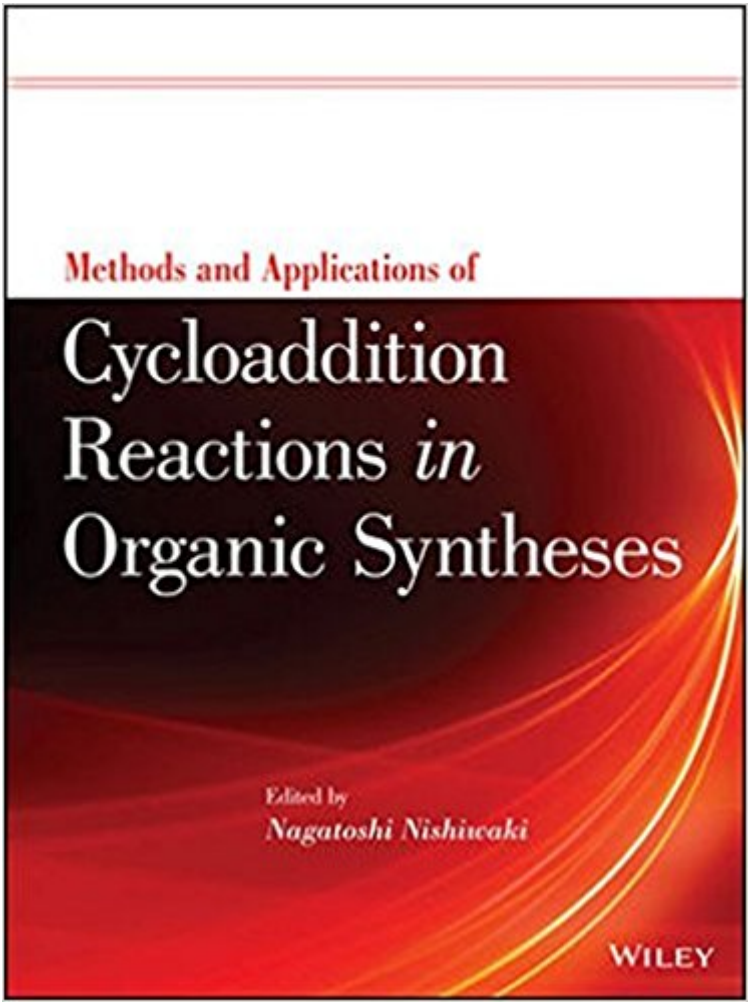
Methods And Applications Of Cycloaddition Reactions In Organic Syntheses



Synopsis

Advanced tools for developing new functional materials and applications in chemical research, pharmaceuticals, and materials science Cycloadditions are among the most useful tools for organic chemists, enabling them to build carbocyclic and heterocyclic structures. These structures can then be used to develop a broad range of functional materials, including pharmaceuticals, agrochemicals, dyes, and optics. With contributions from an international team of leading experts and pioneers in cycloaddition chemistry, this book brings together and reviews recent advances, trends, and emerging research in the field. Methods and Applications of Cycloaddition Reactions in Organic Syntheses focuses on two component cycloadditions, with chapters covering such topics as: N1 unit transfer reaction to Câ “C double bonds [3+2] Cycloaddition of Î , Î -unsaturated metal-carbene complexes Formal [3+3] cycloaddition approach to natural product synthesis Development of new methods for the construction of heterocycles based on cycloaddition reaction of 1,3-dipoles Cycloreversion approach for preparation of large Ï -conjugated compounds Transition metal-catalyzed or mediated [5+1] cycloadditions Readers will learn methods for seamlessly executing important reactions such as Diels-Alder and stereoselective dipolar reactions in order to fabricate heterocyclic compounds, natural products, and functional molecules. The book not only features cutting-edge topics, but also important background information, such as the contributorsâ ™ process for developing new methodologies, to help novices become fully adept in the field. References at the end of each chapter lead to original research papers and reviews for facilitating further investigation of individual topics. Covering the state of the science and technology, Methods and Applications of Cycloaddition Reactions in Organic Syntheses enables synthetic organic chemists to advance their research and develop new functional materials and applications in chemical research, pharmaceuticals, and materials science.

Book Information

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Customer Reviews

NAGATOSHI NISHIWAKI, PhD, is Professor of Chemistry at Kochi University of Technology, Japan. Dr. Nishiwaki has published over ninety scientific papers, twenty reviews and book chapters, and ten papers in chemical education. In addition, he has presented his research results at many scientific conferences.

Methods and Applications of Cycloaddition Reactions in Organic Syntheses Cycloaddition Reactions in Organic Synthesis, Volume 8 (Tetrahedron Organic Chemistry) Organic Syntheses, Collective Volume 12 (Organic Syntheses Collective Volumes) Reactions and Syntheses: In the Organic Chemistry Laboratory Pyrylium Salts: Syntheses, Reactions, and Physical Properties : Advances in Heterocyclic Chemistry; Supplement Two Study Guide: Ace Organic Chemistry I - The EASY Guide to Ace Organic Chemistry I: (Organic Chemistry Study Guide, Organic Chemistry Review, Concepts, Reaction Mechanisms and Summaries) Organic Syntheses Collective Volume 7 Organic Syntheses , Collective Volume 6, A Revised Edition of Annual Volumes 50-59 1,3-Dipolar Cycloaddition Chemistry (General Heterocyclic Chemistry) Archaeometallurgy in Global Perspective: Methods and Syntheses Strategic Applications of Named Reactions in Organic Synthesis Basic Organometallic Chemistry: Concepts, Syntheses and Applications Explosive Reactions Lab Kit (Mad Science Explosive Reactions Lab Kit) Organic Homemade Lotion Recipes - For All Skin Types (The Best Lotion DIY Recipes): Lotion Making For Beginners (organic lawn care manual, organic skin care, beauty and the beast) Foundations of Organic Chemistry: Unity and Diversity of Structures, Pathways, and Reactions Technique of Organic Chemistry: Investigation of Rates and Mechanisms of Reactions [Volume VIII- Parts 1 and 2] March’s Advanced Organic Chemistry: Reactions, Mechanisms, and Structure Advanced Organic Chemistry: Reactions, Mechanisms, and Structure Name Reactions and Reagents in Organic Synthesis CHEMISTRY 14D THINKBOOK (Organic Reactions and Pharmaceuticals)