Book Reviews

Advances in Cancer Research. Volume 29. Edited by G. Klein and S. Weinhouse. Academic Press, New York. 1979. ix + 458 pp. 16 × 23.5 cm. $36.00.

This volume is the latest in a series which provides in-depth reviews of selected topics of current interest in cancer research. Generally, the subject matter is heavily weighted toward the biological aspects of the field, and this volume follows that tradition. Subjects treated are "Influence of the Major Histocompatibility Complex on T-Cell Activation" (J. F. A. P. Miller), "Suppressor Cells: Permitters and Promoters of Malignancy?" (D. Naor), "Retrodifferentiation and Fetal Patterns of Gene Expression in Cancer" (J. Uriel), "α-Fetoprotein in Cancer and Fetal Development" (E. Ruoslahti and M. Seppala), "Mammary Tumor Viruses" (D. Moore, C. Long, A. Vaidya, J. Sheffield, A. Dion, and E. Lasfargues), "Role of Selenium in the Chemoprevention of Cancer" (A. C. Griffin) and "The Role of Glutathione and Glutathione S-Transferases in the Metabolism of Chemical Carcinogens and other Electrophilic Agents" (L. F. Chasseaud). This last article is probably the one of most interest to medicinal chemists. It contains an 80-page description of the biology, biochemistry, and reactivity of more than 20 chemical classes with glutathione and its related enzymes. Almost 700 references are provided.

The topics are well documented with an average of 200–300 literature citations. All articles contain references to 1978 literature.

National Institutes of Health **John S. Driscoll**

Substitution Constants for Correlation Analysis in Chemistry and Biology. By C. Hansch and A. J. Leo. Wiley, New York. 1979. iii + 339 pp. 22 × 28 cm. $24.95.

The introductory seven chapters of this book present a lucid discussion of the common substitution constants used in the study of quantitative structure–activity relationships (QSAR). These chapters cover the topics of electronic parameters, steric parameters, hydrophobic parameters, the fragment method of calculating partition coefficients, molar refractivity and parachor, and cluster analysis and design of congener sets. The chapters give a well-referenced brief historical discussion of the topic followed by definitions, sample calculations, and a discussion of the effects of other substituents on the parameter. The remainder of the book, 272 pages, consists of three tables entitled: (1) "Electronic, Steric, and Hydrophobic (TT) Constants", (2) "Partition Coefficients", and (3) "Hydrophobic Fragment Constants".

This book is a must for the individual wanting a clearly written introduction to the area of QSAR. In addition, investigators active in this field will find that the tables will serve as a very complete and extremely useful data source.

Northeastern University **Victor D. Warner**

GLC and HPLC Determination of Therapeutic Agents. Parts 2 and 3. Edited by K. Tsuji. Marcel Dekker, New York and Basel. Part 2: 1978. 25 × 18 cm. xiv + 519 pp. $45.00. Part 3: 1979. 25 × 18 cm. xiv + 547 pp. $45.00.

During the past 2 decades there has been an impressive expansion of our understanding of the metabolism, toxicity, and general behavior of therapeutic agents in mammalian systems. To a large extent, many of the advances have occurred as a result of the rapid growth of high resolution chromatographic techniques, most notably GLC and high-performance LC. Their use in combination with highly sensitive and specific detectors, such as electron capture, element specific detectors, mass spectrometry and others, has made available to researchers from many different disciplines a powerful analytical tool. Indeed, even though a substantial level of basic research effort is still being committed to GLC and high-performance LC, both techniques have now entered the phase of routine use in most bioanalytical laboratories. Many medical and pharmaceutical researchers, who are not necessarily analytical chemists, are now very much dependent on high-performance LC and GLC for their research endeavors.

The large number of publications related to applications of GLC and high-performance LC in drug analysis reflect the impact which these techniques have had in the biomedical field. As often happens, however, much of this information has been widely scattered throughout the scientific literature and not readily available to the routine user. This three-volume series—for a review of Part 1 see *J. Med. Chem.*, **22**, 337 (1979)—represents an ambitious effort to compile this information and present it in the form of a reference guide or handbook.

