

providing a highly useful guide to biochemical research in the central nervous system.

DEPARTMENT OF PHARMACOLOGY
NEW YORK STATE PSYCHIATRIC INSTITUTE
722 WEST 168TH STREET
NEW YORK, N. Y.

HAROLD J. STRECKER

Methods of Enzymology. Volume II. Edited by SIDNEY P. COLOWICK and NATHAN O. KAPLAN, McCollum-Pratt Institute, The Johns Hopkins University, Baltimore, Maryland. Academic Press, Inc., Publishers, 125 East 23rd Street, New York 10, N. Y. 1955. xx + 987 pp. 16.5 × 23.5 cm. Price \$23.80.

This volume is dedicated to the memory of James B. Sumner (1887-1955). There are 5 sections dealing with enzymes in protein metabolism, nucleic acid metabolism, phosphate metabolism, coenzyme and vitamin metabolism and respiratory enzymes. The 5 sections are further subdivided into 152 contributions by as many authors, dealing with preparative procedures and assay methods.

On p. 48 in the discussion of trypsin inhibitors the findings of Tauber, Kershaw and Wright [*J. Biol. Chem.*, 179, 1155 (1949)] have been misrepresented. The fact is, Tauber, Kershaw and Wright found (as shown in Table III) the crude Lima bean inhibitor to be 4.5 times more active than the crystalline fraction. It is obvious that the author of this review did not check the original paper but used another source material. On p. 475 the preparation of non-specific adenosine deaminase from Takadiastase is described. Commercial Takadiastase which contains a large quantity of inert material is not good starting material for the preparation of highly active mold enzymes. Natural mixtures of concentrated enzyme products produced from *Aspergillus oryzae* type mold cultures are now commercially available. Methods have been described for the preparation of soluble enzymes from mold bran cultures. These too are mixtures of a large number of enzymes and are suitable for the preparation of non-specific adenosine deaminase. On pp. 776 and 777 two methods for the preparation of crystalline beef liver catalase are described in detail. These procedures, however, are not the easiest for the crystallization and recrystallization of catalase. The more recent methods of Tauber and Petit are now in general use [*J. Biol. Chem.* 195, 703 (1952); 205, 395 (1953)]. On p. 791 under the heading "Peroxidase (liver)," the preparation of a fraction containing liver proteins is described. This fraction having both catalase and peroxidase activity is said to contain a specific peroxidase because it oxidizes guaiacol. This conclusion, based on optical measurements, may be correct. It has been shown, however, that crystalline catalase can also oxidize large molecules and this fact should have been mentioned by the author. In this volume peptide bond synthesis and transpeptidation by proteolytic enzymes are presented. In this connection the reviewer wishes to call attention to the recent test of Haurowitz and Horowitz [*THIS JOURNAL* 77, 3138 (1955)] which employs isotopically labeled substrates to determine enzymatic transpeptidation.

Enzymology has grown to enormous proportions in the past 30 years. A large number of important discoveries have been made. The reviewer's few critical remarks intend to show that even an expertly prepared work such as this does not include all the facts and all of the literature. It requires careful supplementing with past and current source materials. It is the reviewer's opinion that this volume, similar to Volume I, will be gratefully received by enzyme investigators everywhere.

VENEREAL DISEASE EXPERIMENTAL LABORATORY
U. S. PUBLIC HEALTH SERVICE
SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF NORTH CAROLINA
HENRY TAUBER
CHAPEL HILL, NORTH CAROLINA

BOOKS RECEIVED

May 10, 1956-June 10, 1956

- T. P. HILDITCH. "The Chemical Constitution of Natural Fats." Third Edition, Revised. John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1956. 664 pp. \$16.00.
- J.-P. MATHIEU AND A. PETIT. "Constantes Sélectionnées Pouvoir Rotatoire Naturel. I. Stéroïdes." Tables de Constantes et Données Numériques Organisme Affilié de L'Union Internationale de Chimie Pure et Appliquée. Volume 6. Masson et Cie, Éditeurs, 120 Boulevard Saint-Germain, Paris 6, France. 1956. 507 pp. Volumes brochés 12000 Frs, Volumes reliés 12900 Frs.
- F. F. NORD (edited by). "Advances in Enzymology and Related Subjects of Biochemistry." Volume XVII. Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1956. 556 pp. \$11.00.
- G. H. OSBORN. "Synthetic Ion-Exchangers. Recent Developments in Theory and Application." The Macmillan Company, 60 Fifth Avenue, New York 11, N. Y. 1956. 194 pp. \$6.00.
- G. N. PATTERSON. "Molecular Flow of Gases." John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1956. 217 pp. \$7.50.
- M. CANNON SNEED AND ROBERT C. BRASTED, Editors. "Comprehensive Inorganic Chemistry." Volume Five. "Nitrogen, Phosphorus, Arsenic, Antimony, and Bismuth." By Harry H. Sisler. "Non-aqueous Chemistry." By Alfred R. Pray. D. Van Nostrand Company, Inc., 120 Alexander Street, Princeton, New Jersey. 1956. 214 pp. \$5.00.
- ARNOLD WEISSBERGER, Consulting Editor. "The Chemistry of Heterocyclic Compounds." Volume IX. "Acridines." By R. M. Acheson, with a chapter by L. E. Orgel. Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1956. 409 pp. \$12.50, \$11.25 Subscription price.