1. Record Nr. UNISA996202138703316

Titolo	Combinatorial peptide and nonpeptide libraries : a handbook / / edited by Gunther Jung
Pubbl/distr/stampa	Weinheim, [Germany] : , : VCH, , 1996 ©1996
ISBN	1-281-84264-8 9786611842642 3-527-61491-5 3-527-61490-7
Descrizione fisica	1 online resource (574 p.)
Disciplina	547.756
Soggetti	Combinatorial chemistry
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	Combinatorial Peptide and Nonpeptide Libraries; Preface; Contents; List of Contributors; List of Abbreviations; 1 Natural Peptide Libraries of Microbial and Mammalian Origin; 1.1 Introduction; 1.2 Natural Peptide Libraries of Microbial Origin; 1.2.1 Microbial Polypeptide Antibiotics by Multienzymatic Thiotemplate Synthesis; 1.2.2 Polypeptide Antibiotics by Ribosomal Precursor Protein Synthesis and Posttranslational Modifications; 1.2.3 Combinatorial Biosynthesis and Biological Diversity of Polyketids; 1.3 Natural Peptide Libraries of Mammalian Origin 1.3.1 Self-peptide Libraries Isolated from MHC-Class I Molecules1.3.2 Self-peptide Libraries Isolated from MHC-Class II Molecules; 1.4 From Natural to Synthetic Peptide Libraries; 1.4.1 Synthetic Methods and the Variety of Peptide and Oligomer Libraries; 1.4.2 Analysis of Synthetic Peptide Libraries; 1.4.3 Selected Applications of Synthetic Peptide Libraries; References; 2 Polymer Supported Organic Synthesis: A Review; 2.1 Introduction; 2.2 Solid-Phase Organic Synthesis and Analytics; 2.2.1 Advantages of Solid-Phase Synthesis in Organic Reactions and Product Work-Up 2.2.2 Supports and Anchors2.2.3 Multiple, Parallel Syntheses; 2.2.4 Analytics and Monitoring of Solid-Phase Reactions; 2.3 Examples of

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2.3.6 Further Ring Closures on Solid Support2.3.7 Palladium Catalyzed C-C Attachments; 2.3.8 Further Reactions on Polymeric Support; 2.4 Oligomer Synthesis; 2.4.1 Peptoids; 2.4.2 Oligocarbamates; 2.4.3 Peptide-Nucleic Acids (PNA); 2.4.4 Oligoureas; 2.5 Outlook; Acknowledgments; References; 3 From Multiple Peptide Synthesis to Peptide Libraries; 3.1 Introduction; 3.2 Simultaneous Multiple Peptide Synthesis (SMPS); 3.2.1 Tea-Bag Synthesis; 3.2.2 Cellulose as Support in Multiple Syntheses; 3.2.3 Polystyrene-Grafted Polyethylene (PS-PE) Film, a New Resin?
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4.1.1 Principles and Realization

Sommario/riassunto

With combinatorial chemistry millions of organic compounds can be produced simultaneously, quickly, and in most cases by automated procedures. These compound libraries are a cost-effective resource for the pharmaceutical industry in their search for biologically active lead structures. Furthermore simultaneous parallel synthesis of single peptides and peptide libraries solve the problem of the worldwide increasing demand for peptides. The synthetic methods described here in detail contribute to a forward-looking technology that has a high impact for industrial and academic research.Fas