

12.7: Appendix 3- Bond Enthalpies

Average single bond enthalpies (kJ/mol)

H-H 436	C-H 413	N-H 391	O-H 483	F-F 155
H-F 567	C-C 348	N-N 163	O-O 146	
H-Cl 431	C-N 293	N-O 201	O-F 190	Cl-F 253
H-Br 366	C-O 358	N-F 272	O-Cl 203	Cl-Cl 242
H-I 299	C-F 485	N-Cl 200	O-I 234	
	C-Cl 328	N-Br 243		Br-F 237
	C-Br 276		S-H 339	Br-Cl 218
	C-I 240	P-H 322	S-F 327	Br-Br 193
	C-S 259	P-F 490	S-Cl 253	
			S-Br 218	I-Cl 208
	Si-H 323		S-S 266	I-Br 175
	Si-Si 226			I-I 151
	Si-C 301			
	Si-O 368			
	Si-F 565			
	Si-Cl 464			

Average double bond enthalpies (kJ/mol)

C=C 614	N=N 418	O=O 495
C=N 615	N=O 607	S=O 523
C=O 799		S=S 418

Average triple bond enthalpies (kJ/mol)

C≡C 839	C≡N 891	N≡N 941	C≡O 1072
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