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# Publications

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## Book reviews

**Food, Ecology and Cultures: Readings in the Anthropology of Dietary Practices**, edited by J.R.K. Robson (Gordon & Breach Science Publishers, New York, NY, 143 pp., \$27.50).

This book contains a collection of papers selected from the journal *Ecology of Food and Nutrition*. There are 14 sections, each of which contains many excellent references. These sections provide information on the dietary habits of man in various stages of development. Primitive man apparently was omnivorous, eating hundreds of different foods. However, the advent of agriculture and industrialization has led to contemporary diets that consist of fewer and fewer kinds of foods each year.

Discrepancies often have been observed in the estimated nutritional requirements of groups of primitive people and the availability of nutrients as estimated by measurements of dietary intake data. The first few chapters discuss some of the problems associated with the collection of data and some of the inherent errors associated with these types of measurement. It is notable that judgments of the adequacy of diets invariably depend on a comparison with estimates of requirements. Requirements for one population may not always be the same for another population. Some populations, however, do provide an excellent opportunity to determine the lower levels of nutrient intake.

Examinations of aboriginal populations were used in this book to estimate lower nutrient intakes. Considerable emphasis also has been given to the beliefs of various populations, many of which have originated from attempts to maintain adequate nutrient intake for themselves or their children. One interesting section within this book deals with some of the sexual taboos that are observed. These taboos possibly were maintained as a method to insure adequate nutrition for the children.

This book reviews many areas of the world as sources of information for a better understanding of man's nutrient requirements, for the significance of changes in food habits and for the potential for identifying forgotten food resources. Areas within the Philippines, New Guinea, South Africa and New Zealand were examined to supply this interesting information. Even the Alaskan eskimos were used to estimate some changes in food habits that have occurred.

One excellent section covers an area of folk medicine. It specifically deals with foods that can be characterized as either being hot or cold. This classification does not always refer to the physical temperature of these foods. Unfortunately, some of these traditions may further accentuate problems, especially during diseased states. In contrast, some foods are used medicinally. Clearly, time has given many people some insight into foods that may be of benefit in treating diseased states, yet some misconceptions have been propagated.

One section within this book addresses the question of why certain areas became milk-consuming areas whereas others did not. This chapter discusses lactose tolerance as

being one of many factors that may have led populations to either like or dislike this food source. Clearly, many factors influence milk consumption and lactose tolerance cannot be the only explanation. It is interesting to examine the reasons why diets have been modified during the evolution of man.

Some of the avoidances of food are based on some justification. Thus the avoidances have been handed down from generation to generation. The authors must be congratulated for having attempted to find physiological explanations for major avoidances rather than actual nutritional problems associated with the consumption of these foods.

This is an interesting book that contains topics that would be of interest to numerous individuals. While this text would be of considerable value in the library of a nutritionist, it would also be of value to many individuals interested in the customs and philosophy of food consumption. This book would be of value to individuals who would like to become familiar with this area, yet are unable or unwilling to subscribe to this type of journal.

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**Solution Chemistry of Surfactants, Vols. 1 and 2**, edited by K.L. Mittal (Plenum Press, 227 W. 17th St., New York, NY 10011, 1979, 949 pp., Vol. 1—\$45, Vol. 2—\$45).

The symposium on the Solution Chemistry of Surfactants was held as a part of the 52nd Colloid and Surface Science Symposium of the Division of Colloid and Surface Chemistry of the American Chemical Society in Knoxville, Tennessee, June 12-14, 1978. It was an international symposium with 49 papers by 108 contributors from 19 countries. The symposium consisted of review papers by leading authorities as well as original research papers. The explosive growth of interest in the areas of micellar catalysis, photochemical reactions in micellar media, surfactant flooding, and reactions and interactions in microemulsion media was given proper coverage.

Mittal's two volumes document the proceedings of the entire symposium with comprehensive coverage of aggregation phenomena as well as adsorption at interfaces. Electrochemical studies in micellar media and applications of micelles and surfactants in analytical chemistry are included. One disappointment is the absence of discussion sections in these volumes.

The following topics are covered: thermodynamics and kinetics of micellization in aqueous media, aggregation in nonaqueous media, effect of solvent on micellization, aggregation of biological surfactants, mixed micelles, solubilization, micellar catalysis and inhibition, reactions and interactions in micellar media, application of micellar systems in analytical chemistry, microemulsion, very low interfacial tensions, tertiary oil recovery, surfactant flooding, microemulsion flooding, liquid crystals, phase stability, surface rheology, and adsorption at the three types of

interfaces. However, no paper deals specifically with the solution behavior of fatty acids.

These two volumes appear to be indispensable for keeping the research worker in surface chemistry up-to-date with progress in both the theoretical and practical aspects of surface chemistry.

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**Cell Surface Glycolipids, ACS Symposium Series Vol. 128**, edited by C.C. Sweeley (American Chemical Society, Washington, DC, 1980, 504 pp., \$44.50).

