

# GENERAL CHEMISTRY

## STANDARD 12.2

**12.2: Classify a compound as a Bronsted-Lowry Acid or Base**

# DEFINITIONS

- **Bronsted-Lowry Acid:** Any compound that can donate a proton, or hydrogen ion ( $H^+$ ), to another compound
- **Bronsted-Lowry Base:** Any compound that can accept a proton from another compound

# EXAMPLES

- Examples of Bronsted-Lowry Acids:
  - HCl
  - $\text{H}_2\text{SO}_4$
  - $\text{HNO}_3$
  - HBr
- Examples of Bronsted-Lowry Bases:
  - NaOH
  - LiOH
  - $\text{Ca}(\text{OH})_2$
  - $\text{NH}_3$

# TRY IT YOURSELF

- Identify the following compounds as Bronsted-Lowry Acids or Bronsted-Lowry Bases:
  - $\text{Al(OH)}_3$
  - $\text{KOH}$
  - $\text{HNO}_3$
  - $\text{HBr}$
  - $\text{Mg(OH)}_2$
  - $\text{HNO}_3$
  - $\text{HI}$
  - $\text{NH}_3$

# TRY IT YOURSELF SOLUTIONS

- Identify the following compounds as Arrhenius Acids or Arrhenius Bases:



**Bronsted-Lowry Base**



**Bronsted-Lowry Base**



**Bronsted-Lowry Acid**



**Bronsted-Lowry Acid**



**Bronsted-Lowry Base**



**Bronsted-Lowry Acid**



**Bronsted-Lowry Acid**



**Bronsted-Lowry Base**