

beginning student to understand all the intimate details of energy yields in carbohydrate metabolism and the terminal electron transport system when the subject matter is treated in such a condensed manner. On the other hand, students who have had a course in biochemistry will undoubtedly find this chapter a bore. Instead of explaining the metabolic reactions more in detail, trivial diagrams and tables are scattered throughout this chapter. Metabolism of amino acids, lipids, nucleic acids, and bacterial nutrition are not discussed at all. Aside from minor misprints, such as the formula for FAD (p. 242) and the enzyme phosphohexoisomerase instead of hexoseisomerase (p. 246), a more serious error appears on page 249. The author described the conversion of succinyl-CoA to succinyl phosphate and then to succinic acid on transference of phosphate to ADP. To the reviewer's knowledge, the compound, succinyl phosphate, has yet to be recorded in the biochemical literature. The chapter on immunity is again not rigorously discussed, with too much attention devoted to details of procedures. Little information is available on the basic mechanisms of antigen-antibody reactions, mechanisms of antibody formation, specificity of antigens, etc.

This book is unsuitable as a beginning text for microbiology students or as a textbook of microbiology for pharmacy students. It is too elementary and does not cover and emphasize the important modern concepts of microbiology. It certainly could not be compared with the standard textbooks of microbiology, such as "Microbial World," by Stanier, Doudoroff, and Adelberg, or "Modern Microbiology," by Umbreit, or "Fundamentals of Microbiology," by Frobisher. Because of the limited information it contains, the reviewer would not consider it useful as a reference book for the advanced student or the research worker. On the other hand, since the book is clearly written, the material is presented in a very elementary and concise manner, and it is relatively free from serious errors, it should be of utility as a general introductory monograph of microbiology for the general community.

Reviewed by Charles J. Sih  
School of Pharmacy  
The University of Wisconsin  
Madison

*Pharmacy: A Synthesis of Sciences.* By JOHN T. FAY, JR. D. C. Heath & Co., Boston, Mass., 1964. viii + 134 pp. 13.5 × 20 cm. Price \$1.27. Paperbound.

Pharmacy is a specialized science dependent on the basic sciences—chemistry, biology, physics, and mathematics. In this detailed discussion, the author stresses the interrelationship of each of these sciences, their ramifications, and how each contributes to pharmaceutical sciences.

Included in the book are clear definitions of pharmaceutical and medical terms with reference to disease, drug categories, mathematical symbols, and dosage forms; descriptions of manufacturing procedures and equipment; research; quality control; and antibiotic production.

The very readable text provides an informative introduction to pharmacy for use in career guidance programs and a comprehensive refresher for practicing pharmacists.

## NOTICES

*Contribution a l'Analyse Coulométrique, Applications aux Sciences Pharmaceutiques, English Summary.* Par G. PATRIARCHE. Editions Arscia S.A., 60, rue de l'Etuve, Bruxelles, 1964. 218 pp. 16 × 24 cm. Price 420 Fr. B. Paperbound.

*Methods of Biochemical Analysis.* Vol. 12. Edited by DAVID GLICK. Interscience Publishers, New York, N. Y., 1964. ix + 499 pp. 15.5 × 23 cm.

*Travaux des Laboratoires de Matière Médicale et de Pharmacie Galénique de La Faculté Pharmacie de Paris.* Publiés sous la Direction de MM. LES PROFFESSEURS M.-M. JANOT et R. PARIS. Tome XLVIII—Année 1963. Vigot Frères, Editeurs, 23 Place de L'Ecole-de-Médecine, 1964. 15.5 × 24 cm. Paperbound.

*Experimental Chemotherapy.* Vol. III, Chemotherapy of Bacterial Infections. Part II, Chemotherapy of Rickettsial and Viral Infections. Edited by R. J. SCHNITZER and FRANK HAWKING. Academic Press Inc., 111 Fifth Ave., New York, N. Y., 10003, 1964. xviii + 647 pp. 15.5 × 23.5 cm.

*Pharmacology of Smooth Muscle.* Edited by EDITH BULBRING. Pergamon Press Book, The Macmillan Company, 60 Fifth Ave., New York 11, N. Y., 1964. ix + 161 pp. 16 × 23 cm. Price \$7.50.

*The Nature and Chemistry of High Polymers.* By KENNETH F. O'DRISCOLL. Reinhold Publishing Corp., 430 Park Ave., New York 22, N. Y., 1964. ix + 111 pp. 12.5 × 18.5 cm. Price \$1.95. Paperbound.

*Hawley's Technical Speller.* Compiled by G. G. HAWLEY and A. W. HAWLEY. Reinhold Publishing Corp., 430 Park Ave., New York 22, N. Y., 1964. 146 pp. 12.5 × 18.5 cm. Price \$2.50. Paperbound.

*Aniline.* National Aniline Div., Allied Chemical Corp., 40 Rector St., New York, N. Y. 10006, 1964. ix + 109 pp. 22 × 28 cm. Single copies free upon request.

*Kurzes Lehrbuch der Pharmakologie.* Von G. KUSCHINSKY und H. LULLMANN. Georg Thieme Verlag, Stuttgart, Germany, 1964. viii + 331 pp. 17.5 × 26.5 cm. Price DM 33.

*The Pharmacopeia of Japan.* Seventh Edition, Part II, 1962, including revision to Part I through April 1964. Ministry of Health and Welfare, Tokyo, Japan. 19 × 26 cm.