

niobium

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|----------------------|-----------------------------|
| Inchi: | InChI=1S/Nb |
| InchiKey: | GUCVJGMIXFAOAE-UHFFFAOYSA-N |
| Formula: | Nb |
| SMILES: | [Nb] |
| Mol. weight [g/mol]: | 92.91 |
| CAS: | 7440-03-1 |

Physical Properties

| Property code | Value | Unit | Source |
|---------------|--------------|------|--------------|
| ea | 0.89 ± 0.03 | eV | NIST Webbook |
| ie | 6.76 ± 0.00 | eV | NIST Webbook |
| ie | 6.76 | eV | NIST Webbook |
| ie | 6.76 ± 0.00 | eV | NIST Webbook |
| ie | 6.61 ± 0.05 | eV | NIST Webbook |
| ie | 10.10 ± 1.00 | eV | NIST Webbook |
| ie | 6.88 | eV | NIST Webbook |

Correlations

| Information | Value |
|-----------------------------|-------------------------------|
| Property code | pvap |
| Equation | $\ln(P_{vp}) = A + B/(T + C)$ |
| Coeff. A | 2.08389e+01 |
| Coeff. B | -8.10265e+04 |
| Coeff. C | -2.19300e+01 |
| Temperature range (K), min. | 2942.15 |
| Temperature range (K), max. | 5013.15 |

Sources

Gibbs Energy of Formation of Eu3O4 and EuO: <https://www.doi.org/10.1021/acs.jced.5b00728>

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C7440031&Units=SI>

The Yaws Handbook of Vapor Pressure:

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>

Legend

ea: Electron affinity
ie: Ionization energy
pvap: Vapor pressure

Latest version available from:

<https://www.chemeo.com/cid/63-493-5/niobium.pdf>

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