

More Bonding Practice

Key

1. Use Bohr diagrams to indicate the valence electrons in the following elements:

a) Sulfur



b) Sodium

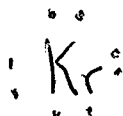


2. Use Dot structures to indicate the valence electrons in the following elements:

a) Phosphorus



b) Krypton



c) Calcium



3. Describe the type of chemical bond that would form within the following compounds:

a) B_2F_3 Covalent

c) Ti metallic

b) MgO Ionic

d) $AgNO_3$ Ionic

4. For the following elements, predict the CHARGE it would form when becoming an ion and decide if it is a CATION or an ANION

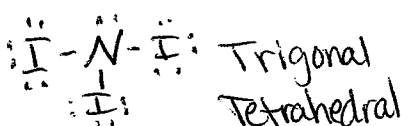
a) Potassium +1, cation

c) Bromine -1, anion

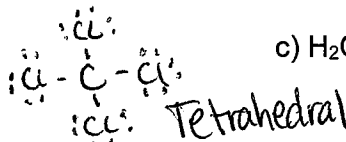
b) Nitrogen -3, anion

5. Draw the dot structures for the following compounds and describe the shape of the compounds:

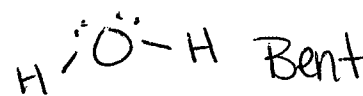
a) Nl_3



b) CCl_4



c) H_2O



7. Write the formulas or names for the following COVALENT compounds

a. Carbon dioxide CO_2

b. SiF_6 Silicon hexafluoride

c. Dichlorine heptoxide Cl_2O_7

d. P_2O_5 Diphosphorus pentoxide

e. Dinitrogen pentahydride N_2H_5

8. Write the names or formulas for the following IONIC compounds

a. Potassium hydroxide KOH

b. CuO Copper (II) oxide

c. Li_2SO_3 Lithium sulfite

d. $Co_2(CO_3)_3$ Cobalt (III) carbonate

e. Calcium permanganate $Ca(MnO_4)_2$

9. List how many atoms there are of each element.

a. Li_3N Li=3
N=1

b. $Mg_3(PO_4)_2$ Mg=3
P=2 O=8

c. $(NH_4)_2CrO_4$ N=2
H=8
Cr=1 O=4