

cerium

Inchi: InChI=1S/Ce
InchiKey: GWXLDORMOJMVQZ-UHFFFAOYSA-N
Formula: Ce
SMILES: [Ce]
Mol. weight [g/mol]: 140.12
CAS: 7440-45-1

Physical Properties

Property code	Value	Unit	Source
ea	0.57 ± 0.02	eV	NIST Webbook
ea	0.63 ± 0.01	eV	NIST Webbook
ea	0.65 ± 0.03	eV	NIST Webbook
ea	0.66 ± 0.10	eV	NIST Webbook
ie	5.40 ± 0.10	eV	NIST Webbook
ie	5.54	eV	NIST Webbook
ie	5.54 ± 0.00	eV	NIST Webbook
ie	5.54 ± 0.00	eV	NIST Webbook
ie	5.54 ± 0.00	eV	NIST Webbook
ie	5.54 ± 0.00	eV	NIST Webbook
ie	5.54 ± 0.00	eV	NIST Webbook
ie	6.00 ± 0.50	eV	NIST Webbook
ie	5.60 ± 0.50	eV	NIST Webbook
ie	5.90 ± 0.60	eV	NIST Webbook
ie	5.70 ± 0.30	eV	NIST Webbook
ie	5.90 ± 0.40	eV	NIST Webbook
ie	6.00 ± 0.50	eV	NIST Webbook
ie	5.47 ± 0.02	eV	NIST Webbook
ie	5.54 ± 0.06	eV	NIST Webbook
ie	5.60 ± 0.05	eV	NIST Webbook

Correlations

Information	Value
Property code	pvap

Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.76600e+01
Coeff. B	-4.79240e+04
Coeff. C	-4.14700e+01
Temperature range (K), min.	1992.15
Temperature range (K), max.	3716.15

Sources

The Yaws Handbook of Vapor

Pressure:

Standard enthalpies of formation of
Ce-Au congruent compounds (CeAu,
CeAu₂, and Ce₁₄Au₅₁):

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

<https://www.doi.org/10.1016/j.jct.2012.02.029>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C7440451&Units=SI>

Legend

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

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