Graphite

Inchi:	InChI=1S/C
InchiKey:	OKTJSMMVPCPJKN-UHFFFAOYSA-N
Formula:	C
SMILES:	[C]
Mol. weight [g/mol]:	12.01
CAS:	7782-42-5

Physical Properties

Property code	Value	Unit	Source
pt	10200.00 ± 1500.00	kPa	NIST Webbook
ss	5.74 ± 0.10	J/mol×K	NIST Webbook
ss	5.51	J/mol×K	NIST Webbook
ss	6.24	J/mol×K	NIST Webbook
ss	5.40	J/mol×K	NIST Webbook
ss	5.47	J/mol×K	NIST Webbook
ss	5.94	J/mol×K	NIST Webbook
ss	5.64	J/mol×K	NIST Webbook
ss	5.43	J/mol×K	NIST Webbook
ss	5.43	J/mol×K	NIST Webbook
ss	5.69	J/mol×K	NIST Webbook
tt	5000.00 ± 300.00	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cps	8.23	J/mol×K	298.00	NIST Webbook
cps	10.05	J/mol×K	300.00	NIST Webbook
cps	8.43	J/mol×K	300.00	NIST Webbook
cps	8.62	J/mol×K	300.00	NIST Webbook
cps	8.11	J/mol×K	298.15	NIST Webbook
cps	8.12	J/mol×K	298.00	NIST Webbook
cps	8.98	J/mol×K	298.15	NIST Webbook
cps	8.47	J/mol×K	298.15	NIST Webbook
cps	8.05	J/mol×K	298.15	NIST Webbook

cps	8.05	J/mol×K	298.15	NIST Webbook
cps	8.58	J/mol×K	300.00	NIST Webbook
cps	8.94	J/mol×K	298.15	NIST Webbook
cps	7.84	J/mol×K	298.15	NIST Webbook
cps	8.53	J/mol×K	298.15	NIST Webbook
cps	8.50	J/mol×K	293.50	NIST Webbook
rhos	1804.00	kg/m3	298.00	A new numerical method and modified apparatus for the simultaneous evaluation of thermo-physical properties above 1500 K: A case study on isostatically pressed graphite

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	2.91297e+01
Coeff. B	-9.60247e+04
Coeff. C	7.45000e+00
Temperature range (K), min.	2839.00
Temperature range (K), max.	3908.00

Sources

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Legend

cps:	Solid phase heat capacity
pt:	Triple Point Pressure

pvap:	Vapor pressure
rhos:	Solid Density
ss:	Solid phase molar entropy at standard conditions
tt:	Triple Point Temperature

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