lanthanum

Inchi: InChI=1S/La
InchiKey: FZLIPJUXYLNCLC-UHFFFAOYSA-N
Formula: La
SMILES: [La]
Mol. weight [g/mol]: 138.91
CAS: 7439-91-0

Physical Properties

Property code	Value	Unit	Source
affp	1013.00	kJ/mol	NIST Webbook
basg	991.90	kJ/mol	NIST Webbook
ea	0.47 ± 0.02	eV	NIST Webbook
ie	5.50 ± 0.20	eV	NIST Webbook
ie	5.58 ± 0.00	eV	NIST Webbook
ie	5.60 ± 0.10	eV	NIST Webbook
ie	5.50 ± 0.70	eV	NIST Webbook
ie	6.90 ± 1.20	eV	NIST Webbook
ie	5.58	eV	NIST Webbook
ie	5.55 ± 0.05	eV	NIST Webbook
ie	5.51 ± 0.09	eV	NIST Webbook
ie	5.58	eV	NIST Webbook
ie	5.58 ± 0.00	eV	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.77362e+01
Coeff. B	-4.85776e+04
Coeff. C	-3.39800e+01
Temperature range (K), min.	1923.15
Temperature range (K), max.	3737.15

Sources

The standard enthalpy of formation of superionic solid electrolyte $Li_7La_3Zr_2O_{12}$:	https://www.doi.org/10.1016/j.tca.2017.09.019
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7439910&Units=SI
Thermochemistry of $La_{1-x}Ln_xPO_4$-monazites (Ln = Gd, Eu):	https://www.doi.org/10.1016/j.jct.2016.11.003
Enthalpy of Formation of $Ln_2O_2CO_3$ II (Ln = La, Nd, Eu) and Thermodynamics of Decomposition Equilibria:	https://www.doi.org/10.1016/j.tca.2012.09.036
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Liquid-liquid equilibrium in the lithium-lanthanum system:	https://www.doi.org/10.1016/j.tca.2016.06.021
Thermodynamic investigation of thorium and strontium substituted monazite solid solution:	https://www.doi.org/10.1016/j.tca.2019.01.031
Thermodynamic properties of ternary Me-Ga-In (Me = La, U) alloys in a fused $GaInLiCl-KCl$ system:	https://www.doi.org/10.1016/j.jct.2018.10.014
Investigation in the variation of Gibbs energy of formation of RE_6UO_{12} (RE = La, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Tm, Yb, Lu) along the 4f series:	https://www.doi.org/10.1016/j.jct.2019.06.030

Legend

affp:	Proton affinity
basg:	Gas basicity
ea:	Electron affinity
ie:	Ionization energy
pvap:	Vapor pressure