iridium

Inchi: InChI=1S/Ir
InchiKey: GKOZUEZYRPOHIO-UHFFFAOYSA-N
Formula: Ir
SMILES: [Ir]
Mol. weight [g/mol]: 192.22
CAS: 7439-88-5

Physical Properties

Property code	Value	Unit	Source
ea	1.56 ± 0.00	eV	NIST Webbook
ea	1.57 ± 0.01	eV	NIST Webbook
ie	9.10	eV	NIST Webbook
ie	9.10	eV	NIST Webbook
ie	8.87 ± 0.05	eV	NIST Webbook
ie	8.80 ± 0.70	eV	NIST Webbook
ie	9.10 ± 0.10	eV	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
srf	2.29	N/m	2373.00	Thermophysical Property Measurements of Liquid and Supercooled Iridium by Containerless Methods
srf	2.28	N/m	2423.00	Thermophysical Property Measurements of Liquid and Supercooled Iridium by Containerless Methods

srf	2.27	N/m	2473.00	Thermophysical Property Measurements of Liquid and Supercooled Iridium by Containerless Methods
srf	2.26	N/m	2523.00	Thermophysical Property Measurements of Liquid and Supercooled Iridium by Containerless Methods
srf	2.25	N/m	2573.00	Thermophysical Property Measurements of Liquid and Supercooled Iridium by Containerless Methods
srf	2.25	N/m	2623.00	Thermophysical Property Measurements of Liquid and Supercooled Iridium by Containerless Methods
srf	2.24	N/m	2673.00	Thermophysical Property Measurements of Liquid and Supercooled Iridium by Containerless Methods
srf	2.23	N/m	2723.00	Thermophysical Property Measurements of Liquid and Supercooled Iridium by Containerless Methods
srf	2.22	N/m	2773.00	Thermophysical Property Measurements of Liquid and Supercooled Iridium by Containerless Methods

srf	2.21	N/m	2833.00	Thermophysical Property Measurements of Liquid and Supercooled Iridium by Containerless Methods

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	2.01687e+01
Coeff. B	-7.12296e+04
Coeff. C	-8.24700e+01
Temperature range (K), min.	2713.15
Temperature range (K), max.	4659.15

Sources

The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Thermophysical Property Measurements of Liquid and Supercooled Iridium by Containerless Methods:	https://www.doi.org/10.1007/s10765-005-5585-3
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7439885&Units=SI

Legend

ea:	Electron affinity
ie:	Ionization energy
pvap:	Vapor pressure
srf:	Surface Tension