 293.15, 298.15, 303.15 K and 0.1 MPa: <https://www.doi.org/10.1021/acs.jced.6b00777>
NIST Webbook: <https://www.doi.org/10.1021/acs.jced.7b01012>
Solubility of Li₂CO₃ in Na-K-Li-Cl brines from 20 to 90 °C: <http://webbook.nist.gov/cgi/cbook.cgi?ID=B6000502&Units=SI>
Development of a thermodynamic model for the Li₂CO₃-NaCl-Na₂SO₄-H₂O system and its application: <https://www.doi.org/10.1016/j.jct.2013.07.024>
<https://www.doi.org/10.1016/j.jct.2018.03.027>

Legend

cps: Solid phase heat capacity
psub: Sublimation pressure

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