

REVIEWS

Introduction to Pharmaceutical Dosage Forms. By HOWARD C. ANSEL. Lea & Febiger, Washington Square, Philadelphia, PA 19106, 1976. 415 pp. 18.5 × 26 cm. Price \$22.50.

In this second edition, the organization and content have been extensively revised. References have been updated and take into account the current literature. The purpose of the book still remains to present to "the beginning student introductory concepts of dosage form design, manufacture, and utilization" of drugs, with emphasis given to the drug entities listed in the official compendia. By selecting the route of administration as the framework, the author has succeeded admirably in meeting this purpose.

The content of the revised edition reflects accurately the changes in curricula taking place in schools of pharmacy and in the practice of pharmacy. It will enable the student to integrate easily basic scientific pharmaceutical concepts with current concepts in patient care, thus presenting a refreshing view in a basic pharmaceuticals textbook. The book's value is increased by the discussion of such topics as drug standards and good manufacturing practices and by the new appendix chapter which addresses information vital to the beginning pharmacy student.

While the author extends his appreciation to many who have cooperated in this effort, one strong point of the second edition, as of the first, is its uniformity of style.

This reviewer feels somewhat disappointed in the complete exclusion of a discussion of contact lens solutions, which probably differ in dosage form design and use sufficiently from ophthalmic solutions to deserve some recognition. Also somewhat disappointing is the all too brief discussion of radiopharmaceuticals. Nevertheless, it is easy to recommend adoption of this book by those responsible for teaching basic pharmaceuticals courses. Furthermore, the book can serve well as a reference source for those in industry and research.

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Dispensing of Medication. 8th Ed. Edited by JOHN E. HOOVER. Mack Publishing Co., Easton, PA 18042, 1976. 654 pp. 18 × 26 cm.

This book represents a modern approach to the subject as evidenced by the omission of many chapters dealing solely with the compounding of medications on the industrial level or the type of material presented in "Preparations" courses. Most authors have presented information concerned not only with the fabrication of dosage forms but also with the anatomy and physiology of the body organ systems as well as drug absorption from the various sites. This approach is entirely in keeping with the announced intention of the editor to "aid the patient-oriented pharmacist."

Keeping this intent in mind while reading the text reveals a lapse from time to time. Thus, while an excellent review of bioavailability is presented, one wonders if the dispensing pharmacist who is deeply involved in patient care should expect to receive some direct pointers regarding bioequivalent evaluation of specific products. The chapter on dermatologicals could have presented a clearer description of the effect of ointment bases in percutaneous absorption and the extent that the clinical symptoms determine the selection of dosage form or base in the treatment of dermatologic conditions. One wonders if it is still necessary to belabor the "ideal monodisperse" suspension or to cover the subject of pills.

An excellent balanced approach makes the chapter on parenterals useful to both hospital and industrial pharmacists. If the pharmacist is to monitor parenteral therapy in a rational manner, as suggested by the authors, should not criteria for the use of intravenous administration be provided?

The last chapter, Compounding and Dispensing Information, is over 300 pages and contains a wealth of information on drug interactions and incompatibilities. Unfortunately, a portion of this chapter is not presented in a format that allows the reader to utilize this information to the

best advantage. The last 170 pages of this chapter, entitled Specific Compounding and Dispensing Information, is an extremely valuable tool. It presents physical-chemical properties of drugs and drug products by nonproprietary and/or trade names and gives data including incompatibilities, stability, choice of bases, information the pharmacist must consider when dispensing the drug, and information to be given the patient. This type of information should be at every pharmacist's fingertips.

This book represents a valuable addition to the library of the practicing pharmacist, especially one who is interested in ensuring that patients receive proper and optimal pharmaceutical care. The majority of it is well written, concise, and explicit while covering the necessary subjects and should serve the student well as a text.

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Pharmacognosy. 7th Ed. By VARRO E. TYLER, LYNN R. BRADY, and JAMES E. ROBBERS. Lea & Febiger, Washington Square, Philadelphia, PA 19106, 1976. 537 pp. 18.5 × 26 cm. Price \$21.50.