While Part 1 of this three-volume series has focused on a discussion of the basic principles of GLC and high-performance LC, such as theory and instrumentation, column and detector selection, techniques of automation, etc., the current two volumes deal with specific applications. The material has been organized in terms of GLC and high-performance LC applications to the analysis of specific classes of compounds, such as antihistamines, fat- or water-soluble vitamins, nucleosides and nucleotides, amino acids and peptides, sugars, lipids, drugs of abuse and overdose, barbiturates and anticonvulsants, analgesics and narcotics, antidepressive and antihypertensive agents, preservatives, adrenocorticosteroids, antimicrobial agents, and others. Remarkably, all of this material has been presented with minimal overlap from chapter to chapter. This is no mean task and can only be accomplished through the organizational efforts of the editor, and for this he must be commended.

A most noteworthy feature of all the contributed chapters is the detailed discussion of procedures and methodology for the analysis of the title compounds. Not only are the chromatographic conditions specified in detail but, even more important, procedures for sample recovery and isolation from relevant biological media are clearly spelled out. In effect, the routine user of GLC and high-performance LC in a clinical or biomedical laboratory can almost follow a recipe for the analysis of compounds of interest. Legibility and comprehension of the material is further enhanced by the good quality of the printing and the clarity of the chemical structures and illustrations. As a result, we do have here a comprehensive analytical text with assay methods, of high reliability and dependability as claimed in the preface of the issue.

Northeastern University **Paul Vouros**

Progress in Drug Metabolism. Volume 3. Edited by J. W. Bridges and L. F. Chasseaud. Wiley-Interscience, New York. 1979. ix + 372 pp. 15.5 × 23.5 cm. $48.50.

Just as a "critical mass" of diverse talents is required to fuel an effective drug metabolism department, so the chapters in a volume on drug metabolism must generate a "critical mass" of pertinent, relevant information. This has been achieved in Volume 3 of "Progress in Drug Metabolism". Two of the six chapters deal with techniques crucial to modern drug metabolism studies—HPLC and NMR. The chapter on the former (the authors state that "P" can stand for pressure, performance or price!) is a very reasonable blend of theory (nonmathematical), hardware, and practice, with most of the applications from the fields of pesticide and herbicide analysis. Several large tables give conditions for and reference to the HPLC of hundreds of these xenobiotics. The principles of NMR spectroscopy are succinctly presented in a second chapter, and a limited number of illustrative applications of this method are given for some of the frequently encountered types of metabolic transformations (e.g., aromatic and aliphatic oxidations, methylations, and dealkylations). Although a minor criticism, I believe the authors should have indicated that useful

structural information can now be routinely obtained via proton NMR from 10–20 μg samples thanks to very high-field strengths and computerized Fourier transform techniques. G. T. Brooks' very thoughtful and well-referenced chapter on the metabolism of xenobiotics in insects is a pleasure to read and will remind or inform many of us that insect and mammalial drug metabolism have much more than analytical techniques in common. One of the main themes of this chapter is environmental concern. This fits in nicely with the chapter immediately following, which deals with the metabolic fate of synthetic pyrethroid insecticides in mammals. What happens to animal health drugs, insecticides, etc. after they have served their purpose in the barnyard, field, or feedlot is a question many drug metabolism researchers will be answering from now on. Like the chapter by Brooks, F. Oesch's chapter on epoxide hydratase was written by a person wholly competent to discuss all aspects of his topic. This chapter is "must" reading for anyone seriously interested in the role of drug metabolism in toxicity. Indeed, the entire book can be recommended as a worthwhile investment for anyone "into" drug metabolism.

Merck Sharp & Dohme Research Laboratories **W. J. A. VandenHeuvel**

Annual Drug Data Report. Volume II. 1979/80. Edited by J. R. Prous. J. R. Prous Publishers, Barcelona, Spain. 1979. 290 pp. 24 × 17 cm. $70.00.

