D-Leucine

Other names:	(R)-(-)-Leucine
	(S)-(+)-leucine
	(S)-2-amino-4-methylpentanoic acid
	(S)-2-amino-4-methylvaleric acid
	(S)-leucine
	.alpha.-amino-.gamma.-methylvaleric acid
	.alpha.-aminoisocaproic acid
	4-methyl-L-norvaline
	L-(+)-leucine
	L-.alpha.-aminoisocaproic acid
	L-leucine
	Leucine, D-
Inchi:	InChI=1S/C6H13NO2/c1-4(2)3-5(7)6(8)9/h4-5H,3,7H2,1-2H3,(H,8,9)/t5-/m0/s1
InchiKey:	ROHFNLRQFUQHCH-YFKPBYRVSA-N
Formula:	C6H13NO2
SMILES:	CC(C)CC(N)C(=O)O
Mol. weight [g/mol]:	131.17
CAS:	328-38-1

Physical Properties

Property code	Value	Unit	Source
chs	-3581.40 ± 0.84	kJ/mol	NIST Webbook
gf	-204.53	kJ/mol	Joback Method
hf	-408.75	kJ/mol	Joback Method
hfs	-637.56 ± 0.84	kJ/mol	NIST Webbook
hfus	15.13	kJ/mol	Joback Method
hvap	62.24	kJ/mol	Joback Method
log10ws	-0.74		Crippen Method
logp	0.444		Crippen Method
mcvol	112.820	ml/mol	McGowan Method
pc	4077.71	kPa	Joback Method
tb	554.38	K	Joback Method
tc	743.19	K	Joback Method
tf	321.39	K	Joback Method
vc	0.413	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	275.71	J/mol×K	554.38	Joback Method
cpg	285.39	J/mol×K	585.85	Joback Method
cpg	294.59	J/mol×K	617.32	Joback Method
cpg	303.34	J/mol×K	648.79	Joback Method
cpg	311.64	J/mol×K	680.26	Joback Method
cpg	319.50	J/mol×K	711.72	Joback Method
cpg	326.94	J/mol×K	743.19	Joback Method
psub	9.00e-04	kPa	420.70	Sublimation and vapour pressure estimation of l-leucine using thermogravimetric analysis
psub	2.90e-03	kPa	440.30	Sublimation and vapour pressure estimation of l-leucine using thermogravimetric analysis
psub	0.04	kPa	469.90	Sublimation and vapour pressure estimation of l-leucine using thermogravimetric analysis
psub	0.53	kPa	499.20	Sublimation and vapour pressure estimation of l-leucine using thermogravimetric analysis
psub	2.16	kPa	517.50	Sublimation and vapour pressure estimation of l-leucine using thermogravimetric analysis

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Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation

hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
psub:	Sublimation pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume