

**The Total Synthesis of Natural Products, Vol. 5.** Edited by JOHN AP-SIMON. John Wiley and Sons, One Wiley Drive, Somerset, NJ 08873. 1983. 550 pp. 15 × 23 cm. Price \$60.00

Volume 5 of this series is devoted entirely to a review of sesquiterpene total synthesis from 1971 to 1979. Those familiar with the literature on synthesis will appreciate the enormity of this task. In Volume 2 a single chapter covered sesquiterpene synthesis through 1970; that an entire volume is now required attests to the explosion of research in this area during the past decade. The Heathcock group has assembled a lucid and readable account of modern sesquiterpene synthesis which can be heartily recommended to students and practicing chemists alike.

The authors have done a creditable job of organizing over 250 total syntheses. The volume is grouped into sesquiterpenes of increasing connective complexity (*i.e.*, acyclic, monocyclic, bicyclic) and includes a chapter on alkaloid sesquiterpenes. This organizational scheme facilitates the location of specific structural classes in addition to permitting the reader to digest the synthetic efforts toward a specific class of compounds in one sitting. A notable improvement over previous volumes is a closer correlation between the text and the reaction schemes, greatly improving the readability of the former. Each synthesis is accompanied by a detailed discussion, with special attention given to key steps. The syntheses of selected compounds are subjected to comparative analysis, including tabulated information on the number of steps, separations, and overall efficiency. The authors wisely refrain from the obvious temptation to use this interesting data to rate the individual syntheses. References to the isolation and activity of compounds are not included, but should be readily available through the papers on synthesis, making Volume 5 a useful reference to those involved in natural products chemistry. Practitioners of organic synthesis will find this volume of *The Total Synthesis of Natural Products* an enlightened and indispensable resource.

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**Deposition of Toxic Drugs and Chemicals in Man, 2nd Ed.** By RANDALL C. BASELT. Biomedical Publications, P.O. Box 495, Davis, CA 95617. 1983. 795 pp. 15 × 23 cm. Price \$49.50.

This compilation of important and useful information about common drugs and chemicals offers an excellent "one-stop" general reference for toxicologists, pharmacologists, and clinical chemists. This edition is organized in a format easier to read and contains considerably more information than the first edition.

Dr. Baselt devotes individual attention to 305 substances including drugs, pesticides, metals, and commonly used solvents to which humans are frequently exposed. He dedicates a section to each compound, showing the chemical structure and, when available, the volume of distribution, plasma protein binding, plasma half-life of drugs, and  $pK_a$  of compounds. Individual paragraphs describe concisely the drug as it relates to occurrence and usage, blood concentration, metabolism and excretion, toxicity, and analytical procedures. The references listed are plentiful in most cases, especially in each section on analytical methods.

In presenting data for the "metabolism and excretion" sections, the author made an effort to profile the metabolic process with both descriptive information and chemical structure. The reader should find this useful, considering the increased understanding of the role metabolites play in the human response to drugs. Each section on "toxicity" includes brief case histories and literature references of fatalities, relating the concentrations of the substance as found in blood and other body tissues.

With the overwhelming amount of information being generated on the fate of drugs and chemicals in the human body, it is almost a relief to see

such data capsulized and presented in a useful source for the practicing scientist. This reference book certainly should have a spot reserved for it on the shelf of all analytical and clinical toxicologists who function in hospital laboratories.

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**Recent Advances in Clinical Therapeutics, Vol. II: Psychopharmacology, Neuropharmacology, and Gastrointestinal Therapeutics.** Edited by JACK Z. YETIV and JOSEPH R. BIANCHINE. Grune and Stratton, Inc., 111 Fifth Avenue, New York, NY 10003. 1983. 290 pp. 16.5 × 24 cm. Price \$32.50.

As the Preface states, this volume "is an outgrowth of a symposium held annually at the Ohio State University College of Medicine under the cosponsorship of the Departments of Pharmacology, Medicine, and Family Practice. The majority of the topics in this book were presented at the Fourth Annual Symposium on Recent Advances in Clinical Therapeutics held in September 1981. Several additional chapters were commissioned to round out the general focus of this volume." While fearing another random collection of disjointed lectures from 21 contributors, this volume was a pleasant surprise.

For each section, chapters are devoted to updates in general therapeutic principles as well as new drugs. Thus, the 25 newly approved or promising investigational drugs in this book are discussed in the context of their value in the overall management of the particular disease state. The table of contents is very detailed, and the index is more than adequate to help find desired information. Most chapters are well referenced.

The psychopharmacology section contains five chapters, covering neuroleptics, antidepressants, lithium, and phencyclidine. An excellent chapter on psychopharmacological classification of depressive disorders consolidates and clearly explains controversial and confusing literature. The lithium chapter focuses on new and important information, including renal effects and drug interaction concerns. The only chapter suffering from the 2½ year lag-time from presentation to publication is the chapter on antidepressants. So much has happened in the last 2½ years with newer antidepressants that this chapter is significantly out of date.

The neuropharmacology section contains chapters updating anti-epileptic drugs, newer muscle-relaxant drugs, aging and neuropsychopharmacology, and the benzodiazepines. Each chapter is current and relevant. The aging and neuropsychopharmacology chapter is a concise summary of clinically useful information.

The gastrointestinal therapeutics section contains five very specific chapters. The histamine  $H_2$ -receptor antagonists chapter provides a useful discussion of cimetidine and ranitidine as well as their value for various indications. Other chapters include new therapeutics of reflux esophagitis, nonsteroidal anti-inflammatory drugs and the stomach, effects of GI and hepatic pathology on human drug responses, and chenodeoxycholic acid in the management of gallstones. The final miscellaneous section contains chapters on the treatment of sexually transmitted diseases, therapeutic use of marijuana derivatives, and management of bronchial asthma in the ambulatory patient.

For the pharmaceutical scientist interested in a concise update in clinical therapeutics, this volume will be helpful. It also provides some insight into the relative value of newly introduced drugs, as well as the remaining need for even better medicines.

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