

## Naming Compounds Practice Problems

### I. Identify the names of the following ionic compounds.

1. NaCl sodium chloride
2. MgCl<sub>2</sub> magnesium chloride
3. LiOH lithium hydroxide
4. H<sub>2</sub>O<sub>2</sub> hydrogen peroxide
5. Na<sub>2</sub>S sodium sulfide
6. Al<sub>2</sub>O<sub>3</sub> aluminum oxide
7. SrBr<sub>2</sub> strontium bromide
8. Cu<sub>2</sub>(SO<sub>4</sub>) copper (I) sulfate
9. Cr(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub> chromium (II) acetate
10. (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> ammonium sulfate

- ① Symbols
- ② Charges
- ③ Add "ide"

### II. Write the formulas for the following ionic compounds.

1. magnesium oxide MgO
2. potassium iodide KI
3. sodium sulfide Na<sub>2</sub>S
4. tin (II) fluoride SnF<sub>2</sub>
5. aluminum chloride AlCl<sub>3</sub>
6. iron (III) bromide FeBr<sub>3</sub>
7. calcium sulfate CaSO<sub>4</sub>
8. sodium hydroxide NaOH
9. potassium permanganate KMnO<sub>4</sub>
10. potassium dichromate K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>

- ① Symbols
- ② Charges
- ③ Cross-Over

- ① Symbols
- ② Greek prefixes
- ③ Add "ide" to 2<sup>nd</sup> element

III. Identify the names of the following covalent molecules.

1.  $\text{CO}_2$  carbon dioxide
2.  $\text{H}_2\text{O}$  dihydrogen monoxide
3.  $\text{CO}$  carbon monoxide
4.  $\text{PCl}_5$  phosphorus pentachloride
5.  $\text{P}_4\text{O}_6$  tetraphosphorus hexoxide
6.  $\text{SiO}_2$  silicon dioxide
7.  $\text{CCl}_4$  carbon tetrachloride
8.  $\text{N}_2\text{F}_2$  dinitrogen difluoride
9.  $\text{XeF}_2$  xenon difluoride
10.  $\text{Cl}_2\text{O}_7$  dichlorine heptoxide

IV. Write the formulas for the following <sup>molecules</sup> ionic compounds.

1. nitrogen tribromide  $\text{NBr}_3$
2. sulfur dioxide  $\text{SO}_2$
3. dichlorine monoxide  $\text{Cl}_2\text{O}$
4. dinitrogen tetrafluoride  $\text{N}_2\text{F}_4$
5. sulfur hexafluoride  $\text{SF}_6$
6. dihydrogen <sup>mono</sup>sulfide  $\text{H}_2\text{S}$
7. dinitrogen pentoxide  $\text{N}_2\text{O}_5$
8. carbon tetrabromide  $\text{CBr}_4$
9. diarsenic pentasulfide  $\text{As}_2\text{S}_5$
10. tetraphosphorus decasulfide  $\text{P}_4\text{S}_{10}$