Record Nr. UNINA9910138976903321 Methods and applications of cycloaddition reactions in organic **Titolo** syntheses / / edited by Nagatoshi Nishiwaki Pubbl/distr/stampa Hoboken, New Jersey:,: Wiley,, 2014 **ISBN** 1-118-77820-0 1-118-77817-0 1-118-77818-9 Descrizione fisica 1 online resource (673 p.) Altri autori (Persone) NishiwakiNagatoshi <1963-> Disciplina 547/.27 Organic compounds - Synthesis Soggetti Ring formation (Chemistry) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Methods and Applications of Cycloaddition Reactions in Organic Syntheses; Contents; Preface; Contributors; Part I: [2+1] Cycloaddition; 1 [2+1]-Type Cyclopropanation Reactions; 1.1 INTRODUCTION; 1.2 CYCLOPROPANATION REACTION VIA MICHAEL-INDUCED RING CLOSURE REACTION; 1.2.1 Introduction; 1.2.2 Halo-Substituted Nucleophiles in MIRC Reaction; 1.2.3 Ylides for Cyclopropanation; 1.3 SIMMONS-SMITH CYCLOPROPANATION AND RELATED REACTIONS; 1.3.1 Introduction; 1.3.2 The Simmons-Smith Reaction with Zinc Reagents; 1.4 DIAZOALKANES WITH TRANSITION METAL CATALYSTS; 1.4.1 Introduction 1.4.2 Rhodium-Catalyzed Reactions1.4.4 Ruthenium-Catalyzed Reactions; 1.4.5 Cobalt- and Iron-Catalyzed Reactions; 1.4.6 Other Transition Metal-Catalyzed Reactions; 1.4.7 Cyclopropanation Without Transition Metal Catalysts; 1.4.8 Cyclopropanation of Dihalocarbenes; 1.5 CYCLOISOMERIZATION WITH TRANSITION METAL CATALYSTS; 1.5.1 Introduction; 1.5.2 Gold Complex-Catalyzed Reactions; 1.5.3 Palladium Complex-Catalyzed Reactions; 1.5.4 Platinum Complex-Catalyzed Reactions: 1.5.5 Ruthenium Complex-Catalyzed Reactions: 1.5.6 Other Metal Complex-Catalyzed Reactions; 1.6 KULINKOVICH REACTIONS

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Sommario/riassunto

Although these reactions have been studied for a long time, cycloaddition chemistry makes frequent and considerable advances that requires chemists to keep constantly up-to-date with the practices and state-of-the-art. Bringing together the contributions from leading worldwide researchers, Methods and Applications of Cycloaddition Reactions in Organic Syntheses provides a valuable guidebook for synthetic organic chemists involved in chemical research, pharmaceuticals, and materials science to keep organic chemists updated and current in the practices of cycloadditions, a leading class o