rhenium

Inchi: InChl=1S/Re

InchiKey: WUAPFZMCVAUBPE-UHFFFAOYSA-N

 Formula:
 Re

 SMILES:
 [Re]

 Mol. weight [g/mol]:
 186.21

 CAS:
 7440-15-5

Physical Properties

| Property code | Value | Unit | Source |
|---------------|-----------------|------|--------------|
| ie | 7.88 | eV | NIST Webbook |
| ie | 7.88 | eV | NIST Webbook |
| ie | 7.76 ± 0.03 | eV | NIST Webbook |
| ie | 7.88 | eV | NIST Webbook |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|-----------|------|-----------------|---|
| dvisc | 0.0149000 | Paxs | 3034.00 | Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation |
| dvisc | 0.0146000 | Paxs | 3050.00 | Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation |
| dvisc | 0.0139000 | Paxs | 3100.00 | Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation |
| dvisc | 0.0132000 | Paxs | 3150.00 | Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation |

| dvisc 0.0125000 Paxs 3200.00 Viscosity of molten Mo, Ta, Os. Re, and W measured by electrostatic levitation dvisc 0.0120000 Paxs 3250.00 Viscosity of molten Mo. Ta, Os. Re, and W measured by electrostatic levitation dvisc 0.0114000 Paxs 3300.00 Viscosity of molten Mo, Ta, Os. Re, and W measured by electrostatic levitation dvisc 0.0109000 Paxs 3350.00 Viscosity of molten Mo, Ta, Os. Re, and W measured by electrostatic levitation dvisc 0.0104000 Paxs 3400.00 Viscosity of molten Mo, Ta, Os. Re, and W measured by electrostatic levitation dvisc 0.0100000 Paxs 3450.00 Viscosity of molten Mo, Ta, Os. Re, and W measured by electrostatic levitation dvisc 0.0099000 Paxs 3459.00 Viscosity of molten Mo, Ta, Os. Re, and W measured by electrostatic levitation levitation dvisc 0.0096000 Paxs 3500.00 Viscosity of molten Mo, Ta, Os. Re, and W measured by electrostatic levitation dvisc 0.0092000 Paxs 3500.00 Viscosity of molten Mo, Ta, Os. Re, and W measured by electrostatic levitation dvisc 0.0088000 Paxs 3600.00 Viscosity of molten Mo, Ta, Os. Re, and W measured by electrostatic levitation < | | | | | | |
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| molten Mó, Ta, Os, Re, and W measured by electrostatic levitation dvisc 0.0088000 Paxs 3600.00 Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic | dvisc | 0.0096000 | Paxs | 3500.00 | molten Mo, Ta, Os, Re, and W measured by electrostatic | |
| molten Mó, Ta, Os, Re, and W measured by electrostatic | dvisc | 0.0092000 | Paxs | 3550.00 | molten Mo, Ta, Os, Re, and W measured by electrostatic | |
| | dvisc | 0.0088000 | Paxs | 3600.00 | molten Mo, Ta, Os, Re, and W measured by electrostatic | |

| dvisc | 0.0085000 | Paxs | 3650.00 | Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation | |
|-------|-----------|------|---------|---|--|
| dvisc | 0.0084000 | Paxs | 3675.00 | Viscosity of molten Mo, Ta, Os, Re, and W measured by electrostatic levitation | |

Correlations

Information

Temperature range (K), max.

| Property code | pvap |
|-----------------------------|-------------------------|
| Equation | ln(Pvp) = A + B/(T + C) |
| Coeff. A | 1.86540e+01 |
| Coeff. B | -8.02185e+04 |
| Coeff. C | -1.53810e+02 |
| Temperature range (K), min. | 3303.15 |

Value

5954.15

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C7440155&Units=SI

https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure The Yaws Handbook of Vapor

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

Legend

dvisc: Dynamic viscosity ie: Ionization energy pvap: Vapor pressure

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