This series of annual publications is designed to provide an up-to-date and useful reference tool for all researchers concerned with the chemical and biological aspects of drugs and other substances of pharmacological or biochemical interest. Included in this volume are drugs which have been recently introduced in clinical practice or are under study and are mentioned in biomedical journals, congress, and symposium proceedings.

Each drug is described in monograph form to provide such data as structure, nonproprietary name, research code number, empirical and chemical formula, pharmacological action, toxicity, manufacturer, and references.

Staff

Advances in Chromatography. Volume 17. Edited by Calvin Giddings, Eli Grushka, Jack Cazes, and Phyllis R. Brown. Marcel Dekker, New York. 1979. xiv + 336 pp. 16 × 23.5 cm. $36.50.

Volume 17 of this series includes articles on progress in photometric methods of quantitative evaluation in TLC, ion-exchange packings for high-pressure LC separations (care and use), micropacked columns in gas chromatography, reversed-phase gas chromatography and emulsifier characterization, template chromatography, recent usage of liquid crystal stationary phases in gas chromatography, and the current state of the art in the analysis of catecholamines.

"Advances in Chromatography" is of the utmost interest to analytical chemists, physical chemists, biochemists, environmental scientists, and all other researchers who use chromatography.

Staff

Dopaminergic Ergot Derivatives and Motor Functions. Volume 31. Wenner-Gren Center International Symposium Series. Edited by K. J. Fuxe and D. B. Calne. Pergamon Press, New York. 1979. xiii + 447 pp. 18 × 25.5 cm. $55.00.

In July 1978, an international symposium was held at the Wenner-Gren Center, Stockholm, for the purpose of reviewing the current state of knowledge of dopaminergic mechanisms involved in motor function in the central nervous system. This volume presents the 38 papers by 42 participants at this symposium. Topics covered included the anatomy, physiology, biochemistry, and pharmacology of dopaminergic pathways in the brain. The mechanism of action of ergot alkaloids at monoamine synapses and the contribution that these alkaloids are making in the identification of different categories of dopaminergic receptors were presented.

Clinical studies with ergot derivatives were reported in parkinsonism, Huntington's disease, the Shy–Drager syndrome, and the Steele–Richardson–Olzewsky syndrome. Observations on both therapeutic activity and toxicity were also considered. The dopaminergic ergots appear to be potent antiparkinson agents, yet there seems to be a divergence of opinion as to their therapeutic usefulness. It appears, however, that many new ergoline and ergopeptine compounds have yet to be fully evaluated both in the laboratory and in the clinic before the usefulness of these new ergot derivatives can be fully assessed. The value of this volume is somewhat diminished by the lack of an author index and a rather inadequate subject index.

Staff

Aromatic and Heteroaromatic Chemistry. Volume 7. Specialist Periodical Reports. Edited by H. Suschitzky and O. Meth-Cohn, Senior Reporters. The Chemical Society, Burlington House, London. 1979. xiii + 368 pp. 14 × 22 cm. $72.50.

The senior reporters and chapter organizations are the same as for the previous volume. The chapter on six-membered homocycles appears in this volume but without the material missed in the previous volume. The two chapters on naturally occurring aromatic compounds have been omitted. This volume is too expensive to recommend for individual purchase but it is worthwhile looking at for a review of what is happening with one's favorite aromatic compound.

Staff

Drug Fate and Metabolism. Methods and Techniques. Volume 3. Edited by Edward R. Garrett and Jean L. Hirtz. Marcel Dekker, New York. 1979. xiv + 356 pp. 15 × 23 cm. $39.75.

According to the editors, this volume is the third of a series that is intended to "review all the techniques, physical, chemical, biological, medical, and mathematical, which can be applied to the study of drug fate in the organism. It is addressed primarily to the research scientist and is devoted to *methods*, with only the minimal theory given for perspective, appreciation, and proper evaluation of results." It happens that this reviewer has perused the three volumes published through 1979 and they consistently seem to meet the stated objectives.

