lutetium

Inchi: InChI=1S/Lu
InchiKey: OHSVLFRHMCKCQY-UHFFFAOYSA-N
Formula: Lu
SMILES: [Lu]
Mol. weight [g/mol]: 174.97
CAS: 7439-94-3

Physical Properties

Property code	Value	Unit	Source
affp	992.00	kJ/mol	NIST Webbook
basg	970.60	kJ/mol	NIST Webbook
ea	0.34 ± 0.01	eV	NIST Webbook
ie	5.43 ± 0.00	eV	NIST Webbook
ie	5.20 ± 0.50	eV	NIST Webbook
ie	5.30 ± 0.10	eV	NIST Webbook
ie	5.43	eV	NIST Webbook
ie	5.43 ± 0.00	eV	NIST Webbook
ie	5.43	eV	NIST Webbook
ie	5.32 ± 0.05	eV	NIST Webbook
ie	5.41 ± 0.02	eV	NIST Webbook
ie	5.43 ± 0.00	eV	NIST Webbook
ie	5.30 ± 0.30	eV	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.60191e+01
Coeff. B	-4.01165e+04
Coeff. C	-1.56400e+02
Temperature range (K), min.	1873.15
Temperature range (K), max.	3675.15

Sources

Investigation in the variation of Gibbs energy of formation of RE6UO12 (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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7439943&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

Legend

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