

CHAPTER OVERVIEW

15: Acid–Base Equilibria

An General Chemistry Libretexts Textmap organized around the textbook

Principles of Modern Chemistry

by Oxtoby, Gillis, and Campion

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Acids and bases have been defined differently by three sets of theories. One is the Arrhenius definition, which revolves around the idea that acids are substances that ionize (break off) in an aqueous solution to produce hydrogen (H^+) ions while bases produce hydroxide (OH^-) ions in solution. On the other hand, the Bronsted-Lowry definition defines acids as substances that donate protons (H^+) whereas bases are substances that accept protons. Also, the Lewis theory of acids and bases states that acids are electron pair acceptors while bases are electron pair donors. Acids and bases can be defined by their physical and chemical observations.

[15.1: Classifications of Acids and Bases](#)

[15.2: Properties of Acids and Bases in Aqueous Solutions](#)

[15.3: Acid and Base Strength](#)

[15.4: Equilibria Involving Weak Acids and Bases](#)

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[15.6: Acid-Base Titration Curves](#)

[15.7: Polyprotic Acids](#)

[15.8: Organic Acids and Bases - Structure and Reactivity](#)

[15.9: A Deeper Look - Exact Treatment of Acid-Base Equilibria](#)

[15.E: Acid-Base Equilibria \(Exercises\)](#)

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