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ALKALOIDS: CHEMICAL & BIOLOGICAL PERSPECTIVES

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which contain high amount of active compounds that can be used as a medicinal plant. Most pharmaceutical drugs were discovered from plants, and still ongoing research will have to predict such new active compounds as anti-diseases. I do believe this book will add significant knowledge to medical societies as well as can be used for postgraduate students.

Chemistry and Pharmacology- 1997-07-23 Internationally acclaimed for more than 40 years, this Series, founded by the late Professor R.H.F. Manske, continues to provide outstanding coverage of the rapidly expanding field of the chemotaxonomy, structure elucidation, synthesis, biosynthesis, and biology of all classes of alkaloids from higher and lower plants, marine organisms, or various terrestrial animals. Each volume provides, through its distinguished authors, up-to-date and detailed coverage of particular classes or sources of alkaloids. Over the years, this Series has become the standard in natural product chemistry to which all other book series aspire. The Alkaloids: Chemistry and Pharmacology endures as an essential reference for all naturalproduct chemists and biologists who have an interest in alkaloids, their diversity, and their unique biological profile. Indispensable reference work written by leading experts in the field Provides up-to-date, timely reviews on compounds and classes of great interest Covers synthesis, biosynthesis, biology, as well as isolation and structure elucidation An essential research tool for anyone working with alkaloids from a chemical or biological perspectiveperspective

Biosynthesis-Finian J. Leeper 2003-07-01 This book is the second of two volumes that deal with discovery of chemical pathways of biosynthesis of natural products (secondary metabolites). The first volume covered the use of isotopes in biosynthetic research and the formation of enzyme cofactors and reduced polyketides. This second volume describes biosynthesis of aromatic (unreduced) polyketides, enzymes responsible for cyclization of terpenoids (isoprenoids), and biochemical generation of selected classes of alkaloids (prenylated tryptophan, tropane, pyrrolizidine). Knowledge of the pathways and the techniques to elucidate them opens the door to combinatorial biosynthesis as well as to the production of targeted pharmaceutical agents utilizing a combination of chemistry, molecular biology and protein biochemistry.

Alkaloids-Manfred Hesse 2002-09-09 This is the first comprehensive reference work providing a concise overview of the structure, properties, and history of these unique and fascianting substances. The volume is organized into three main sections. Part 1 examines the chemically relevant aspects by means of carefully selected examples. Part 2 is devoted to biological and biochemical aspects. Part 3 describes the cultural and historical significance of the most important alkaloid sources. (Midwest).

Microalgal Biotechnology: Potential and Production-Clemens Posten 2013-01-01 With the high interest in renewable resources, the field of algal biotechnology has undergone a huge leap in importance. This book treats the biological fundamentals of microalgal biotechnology in physiology and molecular biology. It provides an overview of applications and products as well as a survey of the state-of-the-art in process engineering of algae cultivation. So this book will be of interest to active people in the area of sustainable production of high value products or mass production of food and fuel for the future.

Phenolic Compounds-Marcos Soto-Hernández 2017-03-08 Phenolic compounds comprise a broad class of natural products formed mainly by plants, but also microorganisms and marine organisms that have the capacity to form them.

Nowadays the interest in these compounds has increased mainly due to their diverse chemical structure and wide biological activity valuable in the prevention of some chronic or degenerative diseases. The functional foods are a rich source of these phytochemicals, and this is the starting point for this book, which shows the state of the art of the phenolic compounds and their biological activity. This book integrates eleven chapters that show the state of the art of diverse biological activity of the phenolic compounds, present in some crops or fruits.

Chinmedomics-Xijun Wang 2015-07-15 Chinmedomics: The Integration of Serum Pharmacochemistry and Metabolomics to Elucidate the Scientific Value of Traditional Chinese Medicine uses new experimental techniques and research to open doors in drug discovery and development related to traditional Chinese medicine (TCM). This book features a unique approach that combines chemometric analysis with metabolomics studies to illuminate significant changes that have occurred in syndrome states while simultaneously analyzing the efficacy of chemical ingredients in herbal medicines. Chapters provide cutting-edge information on traditional medicine, analytical technology, natural products, metabolomics, bioinformatics and their applications. This book provides a valuable resource for pharmacologists, pharmaceutical scientists, medicinal plant researchers, pharmacognosists and chemists working with TCM and highlights ways to further research and advances in this area in the future. Presents a practical guide for new practitioners of Chinmedomics with insights on the current use and future development of this method Each chapter includes an introduction, method, references to the latest literature, possible mechanisms of action and applications Edited by the leading experts of research related to Chinmedomics

Recent Advances in Natural Products Analysis-Seyed Mohammad Nabavi 2020-03-07 Recent Advances in Natural Products Analysis is a thorough guide to the latest analytical methods used for identifying and studying bioactive phytochemicals and other natural products. Chemical compounds, such as flavonoids, alkaloids, carotenoids and saponins are examined, highlighting the many techniques for studying their properties. Each chapter is devoted to a compound category, beginning with the underlying chemical properties of the main components followed by techniques of extraction, purification and fractionation, and then techniques of identification and quantification. Biological activities, possible interactions, levels found in plants, the effects of processing, and current and potential industrial applications are also included. Focuses on the latest analytical techniques used for studying phytochemical and other biological compounds Authored and edited by the top worldwide experts in their field Discusses the current and potential applications and predicts future trends of each compound group

Scope of Selective Heterocycles from Organic and Pharmaceutical Perspective-Ravi Varala 2016-06-30 Scope of Selective Heterocycles from Organic and Pharmaceutical Perspective is a compilation of bioactive-chosen heterocyclic scaffolds intended for postgraduates, research scholars, pharmaceutical scientists, and others interested in an appreciation of the title subject. It is an edited book and is not comprehensive as well in the mentioned field. Few synthetic strategies along with bioactivity are presented, and some limitations were raised in order to arouse curiosity of the reader.