This book is a revised and updated edition of the single standard textbook for pharmacognosy. It is the only reference suitable for general use by students in pharmacognosy in the United States. The unique position it holds attests to the usefulness of older editions over the past years but precludes comparisons with other books on the same subject.

Most of the book is unchanged from the last edition; new chapters mainly represent rearrangement of material (e.g., Steroids and Peptide Hormones) taken from other sections. Other chapters have been updated, but none is totally rewritten. The drugs included are divided into chapters based upon the chemical (e.g., volatile oils and alkaloids) or therapeutic category (e.g., antibiotics and immunizing agents) classifications. Three chapters at the end contain introductory information on subjects difficult to find in other pharmacy books: Allergens, Poisonous Plants, and Pesticides.

The book has been revised with the expectation of making it more applicable to the "patient-oriented pharmacist." This approach can be detected in the information given regarding cardiac glycosides, in the immunization schedule, and in the list of diseases caused by various microorganisms. This aspect of the revision could have been expanded, because the use given for colchicine is simply "suppressant for gout" and the only use listed for caffeine is "central stimulant," even though the caffeine-containing prescription specialties listed are all used as analgesics. A few misleading statements have remained such as ephedrine "depressing . . . cardiac muscle action" and dextrose as a "fluid . . . replenisher."

The book is recommended as a textbook for all undergraduate pharmacognosy students.

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Analytical Profiles of Drug Substances, Vol. 5. Edited by KLAUS FLOREY. Academic, 111 Fifth Ave., New York, NY 10003, 1976. xi + 560 pp. 16 × 23.5 cm. Price \$22.50.

This is the fifth in a series of compilations under the sponsorship of the Pharmaceutical Analysis and Control Section of the APhA Academy of Pharmaceutical Sciences. It is the intent of these volumes to make available in a single source important information about drug substances which is scattered through the scientific literature or which may be filed

away in the laboratories of pharmaceutical scientists. Each drug profile provides useful information and data in the following general areas: description, physical properties, synthesis, stability and degradation, metabolism, analysis (for the drug substance, in its dosage forms, and in biological fluids), pharmacokinetics, and literature references. Physical properties include IR, NMR, UV, and mass spectral data, melting point, solubility data, crystal properties, and pK values where applicable. Analytical methods encompass titrimetry, chromatography, colorimetry, spectrophotometry, elemental analysis, and related techniques.

Each profile is presented in a well-organized and systematic manner. Each is introduced by a table of contents, followed in an orderly sequence by individual categories of specifications, and concluded by an extensive listing of quoted references. This compendium is printed clearly and is replete with tables and graphical presentations. Data are readily located and concisely presented with only a minimum of descriptive information. Maximum utilization is made of the available space.

This volume brings to a total of 97 the number of drugs for which profiles have thus far been prepared, including the 18 in Volume 5. These volumes serve well as companion books to the official compendia by presenting a wealth of data that supplement and are not duplicative of material found in the compendia. As noted in the Forward to Volume 1 of this series, the delegates to the 1970 meeting of the United States Pharmacopoeial Convention adopted a resolution that consideration be given to the publication of just such a companion compendium. While the USPC did not undertake this project, it is worthy of note that a number of contributors to this series, including its esteemed editor, are, in fact, members of the USP Committee of Revision.

In view of the fact that fewer than 100 drug profiles have appeared in the first five volumes of this series, and with the mandate for USP XX to include all drugs currently official in USP XIX and NF XIV, all drugs added in their annual supplements, some 600 nonofficial drugs selected by the outgoing Subcommittee on Scope of the USP at its final meeting in January 1975, and new drugs marketed since that date, it is obvious that pharmaceutical scientists have their work cut out for them. It is worth repeating here the editor's invitation that: "All those who have found the profiles useful are earnestly requested to contribute a monograph of their own. The editors stand ready to receive such contributions." Hopefully, there will be an overwhelming response to this invitation.

This burgeoning library of "Analytical Profiles" is a must for all who are engaged in pharmaceutical research.

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Aromatic and Heteroaromatic Chemistry. Vol. 4. A Specialist Periodical Report. Edited by C. W. BIRD, G. W. H. CHEESEMAN, *et al.* The Chemical Society, Burlington House, London W1V 0BN, England, 1976. 513 pp. 14.5 × 22.5 cm. Price £28.00.