Volume 3 specifically contains chapters on "Mass Fragmetography", "Paper Chromatography", "Synthesis of Isotopically Labeled Compounds", "Colorimetry", "Radioactivation Analysis", "Study of Drug–Protein Interaction with Diffusivity Measurements", and "Physiologic and Metabolic Variables in Bioavailability Studies". Though authored by different individuals, there is uniform quality in each chapter and this reviewer could find few faults either individually or collectively.

The "Drug Fate and Metabolism" series is somewhat unusual, since the editors have chosen to publish chapters (in appropriate size volumes) as they are received rather than organize them in some orderly fashion. The purpose for this strategy is purported to provide "benefits to the readership of prompt publication" which was deemed to "far outweigh the need for subclassification". This is a tricky argument which commits the investigator to collecting a "library" of volumes to achieve a balance of topics. However, other than cost (!), the reviewer cannot judge this premise too harshly because of the high quality of the works developed thus far. It is hoped that the editors (and the authors they engage) will continue to prepare contributions of worth. The resulting series will thus continue to emerge as an important resource for students and investigators in drug metabolism and related areas of endeavor.

University of Texas at Austin **Robert V. Smith**

Nucleosides as Biological Probes. By Robert J. Suhadolnik. Wiley, New York. 1979. xv + 346 pp. 15.5 × 23.5 cm. $37.50.

This book presents a compilation of some biochemical and cellular effects, biosynthesis, chemical synthesis, and clinical applications for a number of naturally occurring and certain closely related derivatives. The organization is rather unique in that the nucleosides are categorized according to their use or mode of action as follows: Chapter 1, "Inhibition of Cell Wall Synthesis, Cell Wall Receptors and Transport, Viral Coat Formation, Fungi, and Yeast"; Chapter 2, "Inhibition of Protein Synthesis"; Chapter 3, "Inhibition of RNA Synthesis"; Chapter 4, "Inhibition of DNA Synthesis, Viruses, and Neoplastic Tissue"; Chapter 5, "Inhibition of Adenosine Deaminase and Immunosuppressive Activity of Nucleoside Analogs"; Chapter 6, "Inhibition of Purine and Pyrimidine Interconversions"; Chapter 7, "Hyperesthetic and Hyperemic Nucleosides"; Chapter 8, "Inhibition of Cyclic-AMP Phosphodiesterase"; Chapter 9, "Induction of Hypocholesterolemia"; Chapter 10, "Naturally Occurring Nucleosides with Limited Biological Activity". This organization is somewhat different from that presented in the previous book by the same author on "Nucleoside Antibiotics". However, the coverage of newly discovered nucleoside analogues is in more detail than the coverage for nucleosides included in the previous volume. This makes the availability of the previous volume at least desirable, if not necessary, in order to have ready access to complete information about the specific nucleoside being discussed.

Overall, this book is a definite improvement over the previous book in terms of style, attention to detail, and decreased incidence of typographical and structural errors. However, the reader should be aware that in any undertaking of this magnitude there will always be some errors that remain irregardless of the effort expended to obtain a perfect manuscript (e.g., structure of norplicacetin (Figure 2.7), structure 12 in Scheme 3.1 on page 164, the last line of the second paragraph on page 222 should read Ara-A is not a chain..., etc.). The title is also somewhat misleading, since this book does not deal with nucleosides, per se, but only with naturally occurring nucleosides and certain closely related derivatives. This book provides a very thorough up-to-date literature coverage of biochemical effects in a wide variety of systems, including several recently discovered aspects of some previously studied naturally occurring nucleosides. This book could not be recommended as a primary textbook but could serve as a secondary resource or reference text for an advanced course on nucleosides, nucleoside antibiotics, biochemical pharmacology, chemotherapy, etc. Also, this book is definitely recommended for all workers involved in research with nucleosides or nucleotides.

