Phosphino radical

Inchi: InChI=1S/H2P/h1H2
InchiKey: FVZVCSNXTFCBQU-UHFFFAOYSA-N
Formula: H2P
SMILES: [PH2]
Mol. weight [g/mol]: 32.99
CAS: 13765-43-0

Physical Properties

Property code	Value	Unit	Source
affp	709.20	kJ/mol	NIST Webbook
basg	675.70	kJ/mol	NIST Webbook
ea	1.60	eV	NIST Webbook
ea	1.14 ± 0.21	eV	NIST Webbook
ea	1.26 ± 0.01	eV	NIST Webbook
ea	1.27 ± 0.01	eV	NIST Webbook
ea	0.96 ± 0.11	eV	NIST Webbook
ea	1.25 ± 0.03	eV	NIST Webbook
ea	1.30 ± 0.03	eV	NIST Webbook
ea	1.22	eV	NIST Webbook
hfpi	1090.00 ± 4.00	kJ/mol	NIST Webbook
ie	9.82 ± 0.00	eV	NIST Webbook
ie	9.83 ± 0.02	eV	NIST Webbook
ie	9.96	eV	NIST Webbook
ie	9.84 ± 0.01	eV	NIST Webbook
log10ws	3.50		Crippen Method
logp	0.326		Crippen Method
mcvol	29.170	ml/mol	McGowan Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C13765430&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

Legend

affp:	Proton affinity
basg:	Gas basicity
ea:	Electron affinity
hfpi:	Enthalpy of formation of positive ion at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume