

Organic Chemistry

EIGHTH EDITION

GLOBAL EDITION

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PEARSON

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- Acids and Bases: Definitions
- Acids and Bases: Factors That Influence Acid Strength
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- Basics of Model Building
- Building and Recognizing Chiral Molecules
- Recognizing Chirality in Cyclic Molecules

Using the *E,Z* system to name alkenes was moved to Chapter 4, so now it appears immediately after using *cis* and *trans* to distinguish alkene stereoisomers.

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- Interconverting Fischer Projections and Perspective Formulas
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Catalytic hydrogenation and relative stabilities of alkenes were moved from Chapter 6 to Chapter 5 (thermodynamics), so they can be used to illustrate how ΔH° values can be used to determine relative stabilities.

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- An Exercise in Drawing Curved Arrows: Pushing Electrons
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Traditionally, electronic effects are taught so students can understand the directing effects of substituents on benzene rings. Now that most of the chemistry of benzene follows carbonyl chemistry, students need to know about electronic effects before they get to benzene chemistry (so they are better prepared for spectroscopy and carbonyl chemistry). Therefore, electronic effects are now discussed in Chapter 8 and used to teach students how substituents affect the pK_a values of phenols, benzoic acids, and anilinium ions. Electronic effects are then reviewed in the chapter on benzene.

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The two chapters in the previous edition on substitution and elimination reactions of alkenes have been combined into one chapter. The recent compelling evidence showing that secondary alkyl halides do not undergo S_N1 solvolysis reactions has allowed this material to be greatly simplified, so now it fits nicely into one chapter.

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- Curved Arrows in Radical Systems: Interpreting Curved Arrows
- Curved Arrows in Radical Systems: Drawing Curved Arrows
- Curved Arrows in Radical Systems: Drawing Resonance Contributors

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- Synthesis and Retrosynthetic Analysis: Changing the Functional Group
- Synthesis and Retrosynthetic Analysis: Disconnections
- Synthesis and Retrosynthetic Analysis: Synthesis of Carbonyl Compounds

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