

Thursday Nov 24

Answers to HW

Notes on Forming Compounds

Warm-Up

1. What would the charge be on an element that loses 2 e⁻ ?
a. +2 b. -2 c. 0
2. What would the charge be on an element that gains 1 e⁻ ?
a. +1 b. -1 c. 0
3. Metals tend to _____ electrons to become stable?
a. gain b. lose
4. What would phosphorous need to do to become stable?
a. lose 5 b. gain 3

pg 187 #5,6a-c,7a

Ionic Charges and Chemical Families
Worksheets B,C

Shortcut to determining Valance Electrons

rather than drawing the Bohr diagram each time you can determine the number of valance electrons by looking at the group #. (if it is a two digit number look at the 2nd number)

i.e. Group 1 = one e^- in its valance
Group 17 = seven e^- in its valance

Try These

How many valance electrons do each of the following elements have:

1. I (iodine)
2. Sc (scandium)
3. Sr (strontium)
4. Rb (rubidium)
5. Al (aluminum)

Compounds

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 (valance e^-)** are involved in making compounds

There are various compounds we will study:

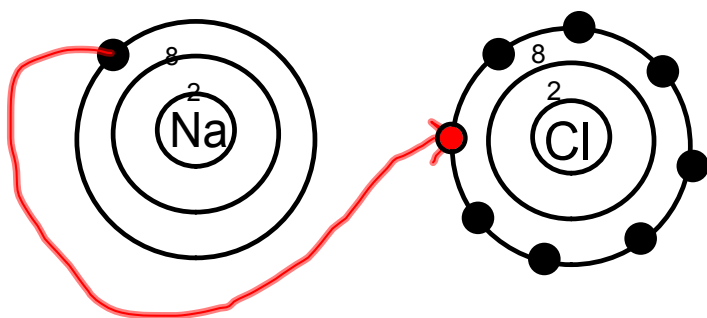
- Ionic
- Polyatomic
- Molecular

Ionic compounds are created from ions and are **composed of a metal and a nonmetal**

- electrons are transferred from the metal to the nonmetal
- the metal forms a positive ion and the nonmetal forms a negative ion
- once the transfer has taken place, the compound is neutral and has an overall charge of 0.
- also remember that when non-metals form ions their name changes to an -ide ending. i.e. chlorine = chloride

Example 1:
sodium and chlorine

Salt consists of **sodium (Na)** and **chlorine (Cl)**.



Charges on ions: Na^{1+} Cl^{1-}

Formula for compound: NaCl

Charge on Compound: zero (neutral)

Name of compound : sodium chloride

p. 189 #1,4

Attachments

S10 answers pg 187 #1-4.doc

answers forming ions WS2.notebook

answers pg 187 #5,6a-c,7a.notebook

answers ionic charges and families worksheet A,B,C.notebook