University of Michigan, Ann Arbor **Leroy B. Townsend**

The Receptors: A Comprehensive Treatise. Volume I. General Principles and Procedures. Edited by R. D. O'Brien. Plenum Press, New York. 1979. xiv + 345 pp. 17 × 25.5 cm. $37.50.

With the recent development of tritiated compounds of high specific activity (range of 1–100 Ci/mmol), binding of certain ligands to specific tissue preparations with anatomically specific, saturable, and chemically stereospecific characteristics has led to a significant proliferation in the study of biological receptor systems. Daily, one sees in the chemistry and pharmacology literature evidence being presented for a putative receptor or data leading to a postulation of the effect of a particular receptor on a biological or chemical function. R. D. O'Brien has orchestrated the efforts of a number of distinguished workers in the field to produce a volume which is a "must" for the investigator interested in this research or the scientist pursuing an understanding of the complexities of receptor physiology.

The book is constituted of eight chapters, all written clearly and concisely, with illustrative figures and tables to clarify specific points made by the authors. Certain chapters are of particular interest to the pharmacologist: Chapter 2, "The Pharmacon–Receptor–Effector Concept: A Basis of Understanding the Transmission of Information in Biological Systems"; Chapter 3, "The Link Between Drug Binding and Response: Theories and Observations". For the chemist, neurobiologist, pharmacologist, or "receptorologist", certain chapters address problems encountered in the analysis of receptor kinetics: Chapter 4, "Kinetics of Cooperative Binding"; Chapter 5, "Distinction of Receptor from Nonreceptor Interactions in Binding Studies". Two of the chapters focus on the use of particular membrane systems to elucidate general properties of membrane function: Chapter 1, "Reconstitution of Membrane Transport Function"; Chapter 6, "Incorporation of Transport Molecules into Black Lipid Membranes". Chapter 7, "Visualization and Counting Receptors at the Light and Electron Microscope Level", approaches the problem of receptor density and localization from the anatomist's perspective cataloging the various techniques used currently in the field. The final Chapter, "Problems and Approaches in Noncatalytic Chemistry", is written by the editor and outlines tersely, yet clearly, the difficulty which obtains from the attempt to measure a physiologic process in which an observable product is not generated.

In summary, this is an extremely useful text, to be followed by a series, each volume dedicated to a particular receptor (Volume II is to be on the nicotinic receptor), and one which should be an aid to all those involved in the study of receptor structure and function.

Harvard Medical School **George W. Arana**

Phosphorus in the Environment: Its Chemistry and Biochemistry. Ciba Foundation Symposium. No. 57 (New Series). Excerpta Medica, New York. 1979. 320 + ix pp. 24.4 × 16.5 cm. $35.25.

Published symposia proceedings are likely to be of greatest value when the symposium deals with a relatively limited topic on which all participants are expert, so that the latest advances in the field can be critically discussed. Despite (or, more likely, because of) the inevitable overlapping of subjects of papers in such symposia, discussions after the formal papers (and particularly the disagreements among the participants) can be quite enlightening.

Previous Ciba symposia have often been models of how such meetings should be run, and some aspects of the Symposium on The Economy and Chemistry of Phosphorus, of which this volume is the record, are equally exemplary. For instance, the papers by C. S. Reynolds, R. W. Collingwood, P. A. Gilbert, and A. L. de Jong and G. R. Alexander, Jr., dealing with phosphates in detergents and sewage, and the discussions after those papers—in particular the lengthy (8 page) commentary by T. G. Brydges after Reynolds' paper—should be fascinating even to those who, like this reviewer, are essentially laymen in the field. The symposium's treatment of a second major subject of discussion—the use of phosphates as fertilizer, with emphasis on the loss of phosphate in nonutilizable soil-bound forms—while interesting, was somewhat less satisfactory, due in large part to the fact that the problem is relatively intractable at present.

