samarium

Inchi: InChI=1S/Sm
InchiKey: KZUNJOHGWZRPMI-UHFFFAOYSA-N
Formula: Sm
SMILES: [Sm]
Mol. weight [g/mol]: 150.36
CAS: 7440-19-9

Physical Properties

Property code	Value	Unit	Source
ie	5.64 ± 0.00	eV	NIST Webbook
ie	5.64	eV	NIST Webbook
ie	5.64 ± 0.00	eV	NIST Webbook
ie	5.64 ± 0.00	eV	NIST Webbook
ie	5.64 ± 0.00	eV	NIST Webbook
ie	5.64 ± 0.00	eV	NIST Webbook
ie	5.50	eV	NIST Webbook
ie	5.60 ± 0.10	eV	NIST Webbook
ie	5.61 ± 0.05	eV	NIST Webbook
ie	5.56 ± 0.10	eV	NIST Webbook
ie	5.63 ± 0.02	eV	NIST Webbook
ie	6.15 ± 0.05	eV	NIST Webbook
ie	5.70 ± 0.02	eV	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.34681e+01
Coeff. B	-1.66773e+04
Coeff. C	-1.82670e+02
Temperature range (K), min.	973.15
Temperature range (K), max.	2273.15

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7440199&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Synthesis, structure, and thermodynamics of a lanthanide coordination compound incorporating 5-nitroisophthalic acid:	https://www.doi.org/10.1016/j.jct.2012.06.029
Thermodynamic stability of RNi2 Laves phases:	https://www.doi.org/10.1016/j.jct.2013.05.044
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

Legend

ie:	Ionization energy
pvap:	Vapor pressure