

Methods development update

Proposed new committee

On March 24, 1986, a meeting of an AOCS ad hoc Industrial Edible Oil Committee was held at the O'Hare Hilton in Chicago. Approximately 15 major oil supplying and oil purchasing companies were represented. The meeting was organized by Ron Sleeter of Archer Daniels Midland Co. (ADM).

The ad hoc committee evolved from a January 20 meeting between ADM personnel and the AOCS technical director, at which time the need for identifying standardized methods required by the edible oil industry was expressed. At the January 20 meeting, the consensus was that the best mechanism for identifying methods needed by industry would be an AOCS advisory committee made up of representatives of the edible oil industry.

At the March 24 meeting, the ad hoc committee formulated its purpose and goals and addressed other topics such as membership, mechanics, financing and international ramifications. It was noted by those present that while the committee's

main goal would be to identify and study methods needed by industry, this activity should in no way duplicate the methods development mechanism already in place; rather, it should complement both the methods development process and technical committee activities. It was suggested that liaison between the ad hoc industrial committee and the Uniform Methods Committee (UMC) could be accomplished by having a member of the industrial committee participate on the UMC as a nonvoting member. Coordination of the activities among the UMC, technical committees and the industrial committee, ensuring that there is no duplication of effort, would occur through the AOCS technical director, who would serve as chairman of the industrial committee.

A list of 22 methods of concern was generated at the ad hoc committee meeting. Of these, seven are currently under evaluation, with four having priority status. The committee identified two additional methods that should have priority status. The committee stressed the

need for a practical and centralized approach to statistical analysis of collaborative studies. The committee agreed to take action on the following projects: initiate a collaborative study to improve the cold test; propose the adoption of the Dropping Point Method in lieu of the Wiley Melting Point; offer technical assistance to the appropriate technical committees for updating the chlorophyll in oils and the automated color in oils methods.

The next committee meeting is planned for either September or November, 1986.

Projections for 1986

Currently, there are 20 methods pending approval for the 1986 Additions and Revisions to AOCS Official Methods and Recommended Practices. Of the 20 methods, 15 are new methods and five are revised versions of older methods. Minor revisions have been proposed for an additional 10 methods.

Dave Berner
AOCS Technical Director

Publications

Book reviews

Handbook of Toxic and Hazardous Chemicals and Carcinogens, 2nd ed., by Marshall Sittig (Noyes Publications, Park Ridge, NJ 07656, 1985, 950 pp., \$96).

Implementation of the OSHA Hazard Communication standard (November 1985) and the requirement therein for training programs (May 1986) has led to a proliferation of new books and new editions of old books on chemical hazards. This particular handbook provides data on nearly 800 compounds.

A primary criterion for selection of compounds for inclusion is citation in certain lists, i.e., EPA priority pollutants, ACGIH TLVs and compounds identified as car-

cinogens by the U.S. National Toxicology Program. While some of these compounds are obviously flammable, explosive or corrosive and this information is carefully documented, the author is particularly concerned with acute and chronic health hazards. With approximately one page of text per compound, there is space for a terse but comprehensive and systematic summary of quite a bit of useful information.

This is clearly one of the better books around on hazardous chemicals. The OSHA standard and various states' right-to-know laws are certain to increase the dissemination of this type of hazardous material information. Frequently the spread of complex technical information to a nontechnical audience is accompanied by some degree of misinterpretation or distortion of

technical accuracy. Sittig's book is an excellent source of accurate information on most of the "bad actors" in the news. A reference copy should be available in every chemical plant and laboratory.

Lloyd A. Witting

Regulatory Chemicals of Health and Environmental Concern, by William H. Lederer (Van Nostrand-Reinhold Co., 135 West 50th St., New York, NY 10020, 1985, 304 pp., \$38.50).

This seems to be another of the new books appearing in response to the OSHA standard and environmental issues in general. Rather than listing detailed information for each chemical, the author has compiled relevant regulatory references for each chemical. The listings follow a

Publications

sequence of 18 possible headings, beginning with OSHA and ACGIH exposure values, passing through carcinogenicity, fire hazard, TSCA, clean water and clean air, and ending up at RCRA.

Fortunately, the author provides the most frequently sought-after tidbits of information rather than only references. Typically one finds things like TLVs, carcinogenicity CAS number, NFPA numerical profile and EPA hazardous waste number tersely listed. With five to 15 entries per page, this is not particularly light reading. The format, however, offers rapid access to a certain amount of information and provides directions to reach more detailed information.

In general, the pace of regulatory activity is so slow that a listing of pertinent references has a relatively reasonable useful life. This is a useful reference work for any site using chemicals.

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Oil Palms on The Amazon and Other Oilseed Plants, by Celestino Pesce, translated by Dennis J. Johnson (Reference Publications Inc., 218 St. Clair River Dr., Box 344, Algonac, MI 48001, 1985, 199 pp., \$24.95).

This book represents the English translation of one of the pioneering scientific works to focus on vegetable oil resources of the great Amazon Basin. The botanical, chemical and ethnobotanical aspects of more than 100 species and varieties of oilseed plants of the Brazilian Amazon, published in 1941 by Celestino Pesce, have been classified into two sections, namely oil palms and other oilseed plants, by the translator.

As a reference book, this translation is recommended for all readers of English seriously interested in expanding their knowledge about Amazonian oil-yielding plants.

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Surfactants, edited by Th. F. Tadros (Academic Press Inc., 111 Fifth Ave., New York, NY 10003, 1984, 432 pp., hardcover, \$30).

This book represents the proceedings of a residential school on surfactants held at Bristol University during 1983. In the vernacular, this book packs a tremendous wallop. In relatively few pages, it provides an excellent overview of surface chemistry. In fact, the book might more appropriately be titled "Surface Chemistry" rather than "Surfactants," since the latter are relatively shortchanged in the last three chapters.

The basic viewpoint is physical and theoretical. The text is taut, without unnecessary verbiage. While this does not make for casual reading, anyone working his or her way through the book and some of the extensive references to the basic literature will have a good—and reasonably complete—grasp of the current state of surface chemistry.

The quality of discussion in individual chapters—Thermodynamics of Surfactant Solutions, Structural Aspects of Surfactant Micellar Systems, Adsorption, Emulsion and Foams, Suspensions, Surfactants in Enhance Oil Recovery, and Some Applications of Surfactants in Biological Systems—is uniformly high. The chapters on Phase Equilibria and Wetting are outstanding.

The book has been edited with care and contains a very small number of errors. Terminology and spelling are British. The nomenclature will strike U.S. readers as unusual in that surfactant names are not separated, leading to terms such as dodecylsulphate.

The chapter on Macromolecular Surfactants provides the only jarring note in this fine volume. Most of it is devoted to a discussion of conventional ethoxylate nonionics. Only a small part deals with the macromolecular surfactants of the title about which one would have liked to read more. Also, the profusion of trade names in this chapter is in unfavorable contrast to the high academic quality of the rest of the book.

In today's high-priced textbook market, this book is a true bargain. It

is highly recommended for the serious student of surface chemistry.

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Membrane Fluidity in Biology, Vol. 3: Disease Processes, edited by Roland C. Aloia and Joan M. Boggs (Academic Press Inc., 6277 Sea Harbor Dr., Orlando, FL 32821, 1985, 316 pp., \$64.50).

This volume focuses on the relationship between membrane lipids and membrane fluidity changes and pathological conditions.

There are six chapters. The first, by Jane H. Chin and Dora B. Goldstein, deals with the effects of alcohols on membrane fluidity and lipid composition, including the chronic effects of ethanol. The second, by Kevin M.W. Keough, discusses lipid fluidity and respiratory distress syndrome. The next two chapters deal with membrane fluidity in normal and malignant lymphoid cells (by W.J. van Blitterswijk) and the relationship of membrane fluidity to degenerative muscular diseases (by Allan Butterfield). Chapter five, by Robert J. Gould and Barry H. Ginsberg, is on membrane fluidity and membrane receptor function. The final chapter, by Ross P. Holmes and Fred A. Kummerow, deals with membrane perturbations in atherosclerosis.

The quality of the chapters is high. They are in-depth, well illustrated and well documented. As is so often the case these days, the price is somewhat high for the private library.

Patricia V. Johnston

Cellular and Molecular Aspects of Aging: The Red Cell as a Model, edited by John W. Eaton, Diane K. Konzen and James G. White (Alan R. Liss Inc., 41 E. 11th St., New York, NY 10003, 1985, 464 pp., \$68).

