Brief Contents

Preface xxv

- 1 Introduction and Review 1
- 2 Structure and Properties of Organic Molecules 42
- 3 Structure and Stereochemistry of Alkanes 87
- 4 The Study of Chemical Reactions 132
- 5 Stereochemistry 174
- 6 Alkyl Halides: Nucleophilic Substitution and Elimination 218
- 7 Structure and Synthesis of Alkenes 285
- 8 Reactions of Alkenes 328
- 9 Alkynes 392
- 10 Structure and Synthesis of Alcohols 425
- 11 Reactions of Alcohols 467
- 12 Infrared Spectroscopy and Mass Spectrometry 513
- 13 Nuclear Magnetic Resonance Spectroscopy 563
- 14 Ethers, Epoxides, and Thioethers 625
- 15 Conjugated Systems, Orbital Symmetry, and Ultraviolet Spectroscopy 667
- **16** Aromatic Compounds 713
- 17 Reactions of Aromatic Compounds 756
- 18 Ketones and Aldehydes 816
- **19** Amines 879
- 20 Carboxylic Acids 939
- 21 Carboxylic Acid Derivatives 981
- 22 Condensations and Alpha Substitutions of Carbonyl Compounds 1045
- 23 Carbohydrates and Nucleic Acids 1101
- 24 Amino Acids, Peptides, and Proteins 1155
- 25 Lipids 1201
- 26 Synthetic Polymers 1222

Appendices 1243

Answers A1

Photo Credits PC1

Index I1