

## CHAPTER OVERVIEW

### 18: Introduction to Carbonyl Chemistry; Organometallic Reagents; Oxidation and Reduction

#### Topic hierarchy

- 18.1: Introduction
- 18.2: General Reactions of Carbonyl Compounds
- 18.3: A Preview of Oxidation and Reduction
- 18.4: Reduction of Aldehydes and Ketones
- 18.5: The Stereochemistry of Carbonyl Reduction
- 18.6: Enantioselective Carbonyl Reductions
- 18.7: Reduction of Carboxylic Acids and Their Derivatives
- 18.8: Oxidation of Aldehydes
- 18.9: Organometallic Reagents
- 18.10: Reaction of Organometallic Reagents with Aldehydes and Ketones
- 18.11: Retrosynthetic Analysis of Grignard Products
- 18.12: Protecting Groups
- 18.13: Reaction of Organometallic Reagents with Carboxylic Acid Derivatives
- 18.14: Reaction of Organometallic Reagents with Other Compounds
- 18.15:  $\alpha,\beta$ -Unsaturated Carbonyl Compounds
- 18.16: Summary—The Reactions of Organometallic Reagents
- 18.17: Synthesis

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