

## REVIEWS

*Treatise on Analytical Chemistry.* Part Two, *Analytical Chemistry of Inorganic and Organic Compounds*; Vol. 13 *Functional Groups*. Edited by I. M. KOLTHOFF and P. J. ELVING. Interscience Publishers, a Division of John Wiley & Sons, Inc., 605 Third Ave., New York, NY 10016, 1966. xxi + 528 pp. 16.5 × 24 cm. Price \$20.00.

This is only one of the many volumes in this series intended to cover all aspects of modern and classical analytical chemistry. The first volume of Part I, "Theory and Practice," was published in 1959; volumes of both Parts I and II have been appearing nearly every year since.

Volume 13 is a continuation of the organic analysis section and covers various functional groups—active hydrogen, C-methyl, carbonyl, carboxyl, phosphorus-based, and divalent sulfur based.

Staff review

*The Chemistry of Heterocyclic Compounds: Multi-Sulfur and Sulfur and Oxygen. Five- and Six-Membered Heterocycles.* Part II. By DAVID S. BRESLOW and HERMAN SKOLNIK. Interscience Publishers, a division of John Wiley & Sons, Inc., 605 Third Ave., New York, N. Y 10016, 1966. xviii + 793 pp. 15 × 22.5 cm. Price \$44.00. [For a review of Part I see *J. Pharm. Sci.*, 56, 663(1967).]

Part Two of the twenty-first volume in the Weissberger series, "The Chemistry of Heterocyclic Compounds," records the chemistry of the six-membered multi-sulfur and sulfur-and-oxygen heterocycles. Methods of synthesis, structures, and reactions of these ring systems are emphasized equally, and physical properties are thoroughly tabulated and referenced. Elucidation of reaction mechanisms by present concepts and critical evaluation of the older literature are important features of the text.

More than 200 parent heterocycles are now listed for the sulfur and oxygen five- and six-membered heterocycles of this classification. Among the types of compounds found in Part Two are the following: dioxadithianes and dioxadithiins, trithianes and tetrathianes, cyclic sulfite and sulfate esters of 1,3-diols, dioxathianes and oxadithianes (including cyclic disulfonic anhydrides), oxathianes and oxathiins (including sultones), oxathia-, thia-, and thiazaadamantanes, phenoxathiins (including other heterocyclic fusions and substituents), dithianes and dithiins (including cyclic disulfides, thioacetals, and thioketals), thianthrenes, and sulfur dyes. Corresponding selenium and tellurium systems are also included. The literature has been reviewed through 1962.

The pharmaceutical chemist should find much of interest in the variety of heterocyclic systems encountered in this volume, particularly since much of the chemistry described is not found in the standard texts of organic chemistry. Uses and applications, including pharmaceutical, are mentioned.

The index is extensive and differs to some extent from the ordinary. In addition to the inclusion of every derivative cited in the text, designation as to synthesis, property, reaction, or listing in a table is made. Reactants used in syntheses are indexed as well as uses and spectroscopic properties. This work is thorough, competent, and highly readable as well.

Reviewed by William O. Foye  
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*Extra Pharmacopoeia (Martindale).* 25th edition. Edited by R. G. TODD. The Pharmaceutical Press, 17 Bloomsbury Square, London, England, 1967. xxviii + 1804 pp. 16 × 23 cm. Price \$27.00.

"Martindale's Extra Pharmacopoeia" was first published in 1883. The 25th edition has been redesigned to enable the editors to include 80% more material than was in the 24th edition. However, it is relatively compact and is easy to read and use. One new feature is that each page is divided into two columns. This is particularly important to assure easy reading due to the number of lines per page. The latter was necessary to get this much material in a single volume. The book abounds in references, each consisting of a 5- to 20-line digest of essential information from the article with the source given in italics at the end of the digest instead of at the end of the chapter.

The editor has done a very selective job of deleting the old and incorporating the new. It contains many references to 1966 articles which is very current for a reference book of this type. Particularly useful is the information on new products, some of which have been approved by the FDA since the book was published on February 28, 1967, and others that are still under investigation in this country.

The book is divided into three main parts. Part 1 is the largest and contains 1500 pages devoted to monographs on drugs and drug preparations in current use. This most useful part is divided into 169 chapters, each covering closely related products, a total of about 2600 substances. The products are grouped pharmacologically, e.g., under the title of Aluminum Hydroxide and other antacids, and Penicillin and other antibiotics. The latter covers 125 pages and contains such useful lists as antibiotics active predominantly against Gram-positive organisms, those with antifungal activity, and those that are resistant to acids and are effective when given

by mouth. The monographs for individual substances list several names for the substance (when there are several), gives the molecular formula, description of the substance, solubility, uses, dose, toxic effects, and contraindications, including abstracts from articles that cover such aspects as hazards of prescribing with other drugs, *etc.*

Part 2 covers about 600 "Supplementary Drugs and Ancillary Substances." These are not covered in as much detail as the substances in Part 1. Some of the supplementary drugs are new substances not yet well recognized and others are old products that are no longer widely used, but still important enough to necessitate the pharmacist having descriptive information readily available.

