Record Nr. UNINA9910777375803321 Autore Carey Francis A. <1937-> **Titolo** Advanced organic chemistry . Part A Structure and mechanisms [[electronic resource] /] / Frank A. Carey and Richard J. Sundberg New York; ; London, ; Kluwer Academic, c2002 Pubbl/distr/stampa 0-306-46856-5 **ISBN** Edizione [4th ed.] Descrizione fisica 1 online resource (836 p.) Collana Part A: Structure and Mechanisms Altri autori (Persone) SundbergRichard J. <1938-> 547 Disciplina Soggetti Chemistry, Organic Chemistry Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto Chemical Bonding and Structure -- Principles of Stereochemistry --Conformational, Steric, and Stereoelectronic Effects -- Study and Description of Organic Reaction Mechanisms -- Nucleophilic Substitution -- Polar Addition and Elimination Reactions -- Carbanions and Other Nucleophilic Carbon Species -- Reactions of Carbonyl Compounds -- Aromaticity -- Aromatic Substitution -- Concerted Pericyclic Reactions -- Free-Radical Reactions -- Photochemistry. Sommario/riassunto Since its original appearance in 1977, Advanced Organic Chemistry has found wide use as a text providing broad coverage of the structure, reactivity and synthesis of organic compounds. The Fourth Edition provides updated material but continues the essential elements of the previous edition. The material in Part A is organized on the basis of fundamental structural topics such as structure, stereochemistry, conformation and aromaticity and basic mechanistic types, including nucleophilic substitution, addition reactions, carbonyl chemistry. aromatic substitution and free radical reactions. The material in Part B is organized on the basis of reaction type with emphasis on reactions of importance in laboratory synthesis. As in the earlier editions, the text contains extensive references to both the primary and review literature and provides examples of data and reactions that illustrate and document the generalizations. While the text assumes completion of an introductory course in organic chemistry, it reviews the

fundamental concepts for each topic that is discussed. The Fourth

Edition updates certain topics that have advanced rapidly in the decade since the Third Edition was published, including computational chemistry, structural manifestations of aromaticity, enantioselective reactions and lanthanide catalysis. The two parts stand alone, although there is considerable cross-referencing. Part A emphasizes quantitative and qualitative description of structural effects on reactivity and mechanism. Part B emphasizes the most general and useful synthetic reactions. The focus is on the core of organic chemistry, but the information provided forms the foundation for future study and research in medicinal and pharmaceutical chemistry, biological chemistry and physical properties of organic compounds. The New Revised 5th Edition will be available shortly. For details, click on the link in the right-hand column.