This 195th volume of the series "Progress in Clinical and Biological Research" is the proceedings of a conference held in Minneapolis, Minnesota, in late 1984. The purpose of the meeting was to explore the usefulness of the erythrocyte as

Publications

a model for certain cellular and molecular aspects of aging.

The volume consists of five sections. The first deals with general aspects of cellular differentiation, maturation and aging and consists of four contributions. Hemoglobin is the subject of the second section and this includes chapters on accumulation of advanced glycosylation end products on proteins and nucleic acids, the role of aspartic acid and asparagine residues in the aging of erythrocyte proteins, nonenzymatic glycosylation of proteins, comparative oxidative damage in red cells and myelin, hemoglobin Köln disease and the role of hemoglobin instability in premature red cell destruction. The third section has eleven contributions on membrane changes in red cell senescence and destruction, and the fourth has five contributions dealing with red cell metabolism. The final section is on comparative aspects of erythrocyte aging. Every chapter throughout the volume is followed by a discussion; some discussions are very brief and others fairly extensive.

The subject of the red cell as a model for aging is intriguing in that the mammalian erythrocyte offers advantages by being very simple and anucleate and by having a finite lifespan. Collectively, the volume provides useful approaches to the exploration of this model in aging studies. It will be of interest to *JAOCs* readers who are involved in any aspect of aging research and to those concerned with membrane biology.

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New newsletter

A new quarterly newsletter, "n-3 News, Unsaturated Fatty Acids and Health," is being published from editorial offices at the Department of Preventive Medicine and Clinical Epidemiology, Harvard Medical School, Massachusetts General Hospital, Boston, MA 02114, USA.

The intent of the newsletter is to maintain communication among

investigators working on aspects of n-3 fatty acid metabolism and its role in human health.

Subscriptions are US \$15, with checks payable to "n-3 News" at the departmental address in the first paragraph.

New books

From the American Association of Cereal Chemists, 3340 Pilot Knob Rd., St. Paul MN 55121:

Principles of Cereal Science and Technology, edited by R. Carl Hoseney, 1986, 330 pp., \$46.95 (\$39.95 AACC members).

Digestibility and Amino Acid Availability in Cereals and Oilseeds, edited by John W. Finley and Daniel T. Hopkins, 1986, 302 pp., \$58 (\$46 AACC members).

Control of Pesticide Applications and Residues in Food. A Guide and Directory, edited by Bengt v Hofsten and George Ekstrom, 1986, Swedish Science Press, PO Box 118, S-75104 Uppsala, Sweden, \$30.

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

Vitamin B-6: Its Role in Health and Disease, proceedings of a conference on Vitamin B-6 Nutrition and Metabolism held at the Banff Conference Centre, Banff, Alberta, Canada, Oct. 8-10, 1984; 1985, 526 pp., \$78.

Nutrition, Aging, and Health (Contemporary Issues in Clinical Nutrition, Vol. 9), edited by Eleanor A. Young, 1985, 292 pp., \$58.

Nutrition and the Skin (Contemporary Issues in Clinical Nutrition, Vol. 10), edited by Daphne A. Roe, 1986, 204 pp., \$39.50.

Dietary Fiber and Obesity (Current Topics in Nutrition and Disease, Vol. 14), proceedings of a satellite symposium to the 2nd Washington Symposium on Dietary Fibers, held in Washington, DC, April 24-28, 1984, edited by Per Bjoerntorp, George V.

Vahouny and David Kritchevsky, 1985, 134 pp., \$22.

From AVI Publishing Co., 250 Post Rd. E., PO Box 831, Westport, CT 06881:

Practical Baking, by William J. Sultan, 1986, 713 pp., \$30.

Food Science, 4th ed., by Norman N. Potter, 1986, 750 pp., \$38 (hardbound).

Ice Cream, by Wendell S. Arbuckle, 1986, 460 pp., \$49.95.

Experiments in Industry, by Ronald D. Snee, Lynne B. Hare and J. Richard Trout, 1985, American Society for Quality Control, 230 W. Wells St., Milwaukee, WI 53203, 142 pp., \$16.95.

Organic Coatings: Science and Technology, Vol. 8, edited by Geoffrey D. Parfit and Angelos V. Patsis, 1986, Marcel Dekker Inc., 270 Madison Ave., New York, NY 10016, 552 pp., \$89.75 US and Canada, \$107.50 elsewhere.

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