

Book Reviews

Frontiers in Medicinal Chemistry—Online. Volume 1 (online book series). Edited by Atta-ur-Rahman and A. B. Reitz. Bentham Science Publishers, Ltd. (<http://www.bentham.org/>). 2004. vi + 688 pp. CD ROM \$245.00 or \$45.00 per Chapter Online.

This electronic-only new book derives its contents from review articles previously published in the journals *Current Pharmaceutical Design*, *Current Medicinal Chemistry*, and *Current Topics in Medicinal Chemistry*. The authors are, however, encouraged to update their original manuscripts. Some of the 29 articles found in this first annual *Frontiers* are clustered thematically: enzyme inhibitors, diabetes therapy, drug discovery through structural biology, and psychotropic medication development. Much of the balance of topics addresses pharmacotherapeutic advances in cancer, HIV, bacterial infections, and emerging strategies to overcome biological barriers for drug delivery.

These review articles are written by experts for experts. Dated literature is avoided, and topics are supported by up to 500+ references per feature. The comprehensiveness of structure–activity relationships stops just short of proprietary information. The electronic format usually allows figures, such as molecular stereoviews and target-docked ligands, to be effectively zoomed for greater resolution. Chemical structures and graphics are of high quality.

The CD opens to a desktop display of 34 cryptically marked PDFs rather than to a unified file with coherent links. This awkward user interface could be easily rectified in future volumes. The lack of links from the Table of Contents to each article is confounded by the use of page numbers in the Table of Contents, while the desktop PDFs are not so identified, leaving the reader to fish. Further, the richness of the science within this volume cannot be easily accessed because of the lack of a search function and the meager nature of the index. Authors are instructed to provide key words, a list of abbreviations, and a concise abstract. Approximately half of the contributors fully complied; the others left the reader to wander. The original review citation from which each article in *Frontiers in Medicinal Chemistry—Online* was derived could not be found, nor was it indicated which articles had actually been updated. After addressing such format issues, *Frontiers in Medicinal Chemistry—Online* should become a friendly navigator for experienced medicinal chemists entering new subspecialties.

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Studies in Natural Products Chemistry. Volume 29. Bioactive Natural Products (Part J). Edited by Atta-ur-Rahman. Elsevier, New York. 2003. x + 902 pp. 16.5 × 24.5 cm. ISBN 0-444-51510-0. \$410.00.

This book is the 29th volume (Part J) of this series. It consists of 15 reviews and contains a number of articles in frontier areas written by leading experts. The volume covers synthetic approaches and structural studies as well as the corresponding structure–activity relationship results for a number of bioactive compounds. The articles deal with the screening, isolation, structure, synthesis, biosynthesis, and pharmacology of plant and microbial natural products that exhibit antimitotic, cancer chemotherapeutic, enzyme inhibitory, antiinflammatory, antibiotic, and molting hormone activities. The compound types also cover a huge range of natural products, i.e., polyketides, terpenoids, sugars, alkaloids, proteins, and enzymes.

Specific articles deal with the following topics. The article on ecdysteroid structure–activity relationships treats recent work on insect steroid hormones with the objective of preparing more potent compounds with fewer side effects. Another article presents research on natural antiinflammatory terpenoids that may be potential cancer-preventive agents. Research studies on the total synthesis of biologically intriguing drimane-type sesquiterpenoids via intramolecular Diels–Alder approaches and on the synthesis of bioactive diterpenes are included. Bioactive natural products from unexpected microbial resources are another topic covered. Other articles cover work on polyhydroxy-*p*-terphenyls and related *p*-terphenylquinones from fungi, halogen-containing antibiotics from streptomycetes, and natural bridged biaryls with axial chirality and antimitotic properties. Work carried out on chemical synthesis of carbasugars and analogues, an important class of compounds that exhibit various biological activities, is presented. The article on biosynthesis and properties of anti-carbohydrate antibodies, which are produced by immunization of animals with carbohydrate-containing antigens, should prove to be of interest to scientists working in this field. Recent studies are presented on plant protease inhibitors that have potential for pharmaceutical development, especially in relation to Alzheimer's disease, angiogenesis, cancer, inflammatory disease, and viral and protozoal infections. Other articles of interest include those on the natural product library for cyclooxygenase and lipoxygenase dual inhibitors and the chemistry and biology of lapachol and related natural products.

Although the coverage is extensive, some literature references to prior studies in certain research areas have not been included.

In summary, this volume and the series remain an important addition to the library of practicing medicinal, organic, and natural products chemists.

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