Unfortunately, the organizers of the symposium chose to widen the list of papers to cover a vast area ranging from the biochemistry of phosphorus, to geological phosphorus cycles, to economics of phosphate mining. These papers, which are not directly related to the topic of phosphorus in the environment, inevitably tend to be rather diffuse. Little is gained, for instance, by reading that ores with relatively low phosphate concentrations may be commercially useful if they are conveniently located near their markets or near inexpensive means of transport. These papers are usually found in the earlier part of the volume, so that nearly half the text must be waded through (or skipped over) before the meat of the symposium is approached.

Is this book relevant to the professional concerns of readers of this journal? Of the 15 lectures, T. D. Inch's discussion of "The Biological Importance of Organophosphorus Compounds Containing a Carbon–Phosphorus Bond" and Gilbert and de Jong's paper on "The Use of Phosphate in Detergents and Possible Replacements for Phosphate" should be of great interest. A. J. Kirby's paper on "The Organic Chemistry of Phosphate Transfer" is an excellent brief introduction to that important field. Other papers in the symposium are likely to be read for general background, rather than relevance to medicinal chemistry.

University of Massachusetts **Bernard Miller**

Mass Spectrometry in Biochemistry and Medicine. Volume 2. Edited by Alberto Frigeno. Plenum Press, New York and London. 1979. x + 492 pp. 25 × 17 cm. $45.00.

This volume comprises a collection of research papers presented at the 5th International Symposium on Mass Spectrometry in Biochemistry and Medicine held at Rimini, Italy, in June of 1978. The contributed papers cover a fairly comprehensive overview of the title fields, with topics ranging from instrumentation to identification of drugs and their metabolites, quantitation, mechanisms of biotransformations, and drugs of abuse. As is typical of publications of this type, most of the articles could have easily been printed in the appropriate specialty journals. Nonetheless, their compilation under a single cover provides for more convenient access, and the issue should be useful to people working in biochemistry, medicine, toxicology, forensic science, clinical chemistry, and pollution research.

Staff

Modern Pharmaceutics. Volume 7. Edited by G. S. Banker and C. T. Rhodes. Marcel Dekker, New York. 1979. viii + 826 pp. $85.00.

"Modern Pharmaceutics" is an attempt to create an undergraduate textbook which "comprehensive(ly)" covers the various facets "of the design and evaluation of drug dosage forms". Toward this goal, the editors and authors should be commended for their effects in trying to accomplish this feat, for there is a definite need for such a book. Though the book contains some very good chapters which could serve as excellent resource material for an introductory course in pharmaceutics, overall there are too many shortcomings for me to recommend its adoption as a textbook. Below I have listed a few.

(1) The coverage of the various types of drug delivery systems is very uneven (typical of many multiauthored books). Some chapters provide concise and thorough accounts of their subject, while others are terse and incomplete. In the section on aerosols, for example, there is no indication of the types of formulations that are used for inhalation and topical application of drugs, the optimal properties desired for these formulations, and the procedures that are customarily used to evaluate these systems. The use of devices which produce aerosols without liquefied or compressed gases is not even mentioned. On the other hand, the chapter on topical formulations provides a good survey of the subject and is well referenced.

(2) The basic principles of drug absorption, bioavailability, pharmacokinetics, and drug stability described in Chapters 2, 3, 4, 5, and 7 are succinct and clear, but more important, they touch on the relevant aspects of these subjects. However, subjects such as solubility, tonicity, micromeritics, wetting, ionic equilibria, and various aspects of surface chemistry are only glanced over. These subjects are equally as important in the development of dosage forms as is pharmacokinetics; why not equal coverage?

(3) Any book on dosage form design should include discussions of the more recent approaches that have been developed. Liposomes, prodrugs, biodegradable polymers, coprecipitates, nanoparticles, and osmotic pumps are not described in the book, yet they represent a few of the newer ways of administering drugs.

In addition to the topics mentioned above, the book contains chapters on disperse systems (suspensions and emulsions), solid oral dosage forms, parental products, opthalmic systems, depot medications, packaging of pharmaceuticals, quality control, optimization of formulation and processing variables, and the food and drug regulations. These topics are all treated in a descriptive manner, shying away from mathematics.

