

Publications

Book Reviews

Lipid Research Methodology, edited by Jon A. Story, Laboratory and Research Metabolism Biology and Medicine, Vol. 10 (Alan R. Liss Inc., 150 Fifth Ave., New York, NY 10011, 1984, 296 pp., \$48).

A major aim of this volume is to help alleviate some of the difficulties encountered when implementing a new method. The methods are described in considerable detail and are critically assessed. For example, the first chapter by Naito and David describes procedures for the determination of cholesterol, triglyceride, phospholipid, and other lipids in blood and other tissues. The authors have selected a few methods which they have found to be the most useful and reliable. They also offer a number of practical suggestions to help the worker unfamiliar with the particular methodology. In the second chapter Kuksis gives a detailed account of the quantitative and positional analysis of fatty acids. Ferreri describes the fractionation of plasma lipoproteins and evaluates preparative methods. The clinical and experimental methods for the determination of cholesterol absorption are described by Gibson and the absorption of lipid and lipoprotein synthesis are discussed by Tso and Simmonds. The final three chapters deal with enzyme methods of importance in the study of lipid metabolism. Story describes cholesterol synthesis and degradation. The quantitation of the role of fatty acid synthesis is described by Casazza and Veech and the measurement of heparin-releasable triacylglycerol lipases by Gibson, Paterniti and Goldberg. The quality of the chapters is high and this volume would be a useful addition to any laboratory dealing with lipids.

Patricia V. Johnston

Liver and Lipid Metabolism, Proceedings of the Symposium on Liver and Lipid Metabolism, Nov. 17-18, 1983, Modena, Italy, edited by S. Calandra, N. Carulli and G. Salvoli (Elsevier Biomedical Press B.V., PO Box 1527, 1000 BM Amsterdam, The Netherlands, 1984, 217 pp., \$61.50).

These proceedings, sponsored by the Italian Association for the Study of Liver, consist of 21 papers varying in length from four to 18 pages. The thoroughness with which each topic is described therefore varies considerably. The volume begins with an overview of the regulation of cholesterol and LDL metabolism in man and other species by Dietschy. Other major chapters include accounts of hepatic synthesis of plasma lipoproteins in experimental hypothyroidism; mechanisms for CCL₄-induced liver damage; lipoprotein disorders in liver disease; hyperlipidemia and gallstone disease, an epidemiological survey; biliary lipid secretion; hepatic synthesis of bile acids; regulation of cholesterol absorption in humans; and micelles and other lipidic particles in bile and upper small intestine. This book is of interest to anyone concerned with liver disease, lipoproteins and cholesterol metabolism. The price is excessive for a relatively slim volume.

Patricia V. Johnston
University of Illinois
Urbana, IL 61801

Microcomputers in the Process Industry, by E.R. Robinson (Ellis Horwood Ltd., Market Cross House, Cooper Street, Chichester, West Sussex, PO191EB, England, 1985, 349 pp., \$78.95).

There are four parts to the text: computer fundamentals, instrumentation and interfaces, process applications and case studies. The first, titled fundamentals, covers some computer basics including computer structures, electronics, software and signal processing. The Motorola M6800 microprocessor is used as an example of a microprocessor system and is discussed rather extensively throughout the first four chapters. Brief introductions to the M6800 assembler code, Forth and Basic are provided along with substantial information on signal processing and control. Interfacing instrumentation to the microprocessor is the topic of the next part with chapters devoted to analog, pulse generating and digital instrumentation, plus data transmission. Several industrial controllers and data acquisition systems are described ranging from single loop controllers to distributed networks of complex multiloop multi-computer systems. A short chapter on electrical safety is included as well.

The next section of the text deals with applications, including monitoring and closed loop control. Some of the specific topics are data integrity and acquisition, with a detailed look at pipeline monitoring. The chapters covering on-off, sequence and process control include many excellent examples, such as electrically heated furnaces, batch reactors, sequencing of flowmeters, pH control, heat exchangers, distillation columns and a catalytic cracker.

There are four chapters covering case studies. The first, control of a pilot-scale batch distillation column, covers nearly every aspect of the operation, including control requirements, design at all levels, interface and instrumentation, computer selection and software development. The three other case studies are a) temperature control of a chemical reactor, b) the requirements for a liquefied petroleum gas storage depot, which requires a large data acquisition system and c) an electronic system for a flowmeter prover.

The text is strongly applications- rather than theory-oriented. Although the examples and case studies are derived from engineering problems in the petroleum industry, the text would be a good reference for individuals in the food oil industry and readers of *JAOCS* interested in using microcomputers for on-line process control and data acquisition.

William E. Artz
University of Illinois
Urbana, IL 61801

Milkfat and Its Modification, Contributions at a Lipid Forum Symposium, edited by R. Marcuse (Scandinavian Forum for Lipid Research and Technology, c/o SIK, Box 5401, S-402-29, Göteborg, Sweden, 179 pp., 1985, SEK 175, US \$20).

The book is a paperback containing a preface, 20 brief papers and a list of authors. Presentations are made on the composition and physical properties of milkfat, effects of feeding on these aspects and modified milkfats. Some of these are only a few pages in length containing

Publications

the equivalent amount of information. In most of the papers, emphasis is on Scandinavian experience. An excellent paper by Mogensen on Technological and Quality Aspects of Milk Fat Modification is included. Timmen, Frede and Precht discuss Characterization of Short and Long Chain Butterfat Fractions Obtained With Supercritical Carbon Dioxide, another area of potential value. The specialized area covered in this book and the shortness of most of the papers will limit its value to those food scientists investigating modification of milkfat. The general reader of *JAOCS* will not find much of interest.

Robert G. Jensen
Professor, Nutritional Sciences
University of Connecticut
Storrs, CT 06268

New Publications

Trading Rules 1985-86, National Cottonseed Products Association, NCPA, PO Box 12023, Memphis, TN 38182-0023, 1985, 248 pp., \$10.

A Guidebook to Lipoprotein Technique, by G.L. Mills, Patricia A. Lane and P.K. Weech, Laboratory Techniques in Biochemistry and Molecular Biology, Vol. 14, Elsevier Biomedical Press B.V., PO Box 1527, 1000 BM, Amsterdam, The Netherlands, 1984, 512 pp., US \$30.75, Dfl. 80, paperback; hardcover, US \$96.25, Dfl. 250.

From John Wiley & Sons Inc., 605 Third Ave., New York, NY 10158:

Surface Coatings: Science and Technology, by Swaraj Paul, 1985, 741 pp., \$79.95.

Microcomputers in the Process Industry, by E.R. Robinson, 1985, 349 pp., \$78.95.

Principles and Practice of Automatic Process Control, by Carlos A. Smith and Armando B. Corripio, 1985, 614 pp., \$43.95.

Progress in Colloid and Polymer Science, Vol. 70: Surfactants, Adsorption, Surface Spectroscopy and Disperse Systems, edited by B. Lindman, G. Olofsson

and P. Stenius, Steinkopff Verlag, PO Box 111008, Darmstadt, West Germany, 1985, 128 pp., hardcover, DM 94, US \$36. Also available from Springer-Verlag, 175 Fifth Ave., New York, NY 10010.

Comunicaciones presented at the XVI Jornadas del Comite Espanol de la Detergencia, Asociacion de Investigacion de Detergentes, Tensioactivos y Afines, c/o Jorge Girona Salgado, 18-26, 08034 - Barcelona, Spain, 1985, 544 pp., partly English, partly Spanish. For price and orders, write to the Barcelona address.

Electrical Phenomena at Interfaces: Fundamentals, Measurements and Applications, Surfactants Science Series, Vol. 15, edited by Ayao Kitahara and Akira Wantanabe, Marcel Dekker Inc., 270 Madison Ave., New York, NY 10016, 1984, 463 pp., \$79.50 US and Canada, \$95.25 elsewhere.

Supplements to the 2nd Edition, Rodd's Chemistry of Carbon Compounds, Vol. IV, Heterocyclic Compounds, Part B, edited by M.F. Ansell, Elsevier Science Publishers B.V., PO Box 330, 1000 AH, Amsterdam, The Netherlands, and Elsevier Science Publishing Co., PO Box 1663, Grand Central Station, New York, NY 10163, 1985, 318 pp., US \$98.25, Dfl. 265.

Produce Handling, Packaging and Distribution, by Kalman Peleg, Avi Publishing Co., PO Box 831, Westport, CT 06881, 1985, 625 pp., \$135.

1985 Suspect Chemicals Sourcebook, Roytech Publications, prepared with the cooperation of the Synthetic Organic Chemical Manufacturers Association, distributed by International Regulations Organization (INTEREG), 4000 W. Victoria Ave., Chicago, IL 60646, 1985, 307 pp., \$99.95.

From Alan R. Liss Inc., 41 E. 11th St., New York, NY 10003:

Interphotoreceptor Matrix in Health and Disease, edited by C. David Bridges and Alice J. Adler, 1985, 300 pp., \$48.

Modification of Proteins During Aging, edited by Richard C. Adelman and Eugene E. Dekker, 1985, 134 pp., \$32.

Review of Biological Research in Aging, Vol. 2, edited by Morton Rothstein, 1985, 572 pp., \$96.

Available
from **AOCS - Handbook**
\$20 of Soy Oil Processing
and Utilization

Order from AOCS,
508 South Sixth Street,
Champaign, IL 61820.