NEW BOOKS

edited by F. W. Quackenbush

FATTY ACIDS: THEIR CHEMISTRY, PROPERTIES, PRODUCTION AND USES, Second Edition, Part 5, edited by Klare S. Markley (Interscience Publishers, New York, 1968).

Part 5 is basically an up-dating of the corresponding chapters which appear in Parts 1 and 2. As is true with so many scientific books, the information presented is to a degree out of date by the time the book is published. I think the Editor should be commended on his diligence to have on every library shelf reference books on fatty acids which contain current technology. The greater portion of the references in each chapter spans the years 1960 to 1965 with some as recent as 1966. Each author of the various chapters have done an excellent job in reviewing the most recent publications on fatty acids and presenting it in a concise readable style.

The Chapters on Nomenclature, Classification and Description of Industrial Acids and Spectral Properties contain a significant amount of new and more accurate material. This has resulted from the vast array of instrumental tools and techniques which have been developed since the initial publication and the application of these by the fatty acid or lipid chemist in his specialty field.

Instrumentation has been of significant value in studying the kinetics of both heterogeneous and homogeneous hydrogenations. Therefore, the up-dating of Chapter 12-A on Hydrogenation which reviews this work is a real asset to this volume.

A considerable amount of information has been added to the chapter on Esters and Esterification. A discussion of such products as vinyl, polyvinyl and acrylate esters, aminoacylglycerides, lactic acid esters and sucrose esters are included and should be of considerable value to both the industrial and academic chemist.

This volume as well as the other preceeding volumes are a real asset to the field of Fatty Acid Chemistry. They will not remain unused on library shelves. The editor and authors should be congratulated on presenting their material in such a way that it will be of tremendous value to all people doing research in the field of fatty acids and lipids.

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PHYSIOLOGICAL CHEMISTRY OF LIPIDS IN MAMMALS, by Edward J. Masoro (W. B. Saunders Co., Philadelphia, 1968, 304 p.).

It has been customary for modern textbooks of biochemistry to discuss briefly the biochemical aspects of lipids, i.e., their metabolism, and give only passing reference to the physiological importance of lipids. In the same manner, most works in physiology also pay little attention to the role or lipids. This book, as written by the author is intended to bridge the gap between modern biochemistry and physiological text books. The goal of the book as stated by Dr. Masoro is to present a basic understanding of the biochemistry of lipids in mammals and to relate this knowledge to the physiology of the normal and diseased animal. This is done as follows: the first thirteen chapters are concerned with the chemistry and metabolism of the various lipid classes. Additional chapters discuss the interrelationships between lipid chemistry and physiology in relation to digestion and absorption of lipids, the fate of dietary lipids and fat mobilization. The subjects of interrelations between lipid and carbohydrate metabolism, lipid metabolism during exercise and cold exposure are explored. Separate chapters are given to discussion of obesity, fatty liver, the role of lipids in cardiovascular and respiratory physiology and pathology as well as the function of lipids in the membranes of mammalian cells. This book is intended to be a portion of a series, other books will deal with proteins and nucleic acids, carbohydrates, energy metabolism, and acid base homeostasis. The level of the present book suggests its use for undergraduate students, beginning graduate students, physicians, and anyone who is interested in pursuing the relationships between lipids and physiology. The index is detailed and adequate. For the convenience of the reader who may be interested in further information in any topic discussed within individual chapters, a selected set of titled references is included at the end of each chapter. These references should render the book much more valuable to the reader.

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LIPID CHROMATOGRAPHIC ANALYSIS, Vol. 2, edited by Guido V. Marinetti (Marcel Dekker, Inc., New York, 1969, 596 p., $27.50).

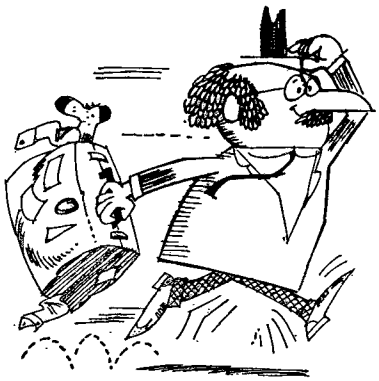
This book, which is directed to less polar lipids, is in some ways a consistent and suitable companion to Vol. 1 which covered the polar lipids. This volume is divided into the following 10 chapters: Paper Chromatography of Steroids, by Frank M. Ganis; Chromatography of Sterols and Steroids, by B. P. Lisboa; Thin Layer Chromatography of Bile Alcohols and Bile Acids, by Peter Eneroth; Gas Chromatography of Cholesterol and Sterol Precursors, by R. Fumagalli; Gas Chromatography of Bile Acids, by A. Kuksis; Chromatography of the Prostaglandins, by P. W. Ramwell and E. G. Daniels; Chromatography of Vitamins A and D, by Hector F. DeLuca, Maij H. Zile, and Pat F. Neville; Chromatography of Tocopherols, by John G. Bieri; Chromatography of Hydrocarbons, by J. Oro, D. W. Nooner, and R. J. Olson; Clinical Analyses of Steroid Hormones by Gas Chromatography, by Arthur Karmen and Jeffrey L. Marsh.

Each chapter contains a helpful outline and table of contents. Unlike Vol. 1, only one chapter has conveniently divided the bibliography by topics. This is an unfortunate omission for the reader in the cases of long chapters or chapters dealing with many compounds. Both author and subject indices are given.

