

1. Record Nr.	UNINA9910821460103321
Autore	Saghyan Ashot S.
Titolo	Asymmetric synthesis of non-proteinogenic amino acids // Ashot S. Saghyan and Peter Langer
Pubbl/distr/stampa	Weinheim, Germany : , : Wiley-VCH, , 2016 ©2016
ISBN	3-527-80448-X 3-527-80447-1 3-527-80449-8
Descrizione fisica	1 online resource (376 p.)
Disciplina	547.750459
Soggetti	Amino acids - Synthesis
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 at the end of each chapters and index.
Nota di contenuto	Cover ; Title Page ; Copyright ; Contents ; List of Abbreviations ; Introduction ; Chapter 1 Non-Proteinogenic -Amino Acids, Natural Origin, Biological Functions; References ; Part I Natural Synthesis of Amino Acids, Mechanisms, and Modeling; References ; Chapter 2 Some Regularities of Mechanisms for the Natural Synthesis of Amino Acids ; References Chapter 3 Systems for Modeling Some Aspects of Pyridoxal Enzyme Action References ; Chapter 4 Modeling of Processes Associated with Cleavage of C -H and C -C Bonds; References ; Chapter 5 Modeling of , - Elimination Processes of PP-Catalysis, Kinetics, and Stereochemistry; References Chapter 6 Biomimetic Addition Reaction of Nucleophiles to CoIII Complexes of Dehydroaminobutyric Acid References ; Part II Asymmetric Synthesis of Nonprotein - Amino Acids; Chapter 7 The Main Rules of Asymmetric Synthesis ; References ; Chapter 8 Catalytic Asymmetric Synthesis 8.1 Achiral NIII Complexes of Schiff Bases of Amino Acids

8.1.1 The Alkylation of Achiral Nill Complexes Under Phase-Transfer Catalysis ; 8.1.2
Reactions of 1,4-Michael Addition to Achiral Glycine and Dehydroalanine Complexes
; 8.1.3 Synthesis of Enantiomerically Enriched α -Amino Acids
8.1.3.1 The Asymmetric Alkylation of Substrate 65a by Alkyl Halides Under Phase-Transfer Catalysis
8.1.3.2 Asymmetric Aldol Condensation of Achiral Nill Complexes of Amino Acids ;
8.1.3.3 The Asymmetric Michael Addition of Achiral Nill Substrates to Electron-Withdrawing Compounds
8.1.3.4 Catalytic Asymmetric Addition of Nucleophiles to an Achiral Dehydroalanine Substrate

Sommario/riassunto

Authored by two internationally recognized experts with an excellent track record, this much-needed reference summarizes latest research in the rapidly developing field of stereoselective synthesis of enantiomerically enriched amino acids, particularly of non-proteinogenic origin. It highlights several different catalytic and stoichiometric asymmetric methods for their synthesis and also provides information on origin, biological properties, different synthetic strategies and important applications in medicine and pharmacology. Essential reading for synthetic chemists working in the field of asymmetric synthesis, natural products and peptide synthesis, stereochemistry, medicinal chemistry, biochemistry, pharmacology, and biotechnology.
