

Some Bond Energies of Diatomic Molecules* and Average Bond Energies for Bonds in Polyatomic Molecules

Bond	Bond Energy (kJ/mol)	Bond	Bond Energy (kJ/mol)
H—H	436.4	C—S	255
H—N	393	C=S	477
H—O	460	N—N	193
H—S	368	N=N	418
H—P	326	N≡N	941.4
H—F	568.2	N—O	176
H—Cl	431.9	N—P	209
H—Br	366.1	O—O	142
H—I	298.3	O=O	498.7
C—H	414	O—P	502
C—C	347	O=S	469
C=C	620	P—P	197
C≡C	812	P=P	489
C—N	276	S—S	268
C=N	615	S=S	352
C≡N	891	F—F	156.9
C—O	351	Cl—Cl	242.7
C=O [†]	745	Br—Br	192.5
C—P	263	I—I	151.0

* Bond energies for diatomic molecules (in color) have more significant figures than bond energies for bonds in polyatomic molecules because the bond energies of diatomic molecules are directly measurable quantities and not averaged over many compounds.

[†] The C=O bond energy in CO₂ is 799 kJ/mol.