Name IPC

Writing Chemical Formulas

Most compounds are either ionic or covalent and consist of two parts (binary). The general rule is to put the more metallic element first, the less metallic element second and <u>balance the</u> <u>charges to zero</u> by adding more ions or atoms. Remember to use subscripts to show the number ions or atoms used.

Writing Molecular Formulas (covalent)

When writing the chemical formulas for molecular compounds put the least electronegative element first followed by the more electronegative element and use subscripts to indicate the number of each atom present.

- ☞ Learn the Greek and Latin numeric prefixes.
- The Mono is usually dropped except in carbon monoxide.
- $\$ Some compounds have common names.

Example:

hydrogen chloride	(1H) (1Cl)	÷
dinitrogen tetroxide	(2N) (4O)	
carbon dioxide	(1C) (2O)	

Writing Ionic Formulas

When writing the chemical formula for ionic compounds put the **cation** first followed by the **anion** and use subscripts to indicate the number of each ion present.

- The Remember the <u>algebraic sum</u> of the ions' oxidation numbers <u>must equal zero</u>.
- *☞* Learn the polyatomic ions.
- The contract of the contract o

Example:

lithium chloride	$(Li^{+}) + (Cl^{-})$	(+1) + (-1) = 0	÷
iron(II) sulfate	$(Fe^{2+}) + (SO_4^{2-})$	(+2) + (-2) = 0	
calcium fluoride	$(Ca^{2+}) + (F^{-})$ $(Ca^{2+}) + 2(F^{-})$	$(+2) + (-1) \neq 0$ (+2) + 2(-1) = 0	.:

Copyright © 2020 by Darrell Causey, Jr. All Rights Reserved



Class Notes

POLYATOMIC IONS

Some compounds contain polyatomic ions that behave like monatomic ions. These compounds are named as though they were binary compounds. So you must know the names of the polyatomic ions.

EXAMPLE:

ammonium iodide ______ sodium hydroxide _____

PRACTICE

Directions: Write proper formula for the following compounds.

 _dinitrogen monoxide
 _lead(II) sulfide
 silicon dioxide
 _ammonium carbonate
 potassium sulfate
 _aluminum chlorate
 magnesium acetate
 sulfur difluoride
 nitrogen dioxide
 potassium nitrate
 aluminum hydroxide
 magnesium nitride
 _ sulfur trioxide
 _tin(II) nitrate

"Don't ask for things to get better, ask that YOU get better." -- Jim Rohn