

## Unit 4: Ch 8 – Nomenclature: Metallic & Molecular Compounds

### METALLIC COMPOUNDS:

#### ➤ DEFINITION –

- “SEA OF ELECTRONS” –

#### ➤ PROPERTIES OF METALS:

- \_\_\_\_\_ - Flow of currents or \_\_\_\_\_.
- \_\_\_\_\_ - Can be \_\_\_\_\_.
- \_\_\_\_\_ - Can be \_\_\_\_\_ into wire form.
- \_\_\_\_\_ - Held by \_\_\_\_\_.

### NOMENCLATURE: MOLECULAR COMPOUNDS:

#### ➤ MOLECULAR FORMULAS:

- \_\_\_\_\_ → **TWO** (or more) \_\_\_\_\_ that are \_\_\_\_\_ bonded.
  - Ex) \_\_\_\_\_ Ex) \_\_\_\_\_ Ex) \_\_\_\_\_
- Shows the \_\_\_\_\_ (actual) number of \_\_\_\_\_ within the \_\_\_\_\_.
  - Subscripts are \_\_\_\_\_ reduced.
    - Ex) \_\_\_\_\_

### DIATOMIC MOLECULES:

#### ➤ DEFINITION –

\_\_\_\_\_

### COVALENT BONDS:

#### ➤ DEFINITION –

## NAMING PREFIX SYSTEM:

# of Atoms	Prefix	# of Atoms	Prefix
1		6	
2		7	
3		8	
4		9	
5		10	

## NAMEING RULES:

- 1. Name \_\_\_\_\_ **non-metal** element by its \_\_\_\_\_ name.
- Ex) \_\_\_\_\_ = \_\_\_\_\_
- 2. \_\_\_\_\_ **non-metal** pattern: \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_
- Ex) \_\_\_\_\_ = \_\_\_\_\_
    - \_\_\_\_\_ atoms → \_\_\_\_\_ prefix
      - NAME: \_\_\_\_\_
- 3. \_\_\_\_\_ **non-metal** requires a \_\_\_\_\_ **ONLY** if \_\_\_\_\_ than one atom.
- NOTE: \_\_\_\_\_ **non-metal** \_\_\_\_\_ gets prefix, even if only \_\_\_\_\_ atom.
    - Ex) \_\_\_\_\_ = \_\_\_\_\_
    - Ex) \_\_\_\_\_ = \_\_\_\_\_
- 4. \_\_\_\_\_ or \_\_\_\_\_ at **END** of \_\_\_\_\_ is \_\_\_\_\_ **IF** the \_\_\_\_\_ non-metal begins with a \_\_\_\_\_.
- Ex) \_\_\_\_\_ = \_\_\_\_\_
  - Ex) \_\_\_\_\_ = \_\_\_\_\_

## PROPERTIES OF MOLECULAR (COVALENT) COMPOUNDS:

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

## PUTTING IT TOGETHER:

### ➤ IONIC COMPOUNDS:

- \_\_\_\_\_ + \_\_\_\_\_
- \_\_\_\_\_ AND \_\_\_\_\_
- \_\_\_\_\_ of valence electrons
- \_\_\_\_\_ Bonds

### ➤ MOLECULAR (COVALENT) COMPOUNDS:

- \_\_\_\_\_ + \_\_\_\_\_
- \_\_\_\_\_ system and \_\_\_\_\_
- \_\_\_\_\_ of valence electrons
- \_\_\_\_\_ Bonds

## PRACTICE EXAMPLES:

Ex #1)  $\text{BF}_3$  = \_\_\_\_\_

Ex #2)  $\text{N}_2\text{Br}_4$  = \_\_\_\_\_

Ex #3)  $\text{SO}_7$  = \_\_\_\_\_

Ex #4) Phosphorus Pentachloride = \_\_\_\_\_

Ex #5) Carbon Triiodide = \_\_\_\_\_

Ex #6) Dibromine Hexoxide = \_\_\_\_\_