Benzo[g]phenanthro[3,4-c:6,5-c']diphenanthrene[

Other names: Benzo[g[phenanthro[3,4-c:6,5-c']diphenanthrene
Inchi: InChI=1S/C42H24/c1-3-7-34-25(5-1)9-11-27-13-15-29-17-19-31-21-23-33-24-22-32-20-1
InchiKey: DZNSHUKRWMZMLS-UHFFFAOYSA-N
Formula: C42H24
SMILES: c1ccc2c(c1)ccc1ccc3ccc4ccc5ccc6ccc7ccc8ccc9ccccc9c8c7c6c5c4c3c12
Mol. weight [g/mol]: 528.64
CAS: 57520-29-3

Physical Properties

Property code	Value	Unit	Source
gf	1297.98	kJ/mol	Joback Method
hf	954.19	kJ/mol	Joback Method
hfus	68.64	kJ/mol	Joback Method
hvap	131.42	kJ/mol	Joback Method
ie	6.99	eV	NIST Webbook
log10ws	-17.71		Crippen Method
logp	12.065		Crippen Method
mcvol	403.740	ml/mol	McGowan Method
pc	1245.09	kPa	Joback Method
tb	1397.70	K	Joback Method
tc	1712.86	K	Joback Method
tf	983.98	K	Joback Method
vc	1.577	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1540.99	J/mol×K	1397.70	Joback Method
cpg	1607.01	J/mol×K	1450.23	Joback Method
cpg	1681.64	J/mol×K	1502.75	Joback Method
cpg	1765.78	J/mol×K	1555.28	Joback Method
cpg	1860.33	J/mol×K	1607.80	Joback Method
cpg	1966.22	J/mol×K	1660.33	Joback Method
cpg	2084.34	J/mol×K	1712.86	Joback Method

dvisc	0.0160267	Pa×s	983.98	Joback Method
dvisc	0.0147862	Pa×s	1052.93	Joback Method
dvisc	0.0137775	Pa×s	1121.89	Joback Method
dvisc	0.0129431	Pa×s	1190.84	Joback Method
dvisc	0.0122427	Pa×s	1259.79	Joback Method
dvisc	0.0116472	Pa×s	1328.75	Joback Method
dvisc	0.0111354	Pa×s	1397.70	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C57520293&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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