

Hepatic and Metabolic Function is the subject of the second section, which includes Chapters 4-6. A comprehensive review of drug kinetics in patients with hepatic dysfunction is presented in Chapter 4. The effect of chronic liver disease on hepatic clearance is examined in Chapter 5, and Chapter 6 is a description of the kinetics of a single drug, carbamazepine, in a particular disease state, epilepsy.

The third section, Protein Binding, contains, in Chapter 7, a survey of disease-induced changes in drug-binding components and factors that alter drug-protein binding. Chapter 8 reviews the effects of uremia, bacterial infections, and cardiopulmonary bypass on serum protein binding. The clinical implications of interindividual differences of plasma protein binding, specifically for warfarin, phenytoin, and bilirubin, are discussed in Chapter 9.

Renal Function, the final section, is the area in which the most progress has been made in evaluating effects of disease states on drug kinetics. Chapter 10 presents a broad consideration of the field and a tabular compilation that may be used in adjusting drug dosage for compounds influenced by changes in renal function. The influence of renal disease on the elimination of procainamide and the accumulation of *N*-acetylprocainamide is described in Chapter 11. Finally, in Chapter 12, the effect of changes in renal function on gentamicin kinetics is discussed.

This book should be of particular value to students and researchers in the field of clinical pharmacokinetics, as well as practitioners and professionals in allied fields.

#### Staff Review

#### Practical Pharmaceutical Chemistry. Third Edition-Part Two.

By A. H. BECKETT and J. B. STENLAKE. Humanities Press, Atlantic Highlands, NJ 07716, 1976. 552 pp. 16 × 24 cm. Price \$37.50.

The present volume is an attempt to provide to students the benefit of numerous developments in practical pharmaceutical chemistry since the book was first written (1970). This resulted in an increase in the length of the volume by 127 pages, a figure that gives some idea of the new matter incorporated in the present edition.

This edition again opens with a chapter on "General Physical Methods," which covers some of the general topics in physics including molecular weight, refractometry, optical activity, and viscosity. These topics, systematically presented in concise form, lay the groundwork for subsequent chapters. It would be invidious to single out any chapter for special mention because the book covers such a wide variety of topics. These topics include analysis of drugs, measurement of electromotive force and pH, conductometric titrations, polarography, chromatography, spectrophotometry, flame photometry, and atomic absorption spectroscopy, spectrofluorometry, IR, NMR, mass spectrometry, and radiochemical techniques. These topics provide a sound basic knowledge to chemistry and pharmacy students.

The organization of this edition is identical to the previous edition. In addition to the material covered in the previous edition, this edition has given more detailed coverage to flame photometry, atomic absorption, and GC-mass spectrometric systems and has incorporated excellent introductions to, and practical applications of, circular dichroism spectra, thermal methods of analysis, coulometry, and high pressure liquid chromatography. The sections on NMR have been extended to include lanthanide shift reagents, <sup>13</sup>C-NMR spectroscopy, fourier transform NMR, and an introduction to internuclear double resonance and nuclear overhauser effect. The chapter on radiochemical techniques includes additional practical experiments with radionuclide generators and the use of radioimmunoassay techniques. All chapters of the book are sufficiently illustrated with diagrams, experiments (none in chapters on NMR and mass spectrometry), cognate experiments, and references. At the end of certain chapters, the authors provide a list of recommended books for additional study.

Overall, this is a lucid book presented in the style employed by Arthur I. Vogel, the author of "Practical Organic Chemistry." It is the opinion of this reviewer and his associates that this edition will not

only stimulate the interest of chemistry and pharmacy students but will also assist in enhancing their knowledge.

Reviewed by S. D. Jolad  
Division of Pharmaceutical Chemistry  
College of Pharmacy  
University of Arizona  
Tucson, AZ 85721

#### NOTICES

*Dictionnaire Pratique De Pharmacologie Clinique.* By Y. TOUITOU and L. PERLEMUTER. Masson et cie, 120 bd Saint-Germain, 75280 Paris 6, France, 1976. 1204 pp. 15 × 21 cm. Price 167 F.

*Receptors and Recognition. Vol. 1 Series A.* Edited by P. CUATRECASAS and M. F. GREAVES. Wiley, 605 Third Ave., New York, NY 10016, 1976. 175 pp. 16 × 24 cm. Price \$24.00.

