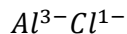


# C11 - 1.3 - Naming Ionic/Covalent/Multivalent/Polyatomic/Acid/Base Notes

**Ionic Compounds :** Metal/Non-metal

Metal 1st

Metal Non-metal-ide

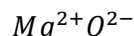


~~aluminum chlorine~~  
AlCl = aluminum chloride

ine → ide  
gen → ide  
on → ide  
xxx → ide

Boron → Boride  
Oxygen → Oxide  
Flourine → Flouride  
Sulfer → Sulfide

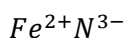
Exceptions to the naming\*:  
NaCl: Table Salt  
NH<sub>3</sub>: Ammonia  
O<sub>3</sub>: Ozone **etc!**



~~magnesium oxygen~~  
MgO = magnesium oxide

**Multi-valent Compounds:**

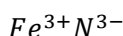
Multi-valent: More than one ionic charge



$Fe_3N_2 = \text{iron (II) nitride}$

Roman Numerals in brackets to the right of the element representing its charge being used.

I = 1	VI = 6
II = 2	VII = 7
III = 3	VIII = 8
IV = 4	IX = 9
V = 5	X = 10

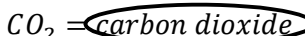


$FeN = \text{iron (III) nitride}$

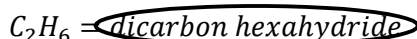
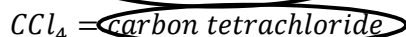
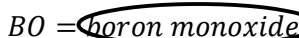
**Simplify**

**Covalent Compounds :** Non-metal/Non-metal

Non-metal Non-metal-ide



\* Monocarbon Dioxide



\*more metallic non-metal first.

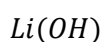
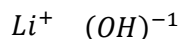
Why is October (Oct) the 10th month? Egyptians were wrong and Julius and Augustus Caesar inserted July and August.

Prefixes

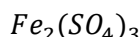
1 mono	6 hexa
2 di	7 hepta
3 tri	8 octa
4 tetra	9 nona
5 penta	10 deca

**Polyatomic Compounds**

See Polyatomic Table



lithium hydroxide

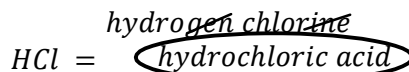


iron (III) sulphate

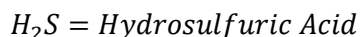
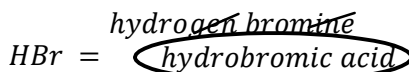
**Acids: tend to have an  $H^+$**

**sulphur vs sulfur**

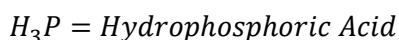
**Do not contain Oxygen**



gen  
ine → ic  
Add: acid

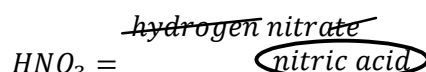


ur → uric



ous → oric

**Contain Oxygen**



~~Hydrogen~~  
**ate → ic**  
Add: acid



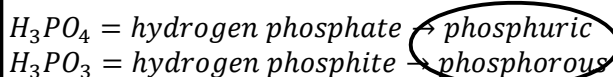
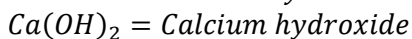
**ate → uric**



~~Hydrogen~~  
**ite → ous**  
Add: acid

**Bases : tend to have an  $OH^-$**

(Name as you would a polyatomic)



**ate → uric**  
**ite → ous**