

Cobaltocene

Other names: bis(.eta.-cyclopentadienyl)cobalt
bis(cyclopentadienyl)cobalt(II)
bis- («eta»
dicyclopentadienylcobalt

Inchi: InChI=1S/2C5H5.Co/c2*1-2-4-5-3-1;/h2*1-5H;
InchiKey: PXFGMRZPRDJDEK-UHFFFAOYSA-N
Formula: C10H10Co
SMILES: C12C3C4C5C1[Co]23451678C2C1C6C7C28
Mol. weight [g/mol]: 189.12
CAS: 1277-43-6

Physical Properties

Property code	Value	Unit	Source
chs	-5838.80 ± 2.10	kJ/mol	NIST Webbook
hf	309.00 ± 2.50	kJ/mol	NIST Webbook
hf	277.00 ± 4.00	kJ/mol	NIST Webbook
hfs	236.90 ± 2.50	kJ/mol	NIST Webbook
hfs	205.00 ± 4.00	kJ/mol	NIST Webbook
hfus	17.80	kJ/mol	Vapor Pressures and Sublimation Enthalpies of Nickelocene and Cobaltocene Measured by Thermogravimetry
hsub	72.10 ± 0.10	kJ/mol	NIST Webbook
hsub	70.30 ± 4.20	kJ/mol	NIST Webbook
ie	5.70 ± 0.20	eV	NIST Webbook
ie	6.00 ± 0.10	eV	NIST Webbook
ie	6.00 ± 0.10	eV	NIST Webbook
ie	6.20 ± 0.10	eV	NIST Webbook
ie	5.55	eV	NIST Webbook
ie	5.56	eV	NIST Webbook
ss	236.00	J/molxK	NIST Webbook
ss	236.10	J/molxK	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cps	197.50	J/mol×K	298.15	NIST Webbook
cps	197.30	J/mol×K	298.15	NIST Webbook

Sources

Vapor Pressures and Sublimation
Enthalpies of Nickelocene and
Cobaltocene Measured by
Thermogravimetry:

<https://www.doi.org/10.1021/je200815v>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C1277436&Units=SI>

Legend

chs:	Standard solid enthalpy of combustion
cps:	Solid phase heat capacity
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hsub:	Enthalpy of sublimation at standard conditions
ie:	Ionization energy
ss:	Solid phase molar entropy at standard conditions

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