

# Acids

Writing names and Formulas



# Acids

- Compounds that give off hydrogen ions when dissolved in water.
- Must have H in them.
- will always be some H next to an anion.
- The anion determines the name.

# Naming acids

- If the anion attached to hydrogen ends in **-ide**, put the prefix **hydro-** and change **-ide** to **-ic acid**
- $\text{HCl}$  - hydrogen ion and chloride ion
- hydrochloric acid
- $\text{H}_2\text{S}$  hydrogen ion and sulfide ion
- hydrosulfuric acid

# Naming Acids

- If the anion has oxygen in it, then it ends in -ate or -ite
- change the suffix -ate to -ic acid (use no prefix)
- $\text{HNO}_3$  Hydrogen and nitrate ions
- Nitric acid
- change the suffix -ite to -ous acid
- $\text{HNO}_2$  Hydrogen and nitrite ions
- Nitrous acid

# Name these

- **HF**                      **Hydrofluoric**
- **H<sub>3</sub>P**                      **Hydrophosphoric**
- **H<sub>2</sub>SO<sub>4</sub>**                      **Sulfuric**
- **H<sub>2</sub>SO<sub>3</sub>**                      **Sulfurous**
- **HCN**                      **Hydrocyanic**
- **H<sub>2</sub>CrO<sub>4</sub>**                      **Chromic**

# Writing Acid Formulas

- Hydrogen will always be first
- name will tell you the anion
- make the charges cancel out.
- Starts with hydro?- no oxygen, -ide
- no hydro?, -ate comes from -ic, -ite comes from -ous

# Write formulas for these

- hydroiodic acid
- acetic acid
- carbonic acid
- phosphorous acid
- hydrobromic acid

- hydroiodic acid      HI
- acetic acid       $\text{HC}_2\text{H}_3\text{O}_2$
- carbonic acid       $\text{H}_2\text{CO}_3$
- phosphorous acid       $\text{H}_3\text{PO}_3$
- hydrobromic acid      HBr