This reviewer is concerned about students and faculty who are being asked to pay rapidly escalating prices for journals and books to publishers. Eighty-five dollars is an exorbitant price for this textbook.

State University of New York **Eli Shefter**

Encyclopedia of Chemical Technology. Third Edition. Volume 8. Diuretics to Emulsions. By Kirk-Othmer. Wiley, New York. 1979. xxvi + 930 pp. 18.5 × 26 cm. $120.00.

Volume 8 of this third edition will be of particular interest to medicinal chemists due to its inclusion of a comprehensive discussion of diuretics. Other topics ranging from driers and metallic soaps to emulsions are included.

Staff

Books of Interest

Immunological Aspects of Infectious Diseases. By G. Dick. University Park Press, Baltimore, Md. 1979. xii + 524 pp. 16 × 24 cm. $24.50.

Advances in Enzymology. Volume 49. By Alton Meister. Wiley, New York. 1979. v + 373 pp. 15.5 × 23.5 cm. $24.95.

Further Perspectives in Organic Chemistry. Ciba Foundation Symposium No. 53 (new series to commemorate Sir Robert Robinson and his research). Excerpta Medica, Amsterdam. 2nd Printing. 1979. viii + 212 pp. 17 × 24.5 cm. $23.50.

Sex Hormones and Behavior. Ciba Foundation Symposium No. 62 (new series). Excerpta Medica, Amsterdam. 1979. viii + 382 pp. 17 × 24.5 cm. $41.00.

Enzyme Defects and Immune Dysfunction. Ciba Foundation Symposium No. 68 (new series). Excerpta Medica, Amsterdam. 1979. ix + 289 pp. 17 × 24.5 cm. $35.00.

Proteins at Low Temperatures. By Owen Fennema. American Chemical Society, Washington, D.C. 1979. vi + 233 pp. 15.5 × 23 cm. $31.25.

Enzymes in Health and Disease. Inaugural Scientific Meeting of the International Society for Clinical Enzymology, London, 1977. By D. M. Goldberg and J. H. Wilkinson. S. Karger, Basel. 1978. xii + 237 pp. 18 × 25 cm. $58.75.

Microcapsule Processing and Technology. By Asaji Kondo. Edited and revised by J. Wade Van Valkenburg, Marcel Dekker, New York. 1979. ix + 181 pp. 15.5 × 23.5 cm. $22.50.

Hypothalamic Hormones—Chemistry, Physiology, and Clinical Applications. Proceedings of the 2nd European Colloquium on Hypothalamic Hormones, Tubingen, July 1976. Edited by D. Gupta and W. Voelter. Verlag Chemie, Weinheim, 1978. xii + 754 pp. 17.5 × 24.5 cm. $65.70.

Encyclopedia of Chemical Technology. 3rd Edition. Volume 7. Edited by Kirk Othmer. Wiley, New York. 1979. xxvi + 891 pp. $120.00.

Brain and Mind (Symposium on Brain and Mind held at the Ciba Foundation, London, December 5–7, 1978). New Series No. 69. Excerpta Medica, Amsterdam. 1979. ix + 425 pp. 17 × 24.5 cm. $35.00.

Progress in Macrocyclic Chemistry. Volume 1. By Reed M. Izatt and James J. Christensen. Wiley, New York. 1979. xi + 276 pp. 16 × 23.5 cm. $27.00.

Environmental Health Criteria 9 (DDT and Its Derivatives). World Health Organization, Geneva. 1979. 175 pp. 14 × 20.5 cm. Swiss Francs 16.00.

Perspectives in Cardiovascular Research. Volume 3. Ischemic Myocardium and Antianginal Drugs. By Martin M. Winbury and Yasushi Abiko. Ravan Press, New York. 1979. xv + 256 pp. 16 × 24 cm. $23.00.