

5.8 Formulas for Ionic Compounds P. 192-194

Always write the formula for the ionic compound formed by metal and non-metal

4 Steps

- write the symbols for the 2 elements (metal first)

$$\text{Ca I}$$
- look up the charges for each element & write it above the symbol.

$$\overset{+2}{\text{Ca}} \overset{-1}{\text{I}}$$
- Determine how many of each ion you need to balance it for zero

$$1(+2) + 2(-1) = 0$$
- use subscripts to show how many of each ion

$$\text{Ca I}_2$$
 Calcium Iodide

1) Ionic compound for Aluminum and Sulfur

$$\overset{+3}{\text{Al}} \overset{-2}{\text{S}} \rightarrow \text{Al}_2\text{S}_3$$

Aluminum Sulfide

2) Ionic compound for Nickel and Oxygen

Nickel(II) Ni^{+2} Nickel(III) Ni^{+3}

Nickel(II) Oxide Ni_2O_3 Nickel(III) Oxide Ni_2O_3

Write the formula for

A) Copper(I) chloride CuCl B) Copper(II) chloride CuCl_2

Write the name for the following:

① PbS_2 Lead(IV) sulfide B) PbS Lead(II) sulfide

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