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Altri autori (Persone)	LiangXiaotian FangWei-Shuo
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Nota di contenuto	MEDICINAL CHEMISTRY OF BIOACTIVE NATURAL PRODUCTS; CONTENTS; Preface; Contributors; 1 The Chemistry and Biology of Epothilones-Lead Structures for the Discovery of Improved Microtubule Inhibitors; 1.1. Introduction; 1.2. Biological Effects of Epo B; 1.2.1 In Vitro Activity; 1.2.2 In Vivo Antitumor Activity; 1.3. Epothilone Analogs and SAR Studies; 1.3.1 Lactam-Based Analogs; 1.3.2 Modifications in the C9-C11 Region; 1.3.3 Modifications of the Epoxide Moiety; 1.3.4 C-26-Modified Analogs; 1.3.5 Side-Chain Modifications; 1.3.6 Aza-Epothilones 1.4. Pharmacophore Modeling and Conformational Studies 1.5. Epothilone Analogs in Clinical Development; 1.6. Conclusions; Acknowledgments; References; 2 The Chemistry and Biology of Vancomycin and Other Glycopeptide Antibiotic Derivatives; 2.1. Introduction; 2.2. Classification of Glycopeptide Antibiotics; 2.3. Mode

of Action; 2.4. Glycopeptide Resistance; 2.5. Biosynthesis; 2.6. Total Synthesis; 2.7. Glycopeptides as Chiral Selectors in Chromatography and Capillary Electrophoresis; 2.8. Structural Modifications of Glycopeptide Antibiotics and Structure Activity Relationship (SAR) Studies

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Acknowledgment; References; 3 Structure Modifications and Their Influences on Antitumor and Other Related Activities of Taxol and Its Analogs; 3.1. Discovery and Research and Development of Taxol; 3.2. Paclitaxel Analogs Active Against Normal Tumor Cells; 3.2.1 C-13 Side Chain; 3.2.2 A Ring and Its Substitutions; 3.2.3 B Ring and Its Substitutions; 3.2.4 C Ring and Its Substitutions; 3.2.5 D Ring; 3.2.6 Macrocyclic Analogs; 3.2.7 Miscellaneous

3.3. Exploration on Mechanism of Paclitaxel Related to Tubulin Binding and Quest for Its Pharmacophore 3.3.1 Biochemical Mechanism of Paclitaxel Related to Tubulin Binding; 3.3.2 Identification of Bioactive Conformations and Quest for a Pharmacophore for Paclitaxel; 3.4.

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4.2.2 Physical Appearance of HA

Sommario/riassunto

Current discoveries and research into bioactive natural products Medicinal Chemistry of Bioactive Natural Products provides a much-needed survey of bioactive natural products and their applications in medicinal chemistry. This comprehensive reference features articles by some of the world's leading scientists in the field on discovery, structure elucidation, and elegant synthetic strategies--developed for natural products--with an emphasis on the structure activity relationship of bioactive natural products. The topics have been carefully chosen on the basis of relevance to current rese
