

**Diatomic Molecules (Dissociation Energy of Gaseous Molecules)**

H—H	435	F—F	155	O=O	495
H—F	565	Cl—Cl	240	N=O	605
H—Cl	430	Br—Br	190	N≡N	945
H—Br	365	I—I	150	C≡O	1070
H—I	295				

**Single Covalent Bonds (Average Values)**

H—C	415	C—C	345	Si—Si	225	N—N	160	O—O	145
H—N	390	C—N	305	Si—F	565	N—O	200	O—Si	450
H—O	460	C—O	360	Si—Cl	390	N—F	285	O—P	335
H—Si	320	C—Si	300	Si—Br	310	N—Cl	200	O—F	190
H—P	320	C—P	265	Si—N	320	P—P	210	O—Cl	220
H—S	365	C—S	270	Sn—Sn	145	P—F	490	O—Br	200
H—Te	240	C—F	485	Sn—Cl	315	P—Cl	320	S—O	265
		C—Cl	330			P—Br	270	S—F	285
		C—Br	275			P—I	185	S—S	240
		C—I	215			As—Cl	295	S—Cl	255

**Multiple Covalent Bonds (Average Values)**

C=C	615	N=N	420	C≡C	835
C≡N	615	N=O	605	C≡N	890
C=O	750 800†	O=P	545		
C=S	575	O=S	515		

\* All values are in kilojoules per mole (kJ/mol) and are rounded to the nearest 5 kJ/mol.

† C=O bond energy in CO<sub>2</sub>