

Analytical Profiles of Drug Substances, Vol. 12. Edited by KLAUS FLOREY. Academic Press, 111 Fifth Avenue, New York, NY 10003. 1983. 735 pp. 15 × 23 cm. Price \$47.00.

Continuing the yearly volumes in the series, analytical profiles of 17 drug substances are given in 713 pages. These are: amantadine, amikacin sulfate, benzocaine, dibucaine and dibucaine hydrochloride, estrone, etomidate, heparin sodium, hydrocortisone, metoprolol tartrate, phenylpropanolamine hydrochloride, pilocarpine, pyrazinamide, pyrimethamine, quinidine sulfate, quinine hydrochloride, rutin, and trimipramine maleate. There are also two profile supplements: dioctyl sodium sulfosuccinate (8 pp.) and isopropamide (12 pp.). The main profiles for each of these are in Volume 2.

This volume follows the pattern set in Volume 11. It has all of the strengths of the extensive data given in an analytical profile (including structures, spectra, tables of properties and chromatographic systems, and extensive references) and the lack of consistency inherent in having different authorships of each profile [see review of Vol. 11, *J. Pharm. Sci.*, 72, 582 (1983)]. One reference which was looked for was found as reference 69 under pilocarpine; however, the authors listed are not correct. This volume, like the others in the series, is a valuable reference for those engaged in pharmaceutical formulation and quality control and those needing information on drug metabolism, biopharmaceutics, and pharmacokinetics.

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Cell Surface Receptors. Edited by P. G. STRANGE. John Wiley and Sons, Inc., One Wiley Drive, Somerset, NJ 08873. 1983. 298 pp. 16 × 24 cm. Price \$79.95.

Dr. Strange has assembled a collection of some 15 reviews, average length 20 pages, dealing with a variety of membrane receptors and approaches to the study of receptor structure and function. Included are chapters on α_2 -adrenoceptors, opiate, benzodiazepine, dopamine, and calcium receptors, focusing largely on structure-activity relationships seen through pharmacological and radioligand binding studies. Other chapters discuss receptor changes and regulation including neuroleptic-dopamine interactions, biogenic amine changes in schizophrenia, regulation of GnRH receptors, cyclase defects in pseudohypoparathyroidism, and the implications of coexistence of amine and peptide transmitters. Coupling mechanisms are considered in chapters on phospholipids and adenylate cyclase. Final chapters discuss the gene coding of the nicotinic acetylcholine receptor and radioreceptor assays in quantitative drug assay.

Despite the necessary brevity of the chapters, there is material of interest to expert and nonexpert alike. Each chapter is, at least, adequately written with decent illustrations and few misprints. Few will leave the book without both gaining some useful insights and a deepened appreciation for the rapid pace of development of the study of pharmacological receptors. However, it is difficult to determine the primary audience for this book. To the nonexpert, graduate student, or new worker in the field, the volume is simply not systematic enough; however, the volume could certainly be a helpful supplementary volume accompanying a more basic course. For this purpose, the book is highly priced. To the expert, the volume may be useful in providing brief reviews in a number of receptor areas, but probably not to the extent of individual purchase.

In summary, I enjoyed reading this book and obtained some useful insights into a number of receptor areas. I do not recommend it for individual purchase, but an institutional purchase would certainly be appropriate.

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Manufacturing Processes for New Pharmaceuticals. By MARSHALL SITTIG. Noyes Publications, Mill Road at Grand Avenue, Park Ridge, NJ 07656. 1983. 612 pp., 15 × 23 cm. Price \$84.00.

This is Chemical Technology Review No. 220 from Noyes Publications. The book describes the processes for the manufacture of nearly 500 new-chemical-entity pharmaceuticals. The great majority of the compounds are undergoing some level of FDA review, with approval as new drugs being the ultimate goal. The author states in the foreword to the book that the information used in the reviews was obtained from the patent literature, and that the new drugs described have attained generic name status, but in most cases have not yet received trade names.

The arrangement within the reference is alphabetical by generic name. There is no index or cross-index of the compounds listed in the book by chemical name. The lack of such a chemical name index detracts from the value of the book, since it is not possible to conveniently determine whether or not a particular compound is listed in the book, unless the generic name is known.

Under each entry in the book, the generic name is given first, followed by the therapeutic function of the compound, the chemical name, the empirical chemical formula, the structural formula, in some cases a product description (usually limited to the melting point), the code number of the compound, the manufacturer and country, the manufacturing process, and references. The manufacturing processes are described in detail. In some cases, several alternative syntheses are given. Where intermediates are involved, the syntheses of the intermediates are given. In addition to the one or more patent references given with each compound, other references are frequently given, where results of pharmacological studies or other data on therapeutic uses, adverse effects, or precautions may be found.

The book is intended as a guide to future drugs. The book should thus be of interest to scientists engaged in the design and development of new drugs. Furthermore, some of the chemical synthesis manufacturing methods reported for the wide range of compounds in the book will be of interest to medicinal and organic chemists.

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Antibiotics: An Introduction. By ROLAND REINER. Thieme-Stratton Inc., 381 Park Avenue South, New York, NY 10016. 1982. 172 pp. 12 × 19 cm. Price \$9.95.

This small volume is intended to provide "a condensed introduction to the chemistry, biochemistry, biology, pharmacy, and medical usage of antibiotics." The book begins with a brief historical outline in tabular form of the discovery of important chemotherapeutic agents. This is followed by very brief discussions concerning the detection and determination of antibiotic activity and the production and isolation of antibiotics. The chapter entitled "Chemistry of Antibiotics" includes a limited discussion of the structure proof of penicillin and oxytetracycline, followed by a series of schemes illustrating the partial and total synthesis of several antibiotics. The synthetic pathways are not discussed. The chapter on "Mechanism of Action of Antibiotics" is presented in tabular form listing the antibiotic class and site of action with minimal discussion. A chapter entitled "Chemotherapeutic Properties of Antibiotics" provides a brief overview of the clinical use, antibacterial spectrum, administration and dosage, and bacterial resistance of important antibiotics. The information is presented primarily in tabular form. The final chapter, about one-third of the book, is entitled "Structural Formulas and Main Properties of Individual Antibiotics." This chapter consists primarily of the structural and empirical formulas and molecular weight of over 100 antibiotics. A bibliography containing an extensive listing of mono-