Name: 10/23/08

Assignment #14: Covalent Bonds

1. What are the three main types of chemical bonds? Describe each one in terms of the elements that are needed to make the bond.

2. What are some of the physical properties that arise from covalent bonds?

3. Identify the type of bonds that are present in each of the following:

a. Calcium Carbonide	b. Strontium Chloride	c. Carbon Monoxide
d. Sulfur Tetrachloride	e. Iron	f. Lithium Fluoride
g. Bronze	h. Carbon octanitride	i. Water
j. Sodium Phosphide	k. Trihydrogen dichloride	l. Iron (II) Oxide

4. Write formulas for the following compounds:

a. Carbon Dioxide	b. Carbon Monoxide	c. Silicon Dioxide
d. Sulfur Tetrachloride	e. Diboron Trioxide	f. Sulfur pentachloride
g. Diphosphorous Pentoxide	h. Nitrogen trihydride (aka: Ammonia)	i. Iodine Pentafluoride
j. Carbon Trihydride (aka Methane)	k. Hydrogen Chloride	l. Selenium Bromide
m. Arsenic heptaphosphide	n. Hydrogen fluoride	m. Sulfur Dioxide

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4. Write the names of the following covalent compounds:

a. P_4S_5 b. SeF_6 c. Si_2Br_6

d. CH_4 e. SCl_4 f. B_2Si

g. NF_3 h. N_2O i. HBr

j. ICl_4 k. H_2O_2 l. C_5H_{10}

m. B_8N_4 n. H_2P_6 o. Si_3O_7

5. Find the molar mass of each of the following:

a. Carbon Monoxide b. Water c. Methane

d. Ammonia e. Iodine Hexabromide f. Hydrogen Iodide

g. Pentaboron trisilicate h. Dinitrogen Dioxide i. Silicon Dioxide

j. Trinitrogen Heptahydride k. Pentanitrogen tetrasilicide l. Hydrogen Chloride