1. Record Nr. UNINA9910350335603321

Titolo	Cutting-Edge Organic Synthesis and Chemical Biology of Bioactive Molecules : The Shape of Organic Synthesis to Come / / edited by Yuichi Kobayashi
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2019
ISBN	981-13-6244-0
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XXV, 355 p. 406 illus., 127 illus. in color.)
Disciplina	547
Soggetti	Chemistry, Organic Pharmaceutical chemistry Pharmacy Organic Chemistry Medicinal Chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Microbial Fraction Library: A Screening Source for Drug Discovery -- 2. Efficient Total Synthesis of mura Natural Products -- 3. Enantioselective Total Synthesis of the Antitumor Polycyclic Natural Products, FR182877 and Taxol -- 4. Synthetic Approaches on the Pluramycin-class Antibiotics -- 5. Recent Progress Toward the Total Synthesis of Duocarmaycins A and SA, Yatakemaycin, and PDE-I and –II -- 6. Structure-Activity Relationship Studies of Maitotoxin Based on Chemical Synthesis -- 7. Substitution of Allylic Picolinates with Various Copper Reagents and Synthetic Applications -- 8. Total Synthesis of Ingenol -- 9. Strategies for Synthesis of Anti-inflammatory Metabolites of Unsaturated Fatty Acids -- 10. Biosynthesis, biological functions, and receptors of leukotriene B4 and 12(S)-hydroxyheptadecatrienoic acid -- 11. Synthesis of classical/non-classical hybrid cannabinoids and related compounds -- 12. Exploring bioactive marine natural products and identification of their molecular targets -- 13. Target protein chemical modification -- 14. Target Identification of Bioactive Compounds by Photoaffinity Labeling Using Diazido Probes.
Sommario/riassunto	This book describes cutting-edge organic syntheses of biologically

active compounds, isolation of pharmaceutically promising compounds from microorganisms, drug design, and progress on chemical biology. Synthetic strategy and tactics are summarized for super-carbon chain compounds, antitumor polycycles, aryl C-glycoside, antimycins, duocarmycins, cannabinoids, and other compounds. Special chapters are devoted to synthesis and biochemistry of fatty acid metabolites, which play a central role in the initiation and resolution of inflammation. The book provides a quick survey of trending topics in organic synthesis and chemical tools for biological investigation, and furnishes ideas for future research in organic synthesis. In addition, the contents can easily be understood by young chemists, graduate students, and those who are looking for new research based on organic chemistry.