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Carbenes; 2.2.6.2 Phosphorylation of Compounds with an Active Methylene Group; 2.3 Chemical Properties; 2.3.1 Stability; 2.3.2 Transformations Accompanied by Cleavage of the P=C Bond; 2.3.2.1 Thermolysis; 2.3.2.2 Photolysis
2.3.2.3 Oxidation-Industrial Synthesis of B-Carotene; 2.3.2.4 Reactions with Elemental Sulfur and Selenium; 2.3.2.5 Reduction; 2.3.3.6 Hydrolysis of Ylides; 2.3.2.7 Applications in Organic Synthesis; 2.3.3 Substitution at the Ylidic Carbon Atom; 2.3.3.1 Reactions with Alkylation Reagents; 2.3.3.2 Reactions with Acylation Reagents; 2.3.3.3 Examples in Natural Compound Synthesis; 2.3.4 Reactions with Compounds Containing Multiple Bonds; 2.3.4.1 Compounds Containing Carbon-Carbon Multiple Bonds; 2.3.4.2 Reactions with Compounds Containing Carbon-Heteroatom or Heteroatom-Heteroatom Multiple Bonds
2.3.5 Reactions with 1,3-Dipolar Compounds. Synthesis of Heterocyclic Systems
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4.2.3 Ylides Containing Group IVA Elements

Sommario/riassunto

When Wittig first developed and described phosphorus ylides, nobody could have imagined how useful and versatile this class of compounds could be. This book provides a comprehensive and up-to-date compilation of the chemistry and applications of phosphorus ylides in organic synthesis. The ylides are discussed as reagents in the synthesis of a broad range of substances, amongst them olefins, acetylenes, cyclic and heterocyclic compounds, in such naturally occurring compounds as pheromones, steroids and carotenoids, and pharmaceutically and biologically active compounds such as antibiotics and p
