

Check Homework - Worksheet



② 2

③ 8

④ 6

⑤ gain 2 electrons

$16p^+$

$16e^- + 2e^-$

$18e^-$

⑥ 2^-



1 lose 1 Li^+

$3p^+, 3e^-$

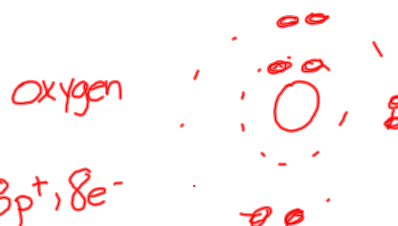
$3p^+, 2e^-$



2 lose 2 Mg^{2+}

$12p^+, 12e^-$

$12p^+, 10e^-$

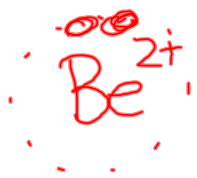


6 gain 2 O^{2-}

$8p^+, 8e^-$

$8p^+, 10e^-$

Beryllium
4p⁺, 4e⁻



Fluorine
9p⁺, 9e⁻



③ BeF₂

④ beryllium fluoride

Ionic compounds are made by elements transferring or sharing electrons.

- the further an e⁻ is away from the nucleus, the greater the possibility of it making a compound with another element
- the **outermost electrons** are involved in making compounds

Ex. aluminum and fluorine

How to Write an Ionic Compound

1. Write the symbols, with the metal always being written first.



2. Write the ionic charge above the symbol to indicate the stable ion that each element forms

3. Determine how many ions of each type you need so that the total ionic charge is zero.



4. Write the formula using subscripts to indicate the number of ions of each type.



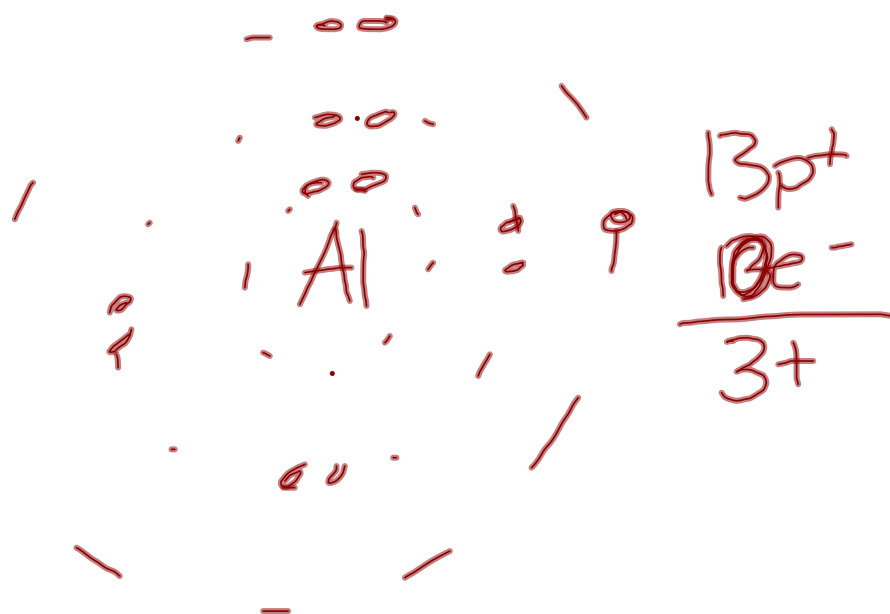
- when naming ionic compounds, the name of the metal remains the same but name of the nonmetal changes to an -ide ending

aluminum fluoride

- some metals have more than one charge
they are called **multi-valent ions**
- these elements are found in the middle block of the periodic table
the charge that is to be used is indicated in brackets with a Roman numeral
Ex. iron(III) oxide
 $\text{Fe}^{3+} \quad \text{O}^{2-}$
 Fe_2O_3

NOTE: If there is a common factor between the two charges, reduce!

Ex. $\text{Al}^{3+} \quad \text{N}^{3-}$



Ionic Compounds

Ex. sodium and oxygen

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Ex. $\text{Al}^{3+} \text{N}^{3-}$

Write the formulas and the names of the compounds formed by the combination of the elements:

- a) sodium and fluorine
- b) calcium and chlorine
- c) magnesium and oxygen

Homework

p.195 #1-10