

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	5.54 ± 0.00	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	5.40 ± 0.10	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

Cheméo Relay (1.0, beta):

Standard enthalpies of formation of
Ce-Au congruent compounds (CeAu,
CeAu₂ and Ce₁₄Au₅₁). Vapor
Pressure:
NIST Webbook:

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

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

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

Cheméo Relay (1.0):

Legend

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

Latest version available from:

<https://www.chemeo.com/cid/38-154-9/Cerium.pdf>

Generated by Cheméo on 2026-07-27 01:00:13.396942401 +0000 UTC m=+39639.431057611.

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