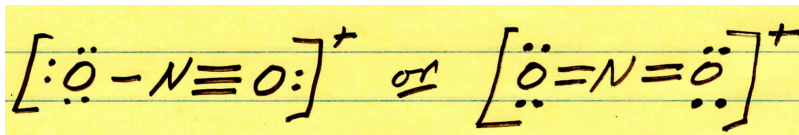


Complete the following assignment in your class notebook with the heading: Covalent compounds

1.) Draw the resonance structures for each of the following compounds:

- a. O_3 c. SeO_2
 b. CO_3^{2-} d. CHO_2^-

2.) Use the concept of formal charge to determine the most likely structure for NO_2^+ ,



3.) Use the table of bond energies below to calculate the energy needed to break all the bonds in the following:

- a. CH_3OH b. H_2CO_3 (an oxyacid) c. CH_3NH_2
 d. C_2BrH e. CHO_2^-

Bond Energies

Bond	Average bond energy (kJ/mol)	Bond	Average bond energy (kJ/mol)	Bond	Average bond energy (kJ/mol)	Bond	Average bond energy (kJ/mol)
H-H	436	C-C	346	C-C	346	C-O	358
F-F	159	C-N	305	C=C	612	C=O	732
Cl-Cl	243	C-O	358	C≡C	835	C≡O	1072
Br-Br	193	C-H	418	C-N	305	N-N	163
I-I	151	C-Cl	327	C=N	615	N=N	418
H-F	569	C-Br	285	C≡N	887	N≡N	945
H-Cl	432	N-N	163				
H-Br	366	N-H	386				
H-I	299	O-H	459				