



BOOK REVIEW

Bioactive Natural Products—Detection, Isolation and Structural Determination, edited by S. M. COLEGATE and R. J. MOLYNEUX, CRC Press Inc., Boca Raton, FL, U.S.A., 1993, 528 pp., Dfl 490. ISBN 0-8493-4372-9.

This well illustrated book gives the reader a broad overview of the current natural product chemistry field with the exception of product synthesis. In their introductory chapter the editors clearly indicate the necessity of a multidisciplinary approach for finding new leads for compounds which may benefit mankind. Bioassays, isolation and purification, structure elucidation and additional biological testing need to be interwoven and are discussed in the remaining 20 chapters. All chapters follow a more practical than theoretical approach, but many references (1400 in the whole book) are given for additional information. An excellent overview of modern extraction and purification techniques is given by E. L. Ghisalberti. More attention is given to structure elucidation and separate chapters are devoted to NMR, mass spectrometry, X-ray crystallography and exciton chirality circular dichroism. These chapters are not too theoretical and are clearly intended for the practising natural product chemist. Also in other more specialised chapters, structure elucidation is discussed, but this does not

lead to overlap. For instance, 2-dimensional NMR plays a prominent role in the chapter on structure determination of molluscicidal saponins by S. Chen and J. K. Snyder. The largest part of the book consists of chapters centred around a pharmacological activity or a bioassay method. There are chapters on cytotoxic, anticancer, antiviral and immunomodulatory agents, natural sweeteners, insect behaviour modifiers, anti-inflammatory bioassays, the brine shrimp assay, neurotoxicity, a fetotoxicity bioassay and on live-stock-affecting toxins. Two remaining chapters focus on a particular class of compounds or plants: unconventional, non-basic alkaloids and terpenoids from liverworts and a mushroom.

The conclusion is that this is a valuable book for natural product chemists and phytochemists. Although it has been on the market for a while, it is certainly not outdated. The only criticism I have is that the order in which the chapters occur in the book and the selection of certain topics appears a bit haphazard. Finally, it is a pity that the very high price will even preclude many libraries—let alone individuals—from purchasing this book.

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