

In the present volume, which does include sections on general enzymology and on the chemistry of enzymes which have been used as therapeutic agents, there is a question whether this ideal has been recognized. While enzymologists may have their memories refreshed by a four page discussion of the methods used for determination of molecular weights of proteins, it is hard to believe that an interested clinician would be much enlightened by such an abbreviated account. Further, in several cases, the results of such measurements are presented in historic order which may well indicate to the general reader that the molecular weights of these enzymes are not known with any measure of certainty.

At our present level of understanding, the sections on *Biochemistry of Enzymes Used Clinically*, on *Parenteral Use of Enzymes in Medicine* and on *Diagnostic Use of Enzymes* must consist largely of reviews of the literature. These appear to have been carefully done. Omissions of papers and of topics is inevitable in view of the extensive literature in this area.

In addition, the editor has contributed four chapters dealing with the general areas of biological specificity, protein structure and synthesis, and a recapitulation of the therapeutic uses which have been made of enzymes. These chapters serve largely as the warp upon which the woof of Dr. Martin's views of "biological relativity" is woven. While little argument will be aroused by the statement that "The first and major tenet of this concept states that there are no absolutes in biological systems," the inferences drawn from this premise appear more provocative than acceptable to this reader. The inclusion of a considerable discussion of the philosophy of molecular biology in a volume bearing a rather prosaic title probably will surprise many library gleaners in the future.

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Medicinal Chemistry. Volume IV. A Series of Reviews Prepared under the Auspices of the Division of Medicinal Chemistry of the American Chemical Society. Edited by F. F. BLICKE and R. H. COX. John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1959. ix + 334 pp. 15.5 × 23.5 cm. Price, \$12.00.

The fourth volume of this series differs from the previous issues in that it covers a single subject, Barbituric Acid Hypnotics. It is an extensive compilation by an author, Wilbur J. Doran of Eli Lilly and Company, who has had long experience with this class of compounds. Approximately 200 pages are devoted to the tables in which compounds are listed systematically by molecular structure and biological activities are recorded where available. In the text (39 pages) the history, the chemistry and the pharmacology of barbituric acid are discussed. The chemistry section covers syntheses, chemical conversions, chemical and physical properties, and identification and quantitative determination. Among the pharmacology headings are General Pharmacology, Testing, Mechanism of Depressant Action, Distribution and Metabolism, Potentiation and Antagonism of Barbiturate Depression. These sections are succinctly presented and the specialist will need more detail, but together with the references they provide a very useful basis for acquiring more detailed information.

The real meat of the book lies in the extensive tables which cover all barbituric acids and not just those structures where experience has shown pharmacological activity can be expected. Many other useful tables are included, for example, two tables list the commercially available barbituric acids by their generic names and by their trade names. A further attractive and unusual feature is a complete formula index occupying 57 pages. The references include slightly over 1200 citations.

The literature is covered through the 1956 index of "Chemical Abstracts." Consequently, there are relatively few references later than 1955. However, in view of the mass of information that is included in a field that has not been too active in recent years this does not detract from the usefulness of this effort. Every scientist interested in drug development will wish to have this work available.

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BOOKS RECEIVED

November 10, 1958–December 10, 1959

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W. F. DE JONG. With the Collaboration of J. BOUMAN. "General Crystallography. A Brief Compendium." W. H. Freeman and Company, 660 Market Street, San Francisco 4, California. 1959. 281 pp. \$6.00.

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CARL S. MARVEL. "An Introduction to the Organic Chemistry of High Polymers." John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1959. 82 pp. \$4.50.

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EMILIO SEGRE AND LEONARD I. SCHIFF, Co-editors. GERHART FRIEDLANDER AND WALTER E. MEYERHOF, Associate Editors. "Annual Review of Nuclear Science." Volume 9. Annual Reviews, Inc., Grant Avenue, Palo Alto, California. 1959. 625 pp. \$7.00 (U.S.A.); \$7.50 (elsewhere).

MAX TISHLER, Editor-in-Chief. "Organic Syntheses." Volume 39. John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1959. 114 pp. \$4.00.