

water to a nonpolar environment difficult. Their surface-active properties and their ability to complex with other drugs having similar ring systems render doubtful the conclusions drawn by many workers as to the biological significance of enzyme inhibition studies and complexation with a variety of biological materials. While caution must be observed in interpreting such studies, it becomes clear that the colloidal properties of the drugs must be linked to their biological action. It should be no coincidence that a range of drugs with diverse structure, but with pharmacological properties similar to those of phenothiazines, was demonstrated to be surface active and to form micelles in solution.

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BOOKS

REVIEWS

The United States Dispensatory, 27th Edition. Edited by ARTHUR OSOL and ROBERTSON PRATT. Lippincott, East Washington Square, Philadelphia, PA 19105, 1973. xix + 1287 pp. 21 × 26 cm. Price \$30.00.

This edition of the *Dispensatory* is about the same size as the 26th edition, which itself was much smaller than previous editions because of the deletion of hundreds of ineffective drugs and botanicals. As in the last edition, the collection of articles on individual drugs is arranged alphabetically (straight through from Acacia to Zinc Sulfate), with a number of more extensive articles on general classes of drugs interspersed.

Although the editors do not state the basis for the listing of the drugs in the book, it is apparent that the individual drug substances and pharmaceutical aids that are official in NF XIII and

USP XVIII comprise the great majority of those covered in this edition. A number of other drugs, both old and new, are also included.

The articles on individual drugs (listed by nonproprietary name) typically contain information, where applicable and available, of the following types: chemical and brand name nomenclature; chemical structure; a summary of method of synthesis or other form of preparation or derivation; pharmacological actions; therapeutic uses; contraindications; untoward effects; warnings and precautions; drug interactions (a new feature for this edition); dosage for adults and children, including variations of dosage in different diseases; and dosage forms available.

The general articles, which usually provide more extensive information than is found in the individual drug articles, are titled as follows: Adrenergic Inhibiting Drugs; Adrenocortical Steroids; Analgesic Drugs; General Anesthetics; Local Anesthetics; Antibiotics; Antibiotics with Antineoplastic Activity; Anticoagulants;

Antihistamines; Barbiturates; Cytotoxic Agents; Drug Dependence; Ganglionic Blocking Drugs; Hypoglycemic Sulfonyleureas and Biguanides; Oral Contraceptives; Parasympathomimetic and Anticholinergic Drugs; Pituitary Hormones and Factors; Psychotherapeutic Drugs; Renal Therapeutic Agents; and Thyroid Functions, Hormones, and Diseases. The articles vary in depth and breadth of coverage, the one on antibiotics, for example, being quite extensive, while those on antihistamines and psychotherapeutic drugs receive only token coverage (although the individual drug articles in the book make up the difference). In general, however, these articles (averaging about eight pages in length and ranging from less than two to about 30 pages) provide concise, useful outlines in pharmacology and therapeutics for the various classes of drugs covered.

Most statements relating to the pharmacology and uses of the drugs listed throughout the volume appear to be well documented with original literature references, many being updated from those cited in the 26th edition. According to the editors, nearly 500 journals, representing more than 32,000 separate issues, of medical and pharmaceutical sciences publications were utilized in the preparation of this edition. NF XIII and USP XVIII—as well as AMA Drug Evaluations 1971—were used extensively as primary source materials. The editors have also taken note of FDA's decisions, based on the NAS-NRC drug efficacy study, regarding efficacy of the drugs for the indications claimed by the manufacturers.

New for this edition is an 11-page section in the front of the book entitled "Classification of Medicinal and Related Substances in the United States Dispensatory According to Action or Use." This grouping, which appears to have been adapted from those used by the NF and USP (but with a number of changes in category designations), is based on the principal pharmacological actions and/or therapeutic uses of drugs, and on the uses of pharmaceutical aids. The editors point out, however, that this classification scheme is not intended to denote efficacy or safety of any substance in any category in which it has been classified.

A short addendum at the back of the book describes a few drugs that were released too late for alphabetic listing. The 27-page index lists drugs by nonproprietary as well as brand name, and it is extensively cross-indexed.

It is somewhat disconcerting that the *Dispensatory* does not systematically indicate whether or not the drugs listed therein are recognized by the official compendia, much less distinguishing between the two. This is indeed regrettable, inasmuch as the USD no longer segregates official from nonofficial drugs. Thus, the reader cannot readily determine, if at all, whether a particular drug is now official, or if it is an old one, or if it is a new but as yet unofficial drug. (Several drugs deleted from earlier editions of the NF and USP have been included, and for most, but not all, of these the last edition of the compendium in which the drug appeared before it was deleted is indicated by the USD.)

Despite these minor shortcomings, this volume is a pleasure to use. In its field, this 27th edition of the *United States Dispensatory* probably provides more useful, relatively up-to-date informa-

tion—in a manageable, readily accessible form—than any other single comparably sized and priced book in print today. For this, the editors and their distinguished panel of contributors are to be congratulated.

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Aromatic and Heteroaromatic Chemistry, Vol. 1. C. W. BIRD, Senior Reporter. The Chemical Society, Burlington House, London W1V OBN, England, 1973. 445 pp. 14 × 22 cm. Price £11.

This volume is the first of a new series of Specialist Periodical Reports on Aromatic and Heteroaromatic Chemistry which is planned as an annual publication. The work reported in this initial volume has been compiled from the literature covered by *Chemical Abstracts* from July 1971–June 1972. It is a credit to the editors that so extensive an amount of work has been collected into one volume in such a well-organized and readable manner. The text meets the high standards set by other Chemical Society publications (*Annual Reviews*, *Chemical Society Reviews*, etc.) and of necessity is extensively referenced.

The subject material is divided into an extensive chapter on aromatic systems including discussions of exotic systems such as cyclophanes, circulenes, helicenes, and annulenes among other unusual aromatic and heteroaromatic systems, to provide the reader with a concept of the current understanding of aromaticity. The remaining chapters (14) deal with the synthesis of aromatic systems (4 chapters), aromatic substitution reactions (6 chapters), side-chain reactions (1 chapter), and finally a review (3 chapters) of naturally occurring compounds. A section on theoretical aspects is to be included in the second volume.

The authors of the various chapters have included, where appropriate, a brief, well-referenced survey of the less recent subject material, prior to the discussion of the 1971–1972 literature. This is particularly useful to the reader wishing to update knowledge of areas in which he or she has not kept abreast. For the medicinal chemist, both teacher and researcher, this volume would seem to be a necessary addition to a personal, or at the very least, departmental library. It is most important that our scientists keep abreast of recent advances for possible applications to the development of superior drugs. This volume satisfies the criteria for accomplishing these objectives and its attractive format adds to its desirability as a valuable text.

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