The collected papers are described as the proceedings of a symposium sponsored by the Division of Carbohydrate Chemistry of the ACS in Washington, DC, in September 1979. Sweeley was also involved with a similar symposium in Honolulu, Hawaii in October 1977 held under the auspices of the Japan-United States Science Exchange Program. The present volume is stated to review some of the topics presented at the earlier meeting. The first chapters are concerned with instrumental methodologies, HPLC, MS and high resolution proton NMR. In the MS area, field desorption, electron impact, chemical ionization and selected ion monitoring are considered in detail. The plant glycolipids made famous by H. Carter are revisited with modern techniques by Laine. A number of chapters are concerned with the glycolipids of various tissues, testis, skeletal muscle, neutrophils and glandular epithelium or cultured cells. Glycolipids are of particular interest in cancer cells and transformed cells in culture. The final chapters focus on immunology and immunochemistry of glycolipids.

In recent years, techniques have been developed to extract and work with glycolipids that are probably better described as complex carbohydrates. The ceramides with 14 sugar residues from the erythrocyte ghost start to look simple in comparison to others containing 28 to 36 residues from hog gastric mucosa. Galactosyl diglycerides have been recognized as constituents of mammalian brain and testis for some time. The Slomianys have shown that glucosyl diglycerides are apparently characteristic lipids of mucous secretions such as the gastric secretion, saliva and alveolar lavage. While the glucosyl diglycerides may have longer oligosaccharide chains than the galactosyl diglycerides, the interesting point of comparison is sulfation and the presence of an alkyl, acyl glycerol moiety. Biological interest centers on the simplified glycolipid pattern in transformed cells, blood group activity and immunological reactions. Of particular current interest is the interaction of interferon and glycolipids.

With 27 chapters and 500 pages, this is a comprehensive coverage of major topics relevant to cell surface glycolipids. Although prepared from camera-ready copy, text quality is good but uneven. A 30-page index provides reasonable access. As the AOCS discovered when a volume on glycolipids was included in the monograph series in 1976, this is a specialized field of limited but growing interest. With its cross-disciplinary topics, this volume should be well received.

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## New publications

**Biomass Process Handbook — A Production/Economic Guide to 40 Chemical Processes That Use Biomass As a Raw Material**, Technical Insights Inc., PO Box 1304, Fort Lee, NJ 07024, 1980, 330 pp., \$470.

**Survey on Lipid Science and Technology 1980**, edited by Reinhard Marcuse, published by International Society for Fat Research, c/o Dr. Ragnar Ohlson, AB Karlshamns Oljefabriker, S-292 00 Karlshamn, Sweden, 1980, 136 p., US \$15. Summaries of 29 technical sessions and symposia presented during the 1980 ISF/AOCS World Congress.

**Jojoba**, Vol. 1, compiled and edited by Thomas K. Miwa, published by Jojoba Plantation Products, Inc., 445 S. Figueroa St., Suite 3200, Los Angeles, CA 90071, 320 p., \$12.50 + postage (postage paid if payment accompanies order). Twenty-two articles on various aspects of jojoba, 19 of which are new. Future volumes to follow when enough new material warrants.

**Liquid Crystals**, edited by S. Chandrasekhar, 1980, 605 pp., \$79. Proceedings of the 1979 International Symposium on Liquid Crystals in Bangalore, India. Heyden & Sons Inc., 247 S. 41st St., Philadelphia, PA 19104 USA, or Heyden offices in London or Rheine.

**Advances in Mass Spectrometry, Volume 8**, edited by A. Quayle, 1980, 2 vol., 2,000+ pp., 1980. Proceedings of the 8th International Mass Spectrometry Conference held in Oslo during August 1979, more than 250 papers. Heyden & Sons Inc., 247 S. 41st St., Philadelphia, PA 19104 USA, or Heyden offices in London or Rheine.

**FAO Books in Print**, a catalog of available publications from the U.N. Food and Agricultural Organization, available from UNIPUB, 345 Park Ave. South, New York, NY 10010, or FAO sales agents in other nations.

**Dyes and Pigments, an International Journal (quarterly)**, edited by I.D. Rattee, published by Applied Science Publishers Ltd., Ripple Road, Barkin, Essex IG11 OSA, England. Covers scientific and technical aspects of the chemistry and physics of dyes, pigments and their intermediates. Subscription in UK, £37.50; USA and Canada, £43.10; elsewhere, £47.25. USA, Canada, Japan and Australia subscriptions air-shipped at no extra cost.

**Pesticide Analytical Methodology**, edited by John Harvey, Jr., and Gunter Zweig, 1980, 406 pp., \$38. American Chemical Society, Special Issue Sales, 1155 16th St. NW, Washington, DC 20036 USA.

**Technical Basis for a Size Specific Particulate Standard**, proceedings of an Air Pollution Control Association conference, 1980, 336 pp., \$12 APCA members, \$15 nonmembers, Publication Department, Air Pollution Control Association, PO Box 2861, Pittsburgh, PA 15230 USA.

**Mass Spectrometry, Part B**, edited by Charles Merritt, Jr., and Charles N. McEwen, 1980, 416 pp., \$49.75 in U.S. and Canada, \$59.70 elsewhere; Marcel Dekker Inc., 270 Madison Ave., New York, NY 10016.

**Proceedings of the Fifth International Conference on Zeolites**, edited by L.V.C. Rees, 1980, 902 pp., \$76. Proceedings of conference held during June 1980 in Naples, Italy. Heyden & Son Inc., 247 S. 41st St., Philadelphia, PA 19104 USA, or Heyden offices in London or Rheine.