The first five and the last chapters are concerned with the chromatography of steroids, sterols, and bile acids. It is not clear why the chapter on clinical aspects of gas chromatography was placed at the end of the book instead of with the other chapters on sterols and steroids. These chapters are well interdigitated and present the best and worst features of any given approach. Only the chapter on paper chromatography devotes extensive attention to extraction procedures. This chapter is confined to practical applications in contrast to chapters which attempt to review the literature. The chapter on gas chromatography of bile acids provides an extensive and systematic review of applications of the method in addition to the author's experience.

In contrast to Vol. 1, many of the chapters appear to be reviews of the literature in a given area with a minimum of personal experience cited. The reader may well be skeptical of an author's reference to other methods with-

(Continued on page 326A)



Meetings

AOCS National Meetings

Oct. 5–8, 1969—Minneapolis, Leamington Hotel.
April 26–30, 1970—New Orleans, Jung Hotel.
Sept. 27–Oct. 1, 1970—Chicago, Conrad Hilton Hotel.

Other Organizations

June 22–26, 1969—23rd Congress International d'Esthetique et de Cosmetologie (Vienna Congress), Wiener Hofburg, Vienna.
Aug. 17–24, 1969—3rd NMR Symposium, Physical Chemistry Division and University of Toronto, Toronto, Ontario, Canada.
Aug. 24–26, 1969—National Soybean Processors Association Annual Meeting, Brown Palace Hotel, Denver, Colo.
Aug. 20–27, 1969—12th International Conference on Coordination Chemistry, University of Sydney, Australia.
Aug. 27–29, 1969—Symposium on Multiple Bonding in Inorganic Chemistry, University of Manitoba, Winnipeg, Manitoba, Canada.
Sept. 3–5, 1969—15th Canadian High Polymer Forum, Queen's University, Kingston, Ontario, Canada.
Sept. 7–11, 1969—XIIIth International Conference on the Biochemistry of Lipids, Eugenides Foundation, Athens, Greece.
Sept. 8–9, 1969—Society of Cosmetic Chemists National Seminar, Riverfront Inn, St. Louis, Mo.
Sept. 8–12, 1969—International Symposium on Conformational Analysis, Universite Libre de Bruxelles, Brussels, Belgium.
Sept. 23–25, 1969—8th Annual Meeting of ASTM Committee E-19 on Chromatography, Sheraton Hotel, Philadelphia, Pa.
* Oct. 19–22, 1969—19th Canadian Chemical Engineering Conference, The Canadian Society for Chemical Engineering, and 3rd Symposium on Catalysis, Physical Chemistry Division, University of Alberta, Edmonton, Alberta, Canada.
* Oct. 27–30, 1969—24th Annual ISA Conference & Exhibit, Houston, Tex.
Nov. 2–7, 1969—Society of Cosmetic Chemists Arden House Conference, Joint Sponsorship with Columbia University College of Pharmacy, Arden House, Harriman, N.Y.
Dec. 2, 1969—Society of Cosmetic Chemists Annual Scientific Meeting and Medal Award Dinner Dance, Americana Hotel, New York City.

*** Additions to previous calendar**

• *Obituaries*

Word has been received of the recent death of Paul R. Sheffer ('37), Tech. Safety Comm. Chm., Solvent Extr. Subcomm. Co-Chm., in Gettysburg, Pennsylvania.

James V. Wilkerson ('45), Plant Manager of Blue Arrow, Inc., died April 14, in Jacksonville, Florida.

Allan Berne-Allen ('65) Research Consultant, died April 15, 1968, in Sarasota, Florida.

• *New Books . . .*

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out some comment by the author on his own experience with that method.

Frequent use is made of the term "quantitative" which appears to mean 80% to 100% recovery. It would have been helpful if the editor had established a uniform definition such as 100% ± 1% or 5% recovery.

Volume 3 contains far too many R_f tables and far too few actual photographs or schematic drawings of papers or plates. Such tables of R_f values give no indication of spot spreading or overlap unless standard deviations are given.

Volume 2 is an indispensable supplement to Volume 1 for those engaged in biomedical research. As indicated by the contributors' addresses, most of the chapters are primarily of interest to biomedical researchers or the drug industry. The chapters on chromatography of hydrocarbons, tocopherols, and vitamins A and D have much broader application and would be of general interest.

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AUTOXIDATION OF HYDROCARBONS AND POLYOLEFINS: KINETICS AND MECHANISMS, by Leo Reich and Salvatore S. Stivala (Marcel Dekker, Inc., New York, 1969, 527 p., $29.75).

The authors have succeeded very well in achieving the objectives they established in the preface. The eight chapters in the book more than adequately cover the important aspects of the subject of autoxidation of hydrocarbons and polyolefins. This reviewer would have liked to have seen more information on the isolation and separation of products, and product distributions, but that would have made the book inordinately long. The book should be very useful to those investigators interested in the autoxidation of fats and its prevention, oxidation processes in general involving both saturated and unsaturated lipids, and the whole host of oxidation processes of such vast importance today. Although there is limited detail on the autoxidation of lipids themselves, there are so many parallels between the oxidation of substrates described in this book and lipids that there should be no problem in transferring information from one field to the other. The book includes the most thorough and detailed compilation of kinetic information on autoxidation that this reviewer has seen. The book is recommended with only one reservation; the price seems outrageously high.

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Old JAOCS Issues?

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