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BOOKS

REVIEWS

Burger's Medicinal Chemistry, 4th Ed., Part III. Edited by MANFRED E. WOLFF. Wiley, 605 Third Ave., New York, NY 10016. 1981. 1354 pp. 18.5 × 26 cm. Price \$100.00.

This book is part of an excellent series in the medicinal chemistry field. With contributions by a number of knowledgeable and literate authors, the contents include drugs acting on the central nervous system, the autonomic nervous system, the cardiovascular system, and the renal system. The book is a well-balanced blend of the theoretical and practical aspects of the field and its potential application to new discoveries.

Each chapter is well planned, emphasizes biochemical rationale, structure-function relationships, and metabolism, and is adequately referenced to provide the reader with sources of more detailed information. This text is also characterized by thoughtful attention to pedagogy, since the prose does more than fill the space between structures and equations. The book contains many useful tables, graphs, and other illustrations and is replete with numerous structures.

Professor Wolff has assembled an informative and excellent text, so it is regrettable that the major limitation of this potentially useful text appears to be its price. Overall, the present volume together with Parts I and II of the series offers a high quality and useful source of information with broad application across the biomedical sciences. Professor Wolff upholds the series' reputation as one of the classic and indispensable reference works for those in teaching and research.

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Principles of Medicinal Chemistry. Edited by WILLIAM O. FOYE. Lea & Febiger, 600 S. Washington Square, Philadelphia, PA 19106. 1981. 931 pp. 18 × 26 cm. Price \$45.50. (Canada \$54.50).

This book assembles 39 chapters of information associated with textbooks intended for undergraduate courses in organic medicinal chemistry. The first six chapters give effective coverage of general introductory principles; thereafter, with the exception of Chapters 27-29 (which provide good introductions to drugs of plant origin and subsequent chapters on chemotherapeutic agents), the book proceeds systematically through major pharmacological or therapeutic classes of drugs.

Discussions are generally restricted to organic agents, although actions of some inorganic agents such as iodine and iodides, sodium nitroprusside, and gold sodium thiosulfate are cited. The last chapter is also an exception to the overall organic medicinal chemical content in that it incorporates a very good introduction to radiopharmaceuticals. Finally, there is an appendix containing useful compilations of pKa values for a number of drugs and pH values for body fluids.

The authors of the chapters dealing with the pharmacological classes of agents have used a variety of formats to cover their topics. In general, they discuss pharmacological actions, absorption, distribution, metabolism and excretion, clinical uses, and structure-activity relationships and give appropriate examples. Often this information is set out against a background survey of biochemistry pertaining to the group under consideration. In some of these chapters, the explanations of the agents' pharmacological actions, based on the structural reasons for their ability to fit into a biochemical sequence, are impressive. The overall quality of these chapters, despite differing organizational styles, is very good.

While the individual chapters impress as compact, self-contained entities, some readers may notice instances of redundancy. For example, the scheme for catabolism for certain neurotransmitters is repeated in detail in several chapters and the pharmacology of a number of therapeutic agents is given several times. It is possible that such repetition cannot be avoided in a multiauthored work. In addition, while background pharmacology, biochemistry, and the clinical uses of the agents are almost always thoroughly treated, chemical properties such as acidity, basicity, and chemical stability are sometimes not discussed. Perhaps inclusion of such coverage would not only help students appreciate some pharmaceutically important properties but would also help them relate structure and chemical properties to absorption, distribution, metabolism, excretion, and biological actions.

In summary, all chapters bear evidence of careful scholarly preparation. They are generally thorough and current in their coverage and are quite readable. The book meets its objectives very well and should afford excellent reading for medicinal chemists, pharmacologists, and students in pharmacy and related disciplines.

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Toxicants and Drugs: Kinetics and Dynamics. By ELLEN J. O'FLAHERTY. Wiley, 605 Third Ave., New York, NY 10016. 1981. 398 pp. 16 × 24 cm. Price \$42.50.

This useful book approaches a complex subject with a disarming frankness not usually found in such texts. In the preface, the author states that the first chapter reviews algebra and calculus at a level designed to give nonmathematicians—even antimathematicians!—confidence that they can "do" kinetics. After hopefully instilling such confidence and expertise, the reader is eventually lead into sophisticated concepts relating to disposition in saturable and nonlinear systems, the plateau principle of chronic exposure, receptor theory, pharmacodynamics and dose-response relationships. The book is a gem. A useful list of definitions of various symbols is included as a separate section and as an added bonus, a number of interesting problems taken from examples in the