

CHAPTER OVERVIEW

2: POLAR COVALENT BONDS; ACIDS AND BASES

CHAPTER OBJECTIVES

This chapter provides a review of the more advanced material covered in a standard introductory chemistry course through a discussion of the following topics:

- the use of electronegativity to determine bond polarity, and the application of this knowledge to determine whether a given molecule possesses a dipole moment.
- the drawing and interpretation of organic chemical structures.
- the concept and determination of formal charge.
- resonance and drawing of resonance forms
- the Brønsted-Lowry and Lewis definitions of acids and bases, acidity constants and acid-base reactions.
- intermolecular forces

[2.0: Polar Covalent Bonds - Electronegativity](#)

[2.1: Polar Covalent Bonds - Dipole Moments](#)

[2.2: Formal Charges](#)

[2.3: Resonance](#)

[2.4: Rules for Resonance Forms](#)

[2.5: Drawing Resonance Forms](#)

[2.6: Acids and Bases - The Brønsted-Lowry Definition](#)

[2.7: Acid and Base Strength](#)

[2.8: Predicting Acid-Base Reactions from pKa Values](#)

[2.9: Organic Acids and Organic Bases](#)

[2.10: Acids and Bases - The Lewis Definition](#)

[2.11: Noncovalent Interactions Between Molecules](#)

[2.MM: Molecular Models](#)

[2.S: Polar Covalent Bonds; Acids and Bases \(Summary\)](#)

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