Record Nr. UNINA9910811682803321 Autore Bruckner Reinhard <1955-> Titolo Advanced organic chemistry: reaction mechanisms // Reinhard Bruckner Pubbl/distr/stampa San Diego, : Harcourt/Academic Press, c2002 **ISBN** 1-281-46679-4 9786611466794 0-08-049880-9 Edizione [1st ed.] Descrizione fisica 1 online resource (661 p.) Advanced organic chemistry series Collana Disciplina 547/.139 Soggetti Organic reaction mechanisms 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 index. Nota di contenuto Front Cover; Advanced Organic Chemistry; Copyright Page; Contents; Foreword; Preface to the English Edition; Preface to the German Edition; Acknowledgments; Chapter 1. Radical Substitution Reactions at the Saturated C Atom; 1.1 Bonding and Preferred Geometries in C Radicals, Carbenium Ions and Carbanions; 1.2 Stability of Radicals; 1.3 Relative Rates of Analogous Radical Reactions: 1.4 Radical Substitution Reactions: Chain Reactions; 1.5 Radical Initiators; 1.6 Radical Chemistry of Alkylmercury(II) Hydrides; 1.7 Radical Halogenation of Hydrocarbons; 1.8 Autoxidations 1.9 Defunctionalizations via Radical Substitution ReactionsReferences: Chapter 2. Nucleophilic Substitution Reactions at the Saturated C Atom: 2.1 Nucleophiles and Electrophiles; Leaving Groups; 2.2 Good and Poor Nucleophiles; 2.3 Leaving Groups and the Quality of Leaving Groups; 2.4 SN2 Reactions: Kinetic and Stereochemical Analysis-Substituent Effects on Reactivity; 2.5 SN1 Reactions: Kinetic and Stereochemical Analysis: Substituent Effects on Reactivity 2.6 When Do SN Reactions at Saturated C Atoms Take Place According to the SN1 Mechanism and When Do They Take Place According to the SN2 Mechanism?2.7 Unimolecular SN Reactions That Do Not Take Place via Simple Carbenium Ion Intermediates: Neighboring Group Participation; 2.8 Preparatively Useful SN2 Reactions: Alkylations;

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## Sommario/riassunto

A best-selling mechanistic organic chemistry text in Germany, this text's translation into English fills a long-existing need for a modern, thorough and accessible treatment of reaction mechanisms for students of organic chemistry at the advanced undergraduate and graduate level. Knowledge of reaction mechanisms is essential to all applied areas of organic chemistry; this text fulfills that need by presenting the right material at the right level.