
Publications

Book reviews

Handbook of Analytical Derivatization Reactions, by D.R. Knapp (John Wiley and Sons, New York, NY, 1979, 741 pp., \$34.95).

The derivatization reactions described are stated as being used to facilitate GLC or HPLC separations or to aid in structure determination by mass spectrometry. Organization is partially by functional group: hydroxyl, sulfhydryl and epoxy; amines, carboxylic acids, aldehydes and ketones; nitrogen functional groups other than amines; phospho and sulfo groups; and partially by compound type; amino acids and peptides; fatty lipids; steroids; prostaglandins; carbohydrates; nucleotides and drugs. The chapter on unsaturated, cyclopropane and methyl-branched fatty acids is concerned with derivatives for substituent location by mass spectrometry. Another chapter is concerned with derivatives suitable for the chromatographic resolution of optical isomers of various types of compounds. Relatively little general information is provided. The book is essentially a series of rather specific examples each approximately one-half page long with the general format: compound type, reagent, reaction, typical procedure, comments and references. The extreme brevity in the description of derivative preparation is partially compensated for by the informative comments. These comments are very short summaries of selected pertinent analytical points in the references cited, such as relative detector response of several possible derivatives, derivatives which were not satisfactory or derivative stability. Although the derivatives are described as being prepared for GLC or HPLC analysis, the author never mentions the type of column packing used. None of the information provided is therefore directly usable without access to the original literature.

This reviewer somewhat prefers the organizational style used in *Handbook of Derivatives for Chromatography*, by K. Blau and G. King (Heyden & Son Ltd., 1977). These authors focused on specific reactions such as esterification, acylation or alkylation and presented large amounts of general, useful information but comparatively few specific examples. Ideally the chromatographer should have both books available since the hundreds of specific examples in Knapp's book complement the more general information in the book by Blau and King. Considering the almost total lack of a useful text in this subject area for such a long period (Pierce's *Silylation of Organic Compounds* was published in 1968) it is pleasant to have not one but two excellent books available on derivatives for chromatography. The only regret is that Knapp has systematically excluded in each case the one piece of information needed to take the handbook from the library into the laboratory.

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New publications

A.O.F. Oilseeds '80, annual yearbook of Australian Oilseeds Federation, ca. 325 pp., \$10.50 Australian currency, order from the Secretary, Australian Oilseeds Federation, Suite 1205, 68 Pitts St., Sydney N.S.W., Australia 2000. Standing orders accepted. Includes sections on international outlook for 1980, Australian industry, review of 1970s, technical standards, commodity training, industry statistics with extensive graphs, tables and charts.

Loss Prevention, from sessions of the 86th National Meeting of the American Institute of Chemical Engineers, 1980, 179 pp., \$12.00 members, \$26.00 nonmembers, AIChE, 345 E. 47 St., New York, NY 10017.

Handbook of Thermal Insulation Design Economics for Pipes and Equipment, by William C. Turner and John F. Malloy, 1980, 368 pp., \$55.00, McGraw-Hill Book Co., 1221 Avenue of the Americas, New York, NY 10020.

Pneumatic Conveying of Bulk Materials, by Milton N. Kraus and the staff of *Chemical Engineering*, 1980, 340 pp., \$24.50, McGraw-Hill Book Co., 1221 Avenue of the Americas, New York, NY 10020.

Process Technology and Flowsheets, by *Chemical Engineering*, 1980, 350 pp., \$24.95, McGraw-Hill Book Co., 1221 Avenue of the Americas, New York, NY 10020.

Free Radicals in Biology, Vol. 4, edited by W.A. Pryor, 1980, 348 pp., \$46.00, Academic Press, Inc., 111 Fifth Ave., New York, NY 10003.

Gel Chromatography: Theory, Methodology, Applications, by Tibor Kremmer and Laszlo Boross, 1979, 299 pp., \$45.00, John Wiley & Sons, Inc., One Wiley Dr., Somerset, NJ 08873.

Computers and Instrumentation: A Practical Handbook of Measurement, Interfacing and Control Circuits, by A. Carrick, 1980, 327 pp., \$19.50, Heyden & Sons, Inc., 247 S. 41st St., Philadelphia, PA 19104.

Separation Techniques 1: Liquid-Liquid Systems, edited by *Chemical Engineering*, 1980, 384 pp., \$19.50, soft cover, McGraw-Hill/Chemical Engineering, 1221 Avenue of the Americas, New York, NY 10020.

Controlling Corrosion in Process Equipment, edited by *Chemical Engineering*, 1980, 288 pp., \$19.50, soft cover, McGraw Hill/Chemical Engineering, 1221 Avenue of the Americas, New York, NY 10020. □

Lipids

JUNE 1980

Cyclopropene Fatty Acids in Some Malaysian Edible Seeds and Nuts: I. Durian (*Durio zibethinus*, Murr.)

Characterization of Triterpene Alcohols of Seed Oils from Some Species of Theaceae, Phytotaccaceae and Sapotacene

Effect of Diet on Choline Phosphotransferase, Phosphatidylethanolamine Methyltransferase and Phosphatidyldimethylethanolamine Methyltransferase in Liver Microsomes

Effect of Cholestipol on Sterol Metabolism in the Rat Changes in Host Animal Plasma Lipids during Hepatoma Growth

Effect of Plant Sterols, Fatty Acids and Lecithin on Cholesterol Absorption in vivo in the Rat

The Metabolism of Polyunsaturated Fatty Acids in Rat Sertoli and Germinal Cells

Utilization of Polyunsaturated Fatty Acids by Human Diploid Cells Aging in vitro

Distribution of Phosphatidate Phosphohydrolase Activity in the Lamellar Body and Lysosomal Fractions

Regulation of Lung Surfactant Cholesterol Metabolism by Serum Lipoproteins

Lecithin Influence on Hyperlipemia in Rhesus Monkeys
Abnormal Suppression of 3-Hydroxy-3-Methylglutaryl-CoA Reductase Activity in Cultured Human Fibroblasts by Hypertriglyceridemic Very Low Density Lipoprotein Subclasses

Communications

The Structure of Plasma Low Density Lipoproteins: Experimental Facts and Interpretations—A Minireview

Formation of 12-[¹⁸O]-*cis*-10, *cis*-15 Phytodienoic Acid from 13-[¹⁸O] Hydroperoxylinolenic Acid by Hydroperoxide Cyclase

15-Hydroperoxy-Eicosatetraenoic Acid Inhibits Human Platelet Aggregation

Alkenyl and Alkyl Ether Phospholipids in Pig Mesenteric Lymph Node Lymphocytes

Methods

Synthesis of α -Hydroxy Stearyl Coenzyme A

The Removal of Peroxides from Phosphatidylcholine Preparations

Review

Lipid Oxidation, Biologic Effects and Antioxidants—A Review

TANK HEATERS FOR PALM OIL



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