

Acids and Bases

Acids Donate Protons, Bases Accept Them

1. **Acids** (from Latin *acidus* which means "sour") compounds that release hydrogen ions (H⁺) into a solution

HCl Hydrogen Chlorine
Acid Ion Ion

Examples: H₂SO₄ is sulfuric acid CH₃OOH acetic (vinegar HNO₃ is nitric acid H₂CO₃ is carbonic acid

2. **Bases** (alkaline from Arabic *al-qali* which means "ashes") compounds that release hydroxide ions (OH⁻) into a solution



Examples: KOH is potassium hydroxide Ca(HO)₂ is calcium hydroxide

3. **Neutralization Reactions** occur when an acid chemically reacts with a base forming ionic salts and often water.

NaOH + HCl \longrightarrow NaCl + H₂O

4. **pH Scale** a numeric scale used to express the acidity of a solution