*Arzneiformenlehre. Ein Lehrbuch für Pharmazeuten.* By PAUL HEINZ LIST *et al.* Wissenschaftliche Verlagsgesellschaft mbH., 7000 Stuttgart 1, P.O. Box 40, Germany, 1976. 514 pp. 17 × 24.5 cm. Price DM 62.—.

*Carbohydrate Chemistry. Vol. 8.* Edited by J. S. BRIMACOMBE *et al.* The Chemical Society, Blackhorse Road, Letchworth, Herts. SG6 1HN, England, 1976. 485 pp. 14 × 22 cm. Price \$66.00. May be obtained from Special Issue Sales, American Chemical Society, 1155 Sixteenth St., N.W., Washington, DC 20036.

*Innovative Medical-Psychiatric Therapies.* Edited by RICHARD M. SUINN and RICHARD G. WEIGEL. University Park Press, Baltimore, MD 21202, 1976. xvi + 302 pp. 16.5 × 23.5 cm. Price \$19.50.

*Reviews of Physiology, Biochemistry and Pharmacology. Vol. 74.* (The Role of Cyclic Nucleotides in Central Synaptic Function; Renal Transport of Amino Acids). Springer-Verlag, 175 Fifth Ave., New York, NY 10010, 1975. 200 pp. 17 × 25 cm. Price \$39.80.

*Biosynthesis. Vol. 4.* Edited by J. D. BU'LOCK *et al.* The Chemical Society, Burlington House, London, W1V 0BN, England, 1976. 274 pp. 14 × 22 cm. Price \$44.00.

*Dental Practitioners' Formulary 1976-78.* The British Medical Association, Tavistock Square, London, WC1H 9JP and The Pharmaceutical Press, 17 Bloomsbury Square, London WC1A 2NN, England, 1976. 64 pp. 15.5 × 9.5 cm. Price £ 0.55.

*Handbook of Ocular Toxicity.* By MARVIN B. SMITH. Publishing Sciences Group Inc., 162 Great Rd., Acton, MA 01720, 1976. 525 pp. 16 × 24 cm. Price \$20.00.

*British National Formulary 1976-78.* The British Medical Association, Tavistock Square, London, WC1H 9JP and The Pharmaceutical Press, 17 Bloomsbury Square, London WC1A 2NN, England, 1976. 422 pp. 16.5 × 10.5 cm. Price £ 1.55.

*Thiamine.* Edited by CLARK J. GUBLER, MOTONORI FUJIIWARA, and PIERRE M. DREYFUSS. Wiley, 605 Third Ave., New York, NY 10016, 1976. 393 pp. 16 × 23.5 cm. Price \$27.00.

*Contemporary Organic Chemistry.* By MARION H. O'LEARY. McGraw-Hill Book Co., 1221 Avenue of the Americas, New York, NY 10020, 1975. 396 pp. 16.5 × 24 cm. Price \$13.95.

*Visceral Muscle. Its Structure and Function.* By HENRY HUDDART and STEPHEN HUNT. Halsted, 605 Third Ave., New York, NY 10016, 1976. 181 pp. 15 × 21 cm. Price \$13.95.

*Biochemical Fluorescence: Concepts. Vol. 2.* Edited by RAYMOND F. CHEN and HAROLD EDELHOCH. Dekker, 270 Madison Ave., New York, NY 10016, 1976. 944 pp. 16 × 24 cm. Price \$38.00.

*The Heroin Epidemics. A Study of Heroin Use in the United States, 1965-1975.* By LEON GIBSON HUNT and CARL D. CHAMBERS. Halsted, 605 Third Ave., New York, NY 10016, 1976. 145 pp. 16 × 23.5 cm. Price \$12.95.

*Immunopharmacology.* Edited by MARVIN E. ROSENTHAL and HERBERT C. MANSMANN, Jr. Halsted, 605 Third Ave., New York, NY 10016, 1976. 332 pp. 15.5 × 23.5 cm. Price \$25.00.

*Hormones, Behavior and Psychopathology.* Edited by EDWARD J. SACHAR. Raven, 1140 Avenue of the Americas, New York, NY 10036, 1976. 307 pp. 16 × 24.5 cm. Price \$24.00.