

names, molecular formulas, a brief description of drug properties, and an American bibliographic reference where available. The Pharmacological Index identifies chemicals with related pharmacological properties; the Index Medicus provides subject headings under which the individual drugs are listed, but applies only to the 1967 edition of its American counterpart.

Those interested in Soviet medicine will find this Index invaluable. Any medicinal chemist will recognize, among the entries, old friends in new quite sensible names.

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ALFRED BURGER

Index to Reviews, Symposia Volumes and Monographs in Organic Chemistry for the Period 1963-1964. Compiled and Edited by NORMAN KHARASCH and WALTER WOLF, University of Southern California at Los Angeles. Pergamon Press Ltd., Oxford, England. 1966. x + 326 pp. 22 × 28.5 cm. \$17.50.

This volume, the third of the "Index" series, covers the literature for the period 1963-1964. The growth of the literature of organic chemistry is reflected by the number of entries in this volume which contains about 20% more than the previous one. Searches become more tedious and time consuming with the increasing size of the literature, hence a volume such as this is a welcomed aid. The Index is limited to works in the English, French, and German languages. However, Russian reviews which have been translated into English are included in this issue. The accuracy of the references and author and subject indexes as determined by checking random selections is superior. The editors have continued the helpful tradition of listing current addresses of publishers. This book should be of value not only to students and researchers, but also to technical librarians, writers, and bibliographers. The Index series will probably become the starting point for many literature searches in organic chemistry. Every library which serves organic chemists should have this series.

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DAVID W. BUYKIN, JR.

Glass Electrodes for Hydrogen and Other Cations. Principles and Practice. Edited by GEORGE EISENMAN, University of Chicago. Marcel Dekker, Inc., New York, N. Y. 1967. xii + 582 pp. 17 × 23 cm.

It has become apparent in recent years that the familiar pH glass electrode represents only an extreme example of a family of glass compositions which can be varied to respond selectively to ions other than H⁺. Hence, this book, which is about 40% theoretical and 60% practical, is a timely reference work for scientists interested in the electrometric measurement of ion activities. Dr. Eisenman has carefully edited contributions by 21 investigators from laboratories all over the world and, in addition, has himself contributed four important chapters. They describe in great detail the glass electrodes that are available commercially, the construction of glass electrodes for special purposes, tricks of the trade in measuring cations in mixtures, uses of glass electrodes in analytical chemistry, in soil studies, in analysis of biological fluids both *in vitro* and *in vivo*, and the design and use of microelectrodes for intracellular use. The final chapter summarizes the numerous clinical applications of cation-sensitive glass electrodes. Since the measurement of ionic concentration or activities by glass electrodes in many situations now exceeds other methods in precision and accuracy, this up-to-date book is recommended to engineers, chemists, and biologists, including those involved in medical research, who are not yet familiar with these techniques and applications.

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D. R. H. GOURLEY

Enzyme and Metabolic Inhibitors. Volumes II and III. By J. LEYDEN WEBB. Academic Press Inc., New York, N. Y. 1966. Vol. II: xx + 1237 pp. \$34.00. Vol. III: xx + 1028 pp. \$32.00.

One's first reaction to these all-encompassing volumes on Enzyme and Metabolic Inhibitors is "How could one man, in a lifetime, read most of the papers dealing with inhibitors, collate all of the data, and summarize it for ready reference?" The answer is he couldn't, for Professor J. Leyden Webb died before completing Volumes IV and V of this series. We hope that someone will take up the task of writing these two volumes, for they were to have treated some of the most interesting and useful metabolic inhibitors.

The first volume of this series dealt with "General Principles of Enzyme Inhibition" and Volume II begins the discussion of specific inhibitory agents. Appropriately, it opens with a chapter on malonate. The discovery by Quastel and Wooldridge in 1927 that succinic dehydrogenase was competitively inhibited by the next smaller homolog of its substrate played an important part in formulating the concept of antimetabolites combining specifically with active sites of enzymes. Each chapter treats the historical developments and the physical and chemical properties of the inhibitor before discussing the inhibitory phenomena. The nearly 300 pages of Chapter 2 deal with a potpourri of analogs of enzyme reaction components and this is followed by individual chapters on Dehydracetates, Sulfhydryl Reagents, Oxidants, *o*-Iodosalicylate, and Mercurials.

The quality of the presentation varies considerably in different parts of the book. Occasionally keen insight is displayed regarding the mode of action of specific inhibitors, and there are some excellent sections where precautions in interpretation of results with inhibitors are carefully brought to the reader's attention. But, in many places the text rambles on at great length about irrelevancies. For example, there is a huge table reporting the per cent inhibition of respiration by various concentrations of malonate with tissues, cells, or particles from scores of organisms and with ten different substrates. Far more valuable is a quarter-page, three-column table reporting the *K_i* for malonate with succinic dehydrogenases from various sources.

These volumes invite comparison with the two-volume "Metabolic Inhibitors, A Comprehensive Treatise" edited by R. M. Hochster and J. H. Quastel for the same publisher only 3 years earlier. I prefer the order, authoritative treatment, and conciseness of the multi-authored work.

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HENRY A. LADDY

Quelques Aspects de la Chimie des Médicaments. By ALBERT and CHARLES LESPAGNOL, DENISE BAR, and MICHEL DAUTREVAUX. Masson et Cie., Editors, Paris. 1966. viii + 268 pp. 16 × 24 cm. Paperback, 78 Francs.

The aspects of drug chemistry treated in this book are essentially the organic-preparative methods by which selected numbers and types of drugs have been synthesized. The methods chosen are published procedures; many of them are outdated and do not agree with current manufacturing processes. The drugs are classified by schemes that would puzzle pharmacologists. Biological information shifts from dosage regimes to lause descriptions of the activity, with only occasional reference to the mechanism of drug action. Even for natural products the authors steer squarely to synthetic considerations. Drug metabolism is not dealt with. The scope of this book is reminiscent of some German books on drugs about 35 years ago. It is hard to believe it has been written in 1966.

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