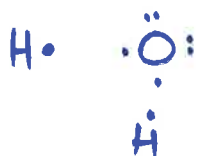


# 9/17 Notes LNL: Covalent & Acid Naming

## Covalent Compound

- nonmetals only (+ H)
- ex)  $\text{CO}_2$ ,  $\text{H}_2\text{O}$ ,  $\text{N}_2\text{O}$ ,  $\text{PCl}_5$
- no charges involved, because electrons are shared

ex)  $\text{H}_2\text{O}$



8 full shell  
(octet)

2 full shell

## Naming

- use prefix system
- Do not use "mono" on 1st element
- 2nd element end in -ide

$\text{CO}_2$  - carbon dioxide

$\text{N}_2\text{O}$  - dinitrogen monoxide

$\text{N}_2\text{O}_5$  - dinitrogen pentoxide

$\text{NO}_2$  - nitrogen dioxide



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Acid -  $\text{H}^+$  ion(s) in front of the formula  
(protons)



## Naming

<u>Anion (-)</u>	<u>Acid</u>
—ide	hydro—ic acid
—ate	—ic acid
—ite	—ous acid

$\text{HCl}^{-1}$   
chloride      hydrochloric acid

$\text{H}_2\text{S}$   
sulfide      hydrosulfuric acid

$\text{H}_2\text{SO}_4$   
sulfate      sulfuric acid

$\text{HNO}_2$   
nitrite      nitrous acid

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HF

hydrofluoric acid  
fluoride  $\text{F}^{-1}$

$\text{HClO}_3$  ← chloric acid  
chlorate  $\text{ClO}_3^{-1}$

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Grab Bag

C, I, A

$\text{CF}_4$  (C)

carbon tetrafluoride

$\text{Na}_2\text{CO}_3$  (I)

sodium carbonate

$\text{HBr}$  (A)

hydrobromic acid

$\text{AgOH}$  (I)

silver (I) hydroxide