Part 3 gives useful information on the composition and the manufacturer's name of about 1600 over the counter proprietary items. Since the name or composition of these may differ from preparations available in the U. S., this section is less useful than the other sections to the American pharmacist.

Although this is a British publication and compiled primarily for use in England, any American pharmacist who wishes to maintain a reasonably complete library will find it helpful as it contains some useful information not in our usual reference books. To get the most value out of it, one must use it enough to become acquainted with its organization. One will find information on various proprietary products in all three parts of the book. The inside of the cover "wrapper" suggests that one always refer to the Master Index, but if one is looking for "abbreviations," they are not mentioned in it, but rather listed under the table of "Contents," which refers one to page xxiii. Despite this, the index is very comprehensive, listing over 32,000 entries so that any preparation can be traced from its official name, chemical name, synonym, or proprietary name. There is also an Index to Clinical Uses, listing diseases and drugs used in treating them.

I recommend this book as a reference for hospital, prescription, and industrial pharmacists.

*Reviewed by R. H. Blythe  
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#### *Drugs Affecting the Peripheral Nervous System.*

Medicinal Research Series Vol. 1. Edited by ALFRED BURGER. Marcel Dekker, Inc., 95 Madison Ave., New York, NY 10016, 1967. xxii + 620 pp. 15.5 × 23 cm. Price \$27.50

This book, the first of a series, is intended to survey major topics in the area of pharmacodynamic agents acting on the nervous system; the approach is on a fundamental biochemical-pharmacologic basis. These volumes are a memorial to the late Fred Schueler who participated in the selection of authors.

There are ten chapters covering such areas as the molecular aspects of cholinergic mechanisms, muscarinic drugs, atropine-like agents, ganglionic drugs, adrenergic drugs, and others. For the most part standard drug classification has been followed. The structure-activity relationships of many compounds and series of compounds are given. In some areas the older data have been reinterpreted in the

light of newer knowledge. In other areas this has not been done. Even so, one of the values of this book is the extensive documentation of the large number of chemical structures tested in each drug class. Although at least one new class of compounds is not extensively covered—the  $\beta$ -adrenergic blocking agents—on the whole the references are up-to-date.

Another plus value is the complete author index of the cited literature. This serves as an excellent system to locate older references in which the author's name is better known than the class of drugs he studied.

Some of the authors have ventured into predictive speculations. The chapter on cholinergic mechanisms is of this kind. Each author in this book has been intimately associated with the material presented in his chapter. Both university laboratories and drug industry laboratories are represented. The projected series, if up to the quality of this first volume, will be a worthwhile addition to any pharmacology library.

*Reviewed by R. P. Ahlquist  
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#### *Index to Reviews, Symposia Volumes and Monographs in Organic Chemistry.*

For the period 1963–1964. Compiled and edited by NORMAN KHARASCH and WALTER WOLF. Pergamon Press, Inc., 44–01 21st Street, Long Island City, New York, N. Y. 11101, 1966. x + 326 pp. 21.5 × 28 cm. Price \$17.50.

This is the third volume of this "Index." The earlier two volumes covered 1940–1960 and 1961–1962, respectively. The "Index" covers works in French and German, and English translations of Russian studies, as well as those in English. Presentation is by journals, *i.e.*, the journals are listed alphabetically with the titles of the review articles contained in each listed chronologically. Eighty-three journals and periodic publications and fifty-three symposia, collective volumes, and nonperiodical publications are covered. A separate listing of monographs dealing with organic chemistry and closely related topics which have been published in English, French, and German is also given. A complete author and subject index is included.

*Staff review*

#### NOTICES

*Organic Photochemistry.* Vol. 1. Edited by ORVILLE L. CHAPMAN. Marcel Dekker, Inc., 95 Madison Ave., New York, NY 10016, 1967. xi + 339 pp. 15.5 × 23 cm. Price \$15.75.

*Quelques Aspects de la Chimie des Medicaments.* By A. LESPAGNOL, D. BAR, C. LESPAGNOL, and M. DAUTREVAUX. Masson et Cie, Editeurs, 120 Boulevard Saint-Germain, Paris VI<sup>e</sup>, France, 1966. viii + 268 pp. 16 × 23.5 cm. Price 78F. Paperbound.