manganese

Other names: manganese element
Inchi: InChI=1S/Mn
InchiKey: PWHULOQIROXLJO-UHFFFAOYSA-N
Formula: Mn
SMILES: [Mn]
Mol. weight [g/mol]: 54.94
CAS: 7439-96-5

Physical Properties

Property code	Value	Unit	Source
affp	797.30	kJ/mol	NIST Webbook
basg	774.40	kJ/mol	NIST Webbook
ie	7.43 ± 0.00	eV	NIST Webbook
ie	7.43 ± 0.00	eV	NIST Webbook
ie	7.43	eV	NIST Webbook
ie	7.43 ± 0.00	eV	NIST Webbook
ie	7.43	eV	NIST Webbook
ie	7.43	eV	NIST Webbook
ie	7.43	eV	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.52661e+01
Coeff. B	-2.26890e+04
Coeff. C	-2.04920e+02
Temperature range (K), min.	1228.15
Temperature range (K), max.	2333.15

Sources

Crystal structure and thermochemical properties of a novel coordination compound manganese D-gluconate tetrahydrate:	https://www.doi.org/10.1016/j.jct.2014.03.009
Enthalpy of formation of Li1+xMn2-xO4 (0 less than x less than 0.1) spinel phases:	https://www.doi.org/10.1016/j.tca.2014.11.003
Calorimetric method for determining the thermochemical energy storage capacities of redox metal oxides:	https://www.doi.org/10.1016/j.tca.2019.01.008
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7439965&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

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