gadolinium

Inchi: InChI=1S/Gd
InchiKey: UIWYJDYFSGRHKR-UHFFFAOYSA-N
Formula: Gd
SMILES: [Gd]
Mol. weight [g/mol]: 157.25
CAS: 7440-54-2

Physical Properties

Property code	Value	Unit	Source
ie	6.15 ± 0.00	eV	NIST Webbook
ie	6.15	eV	NIST Webbook
ie	6.15 ± 0.00	eV	NIST Webbook
ie	6.15 ± 0.00	eV	NIST Webbook
ie	6.10 ± 0.60	eV	NIST Webbook
ie	6.15 ± 0.00	eV	NIST Webbook
ie	6.30 ± 0.60	eV	NIST Webbook
ie	6.20 ± 0.10	eV	NIST Webbook
ie	6.14 ± 0.02	eV	NIST Webbook
ie	6.16 ± 0.05	eV	NIST Webbook
ie	5.98 ± 0.10	eV	NIST Webbook
ie	6.73 ± 0.09	eV	NIST Webbook
ie	6.73 ± 0.09	eV	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.66235e+01
Coeff. B	-4.17353e+04
Coeff. C	-6.25500e+01
Temperature range (K), min.	1836.15
Temperature range (K), max.	3535.15

Sources

Thermodynamic stability of RNi2 Laves phases:	https://www.doi.org/10.1016/j.jct.2013.05.044
Thermochemistry of La1-xLnxPO4-monazites (Ln = Gd, Eu):	https://www.doi.org/10.1016/j.jct.2016.11.003
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
Thermochemical Analysis on Rare Earth Complexes of Gadolinium with Salicylic acid and 8-hydroxyquinoline:	https://www.doi.org/10.1016/j.tca.2012.08.027
Gadolinium:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7440542&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
High temperature calorimetric examination of enthalpies of mixing in liquid (gadolinium germanium manganese) alloys:	https://www.doi.org/10.1016/j.jct.2005.09.002

Legend

ie:	Ionization energy
pvap:	Vapor pressure