

Publications

Book Reviews

Liposome Technology, Vol. I, Preparation of Liposomes; Vol. II, Incorporation of Drugs, Proteins and Genetic Materials; Vol. III, Targeted Drugs Delivery at Biological Interaction (CRC Press, Inc., Boca Raton, FL, 1984, pp. 268, 231, 292, \$83.00, \$64.00, \$83.00 Domestic, \$95.00, \$74.00, \$95.00 Foreign).

For those not familiar with the field, liposomes may be described principally as phospholipid packages for water soluble materials, which it is hoped will permit targeted delivery and slow sustained release of these materials within appropriate areas or tissues of the body. In roughly 800 pages, this 3-volume set gathers together an enormous amount of data on liposomes. The volume subtitles describe the contents, and each area is covered in appropriate detail. The latest Oak Ridge Conference on Advanced Analytical Concepts focused on Immunodiagnostics and paid serious attention to the use of liposomes in this area. There are several liposome-based diagnostic products on the market, and interest continues to be high. Evidence of maturity and practicality also are appearing. Several rather interesting comments appear in these volumes. The suggestion is made that, considering the historical problems with lipids in parenteral nutrition, it may be desirable to use entirely synthetic phospholipids in liposomes. Volume 3, as noted above, contains the phrase "Targeted Drug Delivery" in the subtitle. One author seems to suggest that maybe it is time

to be realistic about the body's preferred distribution patterns. There are locations where liposomes are concentrated naturally, and perhaps attention should be focused on capitalizing on this distribution rather than fighting it.

The chapters are authoritatively written, and the volumes well organized. The subject matter should be of interest to most lipid biochemists. Division into three individually high-priced volumes results in a total price that will relegate these books to library, rather than personal acquisition.

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Hydrogenation of Fats and Oils, by H.B.W. Patterson (Applied Science Publishers Ltd., Ripple Road, Barking, Essex, England; distributed by Elsevier Science Publishing Co., Inc., 52 Vanderbilt Ave., New York, NY 10017; 1983, 310 pp., 296 references, 49 tables, 23 illustrations, \$70.50 U.S.)

This book covers hydrogenation reactions, specific process techniques, plant design and layout, hydrogen sources and quality, catalyst types and handling, hydrogenation methods for various oils, and safety precautions. Definitions of typical hydrogenation terms and specifications for product quality control are broadly covered.

Hydrogenation of Fats and Oils complements the hydrogenation section of *Bailey's Industrial Oil and Fat Products*,

Heavy Duty Hot Block Electric Heat Exchangers



Block heaters may be made with cast in alloy heat transfer surface, and removable electric cartridge heating elements.

This arrangement allows extremely uniform heating, economical construction (since the corrosion resistant part is so small), as well as ability to withstand high process pressures, since the process fluid is within the tubular heat transfer surface.

Thyristor control gives precise regulation of desired temperatures. Heating elements can be changed without disturbing the process side.

Many years background in the design and fabrication of process heat transfer equipment to exacting specifications of international designers and process firms.

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Publications

Vol. 2, 4th edn., edited by Daniel Swern (90 pages, 140 references). It is an easy reading treatise on the hydrogenation of fats and oils, with a small section devoted to fatty acids and soaps. This book would be useful as an academic text book and comprehensive enough to guide a processor in process techniques and quality control. The bibliography is quite extensive and includes recent publications. Titles of the cited references, included in the bibliography, are helpful to the reader.

I recommend the book as a worthwhile addition to one's technical library or as a desk reference book.

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edited by Mendel Friedman, Plenum Press, 233 Spring St., New York, NY 10013, 1984, 584 pp., \$79.50.

Industrial Fire Hazards Handbook, 2nd ed., (includes new chapters on Plant Emergency Organization and Training and Food Processing), National Fire Protection Association (NFPA), Batterymarch Park, Quincy, MA 02269, 1984, 1,100 pp., \$44.00.

1985 ASTM Publications Catalog, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103, 1984, free.

Monte Carlo Methods in Quantum Problems, edited by Malvin H. Kalos, D. Reidel Publishing Company, 190 Old Derby St., Hingham, MA 02032, 1984, 291 pp., \$43.00.

Proceedings of AOCS Short Course on Fatty Acids, copies of the 24 papers presented at the AOCS short course on industrial fatty acids held Sept. 23-26, 1984, at King's Island, Ohio. \$50 set; if air mail delivery preferred, please state and you will be billed the cost of air mail postage; payment must accompany orders, approximately 50 sets available.

New Publications

Nutritional and Toxicological Aspects of Food Safety, Vol. 177 of *Advances in Experimental Medicine and Biology*,

Comprehensive New Volume—AOCS Monograph 10

Dietary Fats and Health

Edited by E. G. Perkins & W. J. Visek

This new AOCS monograph is the proceedings of a conference held in Chicago in December 1981. Containing 60 chapters by leading scientists in biochemistry and nutrition, the book presents the latest scientific information in fat chemistry and technology related to nutrition. Specifically, it covers the general role of fats in nutrition, metabolism of isomeric fats, and the role of vitamins A, D, E and K in health and disease. *Included are controversial topics such as the role of lipids in heart disease and cancer, and the effects of diet on high density lipoproteins and the techniques of lipoprotein fractionation.* The book also contains information devoted to emerging research on dietary fats and nutrition in such areas as multiple sclerosis and the immune response. Numerous illustrations and references are found throughout.

Subjects include:

Chemistry and Technology of Fats
New Methodology in Fat Analysis
Nutritional Effects of Fats, and Metabolism

Essential fatty acids
Pre- and post-natal development
Isomeric fats

Vitamins A,D,K,
Immune response
Heart Disease

Epidemiology
Diet

Lipoproteins
structure
effects of diet on
fractionation
lipoprotein lipase
diet and cholesterol
relation to cancer

Cancer and Lipids

Epidemiological
Dietary fat
Breast cancer
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Antioxidants

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