

Osmium

Inchi:	InChI=1S/Os
InchiKey:	SYQBFIAQOQZEGI-UHFFFAOYSA-N
Formula:	Os
SMILES:	[Os]
Mol. weight [g/mol]:	190.23
CAS:	7440-04-2

Physical Properties

Property code	Value	Unit	Source
ea	1.08 ± 0.00	eV	NIST Webbook
ie	8.70	eV	NIST Webbook
ie	8.70	eV	NIST Webbook
ie	8.15 ± 0.09	eV	NIST Webbook
ie	8.70	eV	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
dvisc	0.0074000	Pa×s	3265.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation
dvisc	0.0072000	Pa×s	3290.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation
dvisc	0.0070000	Pa×s	3306.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation

dvisc	0.0070000	Pa×s	3315.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation	
dvisc	0.0067000	Pa×s	3340.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation	
dvisc	0.0065000	Pa×s	3365.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation	
dvisc	0.0063000	Pa×s	3390.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation	
dvisc	0.0061000	Pa×s	3415.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation	
dvisc	0.0060000	Pa×s	3440.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation	
dvisc	0.0058000	Pa×s	3465.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation	
dvisc	0.0056000	Pa×s	3490.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation	
dvisc	0.0055000	Pa×s	3515.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation	
dvisc	0.0053000	Pa×s	3542.00	Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation	

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	2.04708e+01
Coeff. B	-8.00173e+04
Coeff. C	-2.37540e+02
Temperature range (K), min.	2873.15
Temperature range (K), max.	5673.15

Sources

The Yaws Handbook of Vapor
Pressure:
NIST Webbook:

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>
<http://webbook.nist.gov/cgi/cbook.cgi?ID=C7440042&Units=SI>

Cheméo Relay (1.0):

Cheméo Relay (1.0, beta):

Viscosity of molten Mo, Ta, Os, Re, and
W measured by electrostatic levitation: <https://www.doi.org/10.1016/j.jct.2013.05.036>

Legend

dvisc: Dynamic viscosity
ea: Electron affinity
ie: Ionization energy
pvap: Vapor pressure

Latest version available from:

<https://www.chemeo.com/cid/23-083-4/Osmium.pdf>

Generated by Cheméo on 2026-07-27 04:56:01.366086376 +0000 UTC m=+53787.400201606.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.