Chemistry (Math Notes)

Module #5

Ionic Compounds

A more accurate definition of an ionic compound is a compound that carries _____ions____, which are bound together because of _____opposite charges_____, like magnets.

Ionic Compounds can be formed in ____4____ ways.

1. metal and nonmetal
2. polyatomic and nonmetal
3. metal and polyatomic
4. polyatomic and polyatomic

EXAMPLES:

Covalent Compounds

There are _____2_____ types.

A polar covalent compound has _____fractional_____ charges on some or all of its atoms because the electrons are shared _____unevenly_____ between the atoms involved.

A purely covalent compound has no _____fractional_____ charges on any of its atoms because the electrons are shared _____evenly_____ between the atoms involved.

In order to be polar, a compound must have polar bonds AND these bonds cannot be of equal polarity and equal distribution in space.

The polarity of the bonds is determined by the _____charge_____ in _____electrons_____ of the atoms involved.

EXAMPLES:

Molecular Geometry

Molecules are not flat, but _3-d_. Lewis Structures represent a _3-d_ picture. A molecule's shape is defined by its _electrons_, which want to _repel_ each other because they are the same charge. We use a _dash_ (--) to represent the electrons.