This volume comprises an in-depth review of the literature abstracted between July 1974 and June 1975 and covered by volumes 81 and 82 of "Chemical Abstracts." The organization of the report follows the established pattern of previous volumes.

There are 14 chapters written by 15 international scientists who are specialists in their fields. Most of the chapters include an introduction indicating the parameters established by the author(s) and the reviews on the subject published during the time period. A particularly helpful feature is that all literature citations are included as footnotes on the page that contains the abstract, thus eliminating the time consuming and thought-interrupting process of turning to the end of the chapter when a specific reference is desired. Another helpful feature is a complete author index.

The chapter titles include: Ring Systems of Topical Interest, Inter-molecular and Intramolecular Cyclization Reactions in Ring Synthesis, Cycloaddition Reactions, Ring Transformations, Electrophilic Substitution on Carbon, Electrophilic Substitution on Heteroatoms, Nucleophilic Substitution, Aromatic Substitution by Free Radicals, Carbenes and Nitrenes, Addition Reactions, Ring Cleavage Reactions, Reactions of Substituents, Porphyrins and Related Compounds, Naturally Occurring Oxygen-ring Compounds, and Other Naturally Occurring Compounds. The volume comprises 513 pages and includes 2750 literature citations.

The book is well illustrated with many chemical structures and reaction mechanisms. These illustrations are numbered sequentially and placed in close proximity to their text reference, thus affording a free flowing continuity which contributes to the overall excellent readability of the material.

This treatise is an extremely well-organized and readable volume and should serve to stimulate fresh approaches in the ever more sophisticated areas of aromatic and heteroaromatic synthetic chemistry. It is recommended to all chemists who are actively involved in synthetic organic chemistry or who wish to be up to date and informed about research activity in aromatic and heteroaromatic chemistry.

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Handbook of Analysis of Organic Solvents. By VÁCLAV ŠEDÍVEK and JAN FLEK. Halsted, 605 Third Ave., New York, NY 10016, 1976. 455 pp. 16 × 23.5 cm. Price \$42.50.

Within this volume the authors have compiled an extensive aggregate of information concerning the chemical and physical properties and the analysis of organic solvents. Following a brief discussion of sampling and drying techniques, procedures are described for the determination of the physical properties and quantitative identification of unknown samples. After a presentation of methods for the analysis of two- and three-component mixtures by physicochemical methods, the basics of GC are described using a general procedure. Relative retention times are given for many common solvents using six different stationary phases.

The second part of the book deals with solvents as individual classes of organic compounds. The most frequently encountered solvents are described in depth, listing synonyms, chemical properties, usual impurities, and azeotropes. Tables containing extensive physical data are included. Detection methods, derivatives, and quantitative procedures are described in detail with corresponding literature references. Three appendixes covering 80 pages include a listing of the boiling points of solvents and their azeotropic mixtures, the major physical properties, and an alphabetical listing of universally used trade names.

This handbook represents a valuable accumulation of a myriad of facts and procedures which will be of use to the analyst, the chromatographer, and the synthetic organic chemist, all of whom frequently require data or techniques to utilize or analyze organic solvents.

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The National Formulary and the USP Guide to Select Drugs. Edited by W. M. HELLER, G. K. WURSTER, C. A. DICKIE, and J. W. WHEATLEY. U.S. Pharmacopoeial Convention, 12601 Twinbrook Parkway, Rockville, MD 20852, 1976. 295 pp. 10 × 14.5 cm. Price \$3.00.

This convenient pocket-size book is intended to be a companion to the official compendia and the USAN Dictionary and is the first compilation of its kind subsequent to the consolidation of the USP and NF. Its purpose is "to highlight those drugs that should receive attention and be used as preferred drugs."

The book contains an alphabetical list of both generic and brand names of effective and useful drugs, with the preferred drugs in boldface type. The entries also contain dosage forms and strength; indication of whether prescription, nonprescription, or DEA controlled; and the pharmacological classification. In addition, there is a cross-index by therapeutic classification.

This book should be useful as a personal prescribing and dispensing guide and as a basic list of preferred drugs for health facilities and various organizations.

Staff Review