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| 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; |

References; Chapter 3. Additions to the Olefinic C=C Double Bond; 3.1 The Concept of cis and trans Addition; 3.2 Vocabulary of Stereochemistry and Stereoselective Synthesis I; 3.3 Additions That Take Place Diastereoselectivity as cis Additions
3.4 Enantioselective cis Additions to C=C Double Bonds
3.5 Additions That Take Place Diastereoselectively as trans Additions (Additions via Onium Intermediates); 3.6 Additions That Take Place or Can Take Place without Stereocontrol Depending on the Mechanism; References;
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4.5 E1 Elimination of H/Het from Rtert-X and the E1/SN1 Competition
4.6 E1cb Eliminations; 4.7 β -Eliminations of Het1/Het2; References;
Chapter 5. Substitution Reactions on Aromatic Compounds; 5.1 Electrophilic Aromatic Substitutions via Wheland Complexes ("Ar-SE Reactions"); 5.2 Ar-SE Reactions via Wheland Complexes: Individual Reactions; 5.3 Electrophilic Substitution Reactions on Metallated Aromatic Compounds; 5.4 Nucleophilic Substitution Reactions in Aryldiazonium Salts; 5.5 Nucleophilic Substitution Reactions via Meisenheimer Complexes
5.6 Nucleophilic Aromatic Substitution via Arynes, cine Substitution

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.
