1. Record Nr. UNINA9910145816303321

Autore	Ishikawa Tsutomu
Titolo	Superbases for organic synthesis [[electronic resource]] : guanidines, amidines and phosphazenes and related organocatalysts / / editor, Tsutomu Ishikawa
Pubbl/distr/stampa	Chichester, UK, : John Wiley & Sons, 2009
ISBN	1-282-69052-3 9786612690525 0-470-74085-X 0-470-74086-8
Descrizione fisica	1 online resource (346 p.)
Disciplina	541.395 547.2
Soggetti	Amidines Guanidines Phosphazo compounds Organic bases Electronic books.
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	Superbases for Organic Synthesis: Guanidines, Amidines, Phosphazenes and Related Organocatalysts; Contents; Preface; Acknowledgements; Contributors; 1. General Aspects of Organosuperbases; References; 2. Physico-Chemical Properties of Organosuperbases; 2.1 Introduction; 2.2 Proton Sponges; 2.2.1 'Classical' Proton Sponges; 2.2.2 Proton Sponges with Other Aromatic Backbones; 2.2.3 Polycyclic Proton Sponges; 2.3 Amidines; 2.4 Guanidines; 2.5 Phosphazenes; 2.6 Guanidinophosphazenes; 2.7 Other Phosphorus Containing Superbases : Verkade's Proazaphosp hatranes; 2.8 Theoretical Methods 2.9 Concluding RemarksReferences; 3. Amidines in Organic Synthesis; 3.1 Introduction; 3.2 Preparation of Amid ines; 3.2.1 Alkylation of Amidines; 3.2.2 Condensation of 1,2-Diamine; 3.2.3 Coupling of Imines (Isoamarine Synthesis); 3.2.4 Modification of Amide Derivatives; 3.2.5 Multi-Component Reaction; 3.2.6 Oxidative Amidination; 3.2.7

Oxidative Cyclization to Bisamidine; 3.2.8 Ring Opening of Aziridine; 3.3 Application of Amidines to Organic Synthesis; 3.3.1 Acetoxybromination; 3.3.2 Aldol -Like Reaction; 3.3.3 Azidation; 3.3.4 Aziridination; 3.3.5 Baylis-Hillman Reaction
3.3.6 Cycloaddition3.3.7 Dehydrohalogenation; 3.3.8 Deprotection; 3.3.9 Deprotonation; 3.3.10 Displacement Reaction; 3.3.11 Horner-Wadsworth-Emmons Reaction; 3.3.12 Intramolecular Cyclization; 3.3.13 Isomerization; 3.3.14 Metal -Mediated Reaction; 3.3.15 Michael Reaction; 3.3.16 Nef Reaction; 3.3.17 Nucleophilic Epoxidation; 3.3.18 Oxidation; 3.3.19 Pudovik-phospha-Brook Rearrangemen t; 3.3.20 [1,4]-Silyl Transfer; 3.3.21 Tandem Reaction; 3.4 Amidinium Salts: Design and Synthesi s; 3.4.1 Catalyst; 3.4.2 Molecular Recognition; 3.4.3 Reagent Source; 3.5 Concluding Remarks; References
4. Guanidines in Organic Synthesis4.1. Introduction; 4.2. Preparation of Chiral Guanidines; 4.2.1 Polysubstituted Acyclic and Monocyclic Guanidines; 4.2.2 Monosubstituted Guanidines (Guanidinylation); 4.2.3 Bicyclic Guanidines; 4.2.4 Preparation Based on DMC Chemistry; 4.3 Guanidines as Synthetic Tools; 4.3.1 Addition; 4.3.2 Substitution; 4.3.3 Others; 4.4 Guanidinium Salt; 4.4.1 Guanidinium Ylide; 4.4.2 Ionic Liquid; 4.4.3 Tetramethylguanidinium Azide (TMGA); 4.5 Concluding Remarks; References; 5. Phosphazene: Preparation, Reaction and Catalytic Role; 5.1 Introduction
5.2 Deprotonative Transformations Using Stoichiometric Phosphazenes5.2.1 Use of P1 Base; 5.2.2 Use of P2 Base; 5.2.3 Use of P4 Base; 5.2.4 Use of P5 Base; 5.3 Transformation Using Phosphazene Catalyst; 5.3.1 Addition of Nucleophiles to Alkyne; 5.3.2 Catalytic Activation of Silylated Nucleophiles; 5.4 Proazaphosphatrane Base (Verkade's Base); 5.4.1 Properties of Proazaphosphatrane; 5.4.2 Synthesis Using Proazphosphatrane; 5.5 Concluding Remarks; References; 6. Polymer-Supported Organosuperbases; 6.1 Introduction; 6.2 Acylation Reactions; 6.3 Alkylation Reactions; 6.4 Heterocyclization 6.5 Miscellaneous

Sommario/riassunto

Guanidines, amidines and phosphazenes have been attracting attention in organic synthesis due to their potential functionality resulting from their extremely strong basicity. They are also promising catalysts because of their potential for easy molecular modification, possible recyclability, and reduced or zero toxicity. Importantly, these molecules can be derived as natural products - valuable as scientists move towards "sustainable chemistry", where reagents and catalysts are derived from biomaterial sources. Superbases for Organic Synthesis is an essential guide to these important

2. Record Nr. UNIORUON00124546

Autore	LEE Chang Hei
Titolo	A first course in the Korean Language / Lee Chang Hei
Pubbl/distr/stampa	Seattle, : University of Washington Press, 1965
Descrizione fisica	vii, 129 p. ; 23 cm
Classificazione	COR II B
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia