
Publications

Book reviews

Diet and Resistance to Disease, edited by Marshall Phillips and Albert Baetz (Plenum Press, 1981, 230 pp., \$32.50).

The book is a survey of current investigations examining the influence of nutrition on immune response and resistance to disease. The contributing authors discuss the effect of nutrient deficiency on the immune response as well as the effect of supplementary nutrients on the optimization of immune defense and resistance to disease.

The specific nutrients covered include vitamins C, E and B₁₂, folate, methionine, choline, pyridoxine, pantothenate, selenium, zinc, copper, iron and protein-calories. These nutrients are reviewed with regard to their metabolic function in cellular and humoral immunity. Most of the authors discuss the methods used to test nutrient influence on immunological response *in vitro* or *in vivo* and some review the various agents used to evaluate animal resistance to disease. The most valuable discussions relate the impact of specific diet-related changes in immune response to the animal's ability to resist disease.

The book is intended for an audience with previous knowledge of nutritional biochemistry and familiarity with fundamental concepts of immunology. It is a timely book offering researchers a concise, comprehensive view of specific topics in the growing area of nutritional immunology. It can be recommended to those interested in this area of nutrition research as a second source of up-to-date background information.

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Aliphatic and Related Natural Product Chemistry, Vol. 12, F.D. Gunstone, sr. reporter (Royal Society of Chemistry, Burlington House, London, W1V OBN, 1981, 265 pp., \$104).

This is a specialist periodical report covering the literature published during 1978-79. The seven chapters include: "Natural Acetylenic and Olefinic Compounds Excluding Marine Natural Products," "Acyclic Terpenoids," "Insect Pheromones and Related Behavior-Modifying Chemicals," "Olefin Microbial Metabolites Including Macrocyclic Compounds," "Prostaglandins," "Fatty Acids and Glycerides," and "Polar Lipids." Structural formulae and reaction pathways are liberally used. The average 4-6 references cited per page thus tend to be largely covered in a space of between one sentence and a three-sentence paragraph. Coverage is encyclopedic and the chapters are closely written. Emphasis appears to be on occurrence and synthesis, but biochemical reactions and analytical methodology also appear.

This is not light reading but is a readable reference volume. Specific topics are easily and rapidly located and the relevant literature is very succinctly presented. Approximately one-half of the volume is clearly of interest to lipid chemists. The price of approximately 8.5 cents/reference does, however, seem rather high.

Pesticide Analytical Methodology—ACS Symposium Series, Vol. 136, edited by J. Harvey, Jr., and G. Zweig (American Chemical Society, Washington, DC, 1980, 406 pp., \$38).

This volume is based on a symposium jointly sponsored by the division of Pesticide Chemistry and Analytical Chemistry in September 1979. The first 125 pages are basically a rather elementary introduction to HPLC including column performance, mobile phase modifiers, detectors and pre- and postcolumn derivatization. The authors then move on to quantitative TLC and HPTLC and forensic chemistry. This is followed by discussions of clean-up procedures and derivatization. Final chapters include Fourier transform infrared spectroscopy, immunochemical techniques, negative ion mass spectrometry, and organotin pesticides.

In general, the chapters are written by experts in their fields and come across quite well if one perseveres past the first half of the book. The discussion of basic chromatographic techniques may have been pitched at an appropriate level for a 1979 symposium. Rapid developments in these areas, however, have greatly upgraded the knowledge level of most potential readers.

Pesticide residues inevitably have the potential for inclusion in human foodstuffs and animal feeds. The lipid chemist involved in the food industry must be aware of the methodology applicable to detection of these residues. This volume can be recommended either as an elementary text on techniques or as a general reference on a limited group of analytical procedures.

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New books

Summary of Trade and Tariff Information: Fatty Acids of Animal or Vegetable Origin, published by U.S. International Trade Commission, USITC Publication 841, Washington, DC 20436, 56 pp., 1981. Single copies available free from: Fatty Acids, AOCS, 508 S. Sixth St., Champaign, IL 61820.

1981 International Bio-Energy Directory, published by The Bio-Energy Council, 1625 Eye St., NW, Washington, DC 20006, 1981, 1200 pp., \$90.

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AOCS Monograph 8

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Perfumery Technology, by F.V. Wells and M. Billot, Ellis Horwood Ltd., Market Cross House, Cooper St., Chichester, West Sussex, PO19 1EB, England, 1981, 449 pp., \$110.

The Biology of Cholesterol and Related Steroids, by N.B. Myant, DM, FRCP, William Heinemann Medical Books Ltd., London, 1981, 910 pp., £45.

AOF Oilseeds '81, Outlook, Technical and Trading Standards, and Statistics of the Oilseed Industry, published by the Australian Oilseeds Federation, 9th Flr., 5 Gresham St., Sydney, NSW, Australia, \$12.50 (Australian).

John Wiley & Sons Inc., 605 Third Ave., New York, NY 10158, has announced plans to begin publishing **Mass Spectrometry Reviews**. The first issue is scheduled for spring 1982; the journal will publish reviews on mass spectrometry research.

Latest in *Lipids*

Scheduled for the October issue:

- ω - and (ω - 1)-Hydroxylation of 1-Dodecanol by Frog Liver Microsomes
- Ceramide Structure of Sphingomyelin from Human Milk Fat Globule Membrane
- Aqueous Lipid Phases of Relevance to Intestinal Fat Digestion and Absorption
- Metabolic Discrimination between Cholesterol and β -Amyrin by *Phytophthora cactorum*
- Effects of Clofibrate and Tiadenol on the Elimination of Lipids and Bile Acids in Rat Bile
- Fatty Acid and Cholesterol Synthesis from Specifically Labeled Leucine by Isolated Rat Hepatocytes
- Metabolism of Fatty Acids in Rat Brain Microsomal Membranes
- Lysophosphatidylcholine Acyltransferase Activity during Experimental Cholelithiasis

Communications

- A 2-Phase Liquid Scintillation Assay for Glycolipid Synthetases
- Desaturation of Endogenous and Exogenous Palmitate in Lung Tissue in vitro

Methods

- Synthesis of $\Delta^{5,22}$ -Cholestadien-3 β -ol from $\Delta^{5,7,22}$ -Cholestatrien-3 β -ol by a Liver Enzyme
- Occurrence of 3-Keto Triterpenes in the Unsaponifiable Matter of Sal (*Shorea robusta*) Seed Fat
- A Nondestructive Spray Reagent for the Detection of Prostaglandins and Other Lipids on Thin Layer Chromatograms
- High Pressure Liquid Chromatographic Separation of Molecular Species of Phosphatidic Acid Dimethyl Esters Derived from Phosphatidylcholine
- Zinc Deficiency Increases the Rate of Δ^6 Desaturation of Linoleic Acid in Rat Mammary Tissue
- On the Occurrence of α -Tocopherolquinone in Rat Tissues