1. Record Nr. UNINA9910138996803321

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Titolo	Alkynes in cycloadditions / / author, Irina A. Maretina ; translated from the Russian by Boris I. Ionin ; consulting editor, John C. Tebby
Pubbl/distr/stampa	Chichester, West Sussex : , : John Wiley & Sons, Inc., , 2014
ISBN	1-118-70929-2 1-118-70931-4 1-118-70933-0
Descrizione fisica	1 online resource (312 p.)
Altri autori (Persone)	TebbyJohn C. <1933-> IoninB. I
Disciplina	547/.413
Soggetti	Alkynes Ring formation (Chemistry)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Alkynes in Cycloadditions; Contents; Preface; Acknowledgments; Biography; 1 Introduction; 2 Regioselective Syntheses of Polysubstituted Benzenes Catalyzed by Transition Metal Complexes; 2.1 [2+2+2] Cycloaddition Reactions of Acetylenes; 2.1.1 Reactions of Alkynes with Metallocyclopentadiene as an Intermediate; 2.1.2 Intra-intermolecular [2+2+2] Cycloaddition of Alkynes; 2.2 Stereochemical Aspect of Intramolecular and Intermolecular Reactions of Diynes with Monoalkynes; 2.2.1 Strategy of Enantioselective [2+2+2] Cycloaddition; 2.3 Heteroatom Bound to the Triple Bond 2.3.1 Nitrogen-Containing Substrates2.3.2 [2+2+2] Cycloadditions of Alkynes to Nitriles: Synthesis of Pyridines; 2.4 Heterohelicens. Asymmetric Syntheses; 2.4.1 Oxygen-Containing Helicens; 2.4.2 Nitrogen-Containing Helicens. Helical Dications; 2.5 Aromatic Rings with Boron and Silicon Substituents; 2.6 [2+2+2] Cycloaddition Reactions of 1-Alkynylphosphines and Their Derivatives; 2.7 Intramolecular [2+2+2] Cycloaddition of Diynes to Alkenes; 2.7.1 Allene as an Alkene Component; 2.7.2 Formation of Polycyclic Cyclohexadienes by Ru-catalyzed Cascade Reactions of 1,6-Diynes and Alkenes

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2.10.2 Cobalt(I)-Mediated [2+2+2] Cyclization of Allene-Diynes: A Diastereoselective Approach to 11-aryl Steroid Core. 11-Aryl-Substituted Steroid Systems by Co-catalyzed [2+2+2] Cyclization of Allene-Diynes2.10.3 Synthesis of (3S)-hydroxyandrosta-5,7-diene-17-ones via Intramolecular Cobalt-Mediated [2+2+2] Cycloaddition; 2.10.4 Intramolecular Cycloaddition of Nonconjugated Enediynes of a Higher Order as a Route to Functionalized Condensed Polycyclic Systems; 2.10.5 A Strategy for the Synthesis of Aromatic Molecular-Bowl Hydrocarbons
2.10.6 A Route to Archimedenes: Total Synthesis of C3h-symmetric [7] phenylenes

Sommario/riassunto

Acetylene systems present a new route to cyclic compounds as an alternative to more traditional methods employed in classical organic chemistry. The synthesis of cyclic structures based on acetylene systems has important applications in the formation of nanostructures, naturally occurring compounds and chemosensory materials for the design of nonlinear optics, electronic and photonic devices. Alkynes in Cycloadditions presents a modern review of regioselective synthesis of aromatic and non-aromatic carbocyclic and heterocyclic ring systems based primarily on [2+2+2] and [4+2] c