Methods development update

The *1986 Additions and Revisions to Methods* are in the final production stage and should be available for distribution about Dec. 15, 1986.

The 1986 additions will include 12 new methods. These include four that are chromatography-related for phospholipids, erucic acid, triglycerides and antioxidants. There are four aflatoxin methods, covering the analysis of aflatoxins in corn, dairy products and the TLC confirmation of aflatoxins B_1 and G_1. The chromatography methods were prepared and submitted by the Chromatography Committee, chaired by John Callahan of Colgate-Palmolive, and the Lecithin and Co-Products Committee, chaired by Bernie Szuhaj of Central Soya. The aflatoxin methods were drafted by the Mycotoxin Committee, chaired by Art Waltking of Best Foods. A rapid method for the estimation of phospholipids in vegetable oils, based on nephelometry, has been adopted as a Recommended Practice. This method, developed and submitted by Roger Sinram of A.E. Staley, should be useful in the quality control of vegetable oil processing.

There are 16 revised methods for 1986. For six methods, the revisions are minor, including such things as new addresses for suppliers and numerical corrections. To 10 methods (including iodine value, peroxide value, glycerol and monoglycerides) requiring the use of toxic solvents (chloroform and carbon tetrachloride), recommendations were added for the use of alternate solvents. It is noted in these methods that the recommendations are not official because they have not been studied collaboratively within AOCS. The recommendations are based on reported, successful experience at laboratories using the alternate solvents in these methods.

Future considerations

The format of the *AOCS Official Book of Methods and Recommended Practices* is under review. The review will include both the manner in which the methods are written and the form in which they would be distributed (bound volume, current binder style, etc.). Suggestions for the new format are under consideration. Anyone wishing to contribute ideas about the format should submit them to the AOCS Technical Director. When the new format is adopted, it will be used for the fourth edition of the methods book. A projected date for printing the fourth edition is 1989. The critical factor controlling the printing of the fourth edition is the completion of the update and revision of the 340 existing official methods and recommended practices.

As a means of improving the methods review process, it has been proposed that "Associate Methods Editors" be appointed for each section of AOCS methods. It would be the task of the Associate Methods Editors to review (with the help of a committee and industrial surveys) the various sections in Methods and make recommendations for new, revised and surplus methodology. The required action would be taken by technical committees.

Dave Berner
AOCS Technical Director

Book review

Analysis of Oils and Fats, edited by R.J. Hamilton and J.B. Rossell (Elsevier Scientific Publishing Co., 52 Vanderbilt Ave., New York, NY 10017, 1986, 441 pp., $86).

This book tends to emphasize the methods endorsed by the Federation of Oils, Seeds & Fats Association Ltd. (FOSFA) for international trade in these commodities. The book is composed of contributions in the following areas: classical analysis of oils and fats; national and international standardization of analytical methods; packed column gas chromatography; WCOT (capillary) gas liquid chromatography; GC-MS of triglycerides; TLC and HPLC; positional distribution of fatty acids in triglycerides; applications of wide-line NMR in the oils and fats industry; and high resolution NMR.

Several chapters lack in-depth coverage of the intended material. The chapters on packed column chromatography and mass spectrometry are two such examples. Greater depth would have made the volume more useful to the practicing analyst. The excellent chapter reviewing capillary gas chromatography is written in sufficient depth to assure fairly complete coverage of the lipids area. In general, the volume is a good overview of the methods that it addresses, and can be recommended for this type of reading. The index is adequate and easy to read.

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New books

Handbook of Aqueous Electrolyte Thermodynamics, by the Design Institute for Physical Property Data, American Institute of Chemical Engineers, 345 East 47th St., New York, NY 10017, 1986, 852 pp., $45 for DIPPR sponsors, $65 for members of AIChE, $90 all others.

Publications

Basic Tables for Chemical Analysis, National Bureau of Standards, Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Price is $11; order by stock number 003-003-02724-3. Tables include carrier gas properties, solvents for liquid chromatography, infrared optics materials and characteristics absorptions.

Thin-Layer Chromatography: Techniques and Applications, 2nd ed., revised and expanded, (Chromatographic Science Series, Vol. 35), by Bernard Fried and Joseph Sherma, Marcel Dekker Inc., 270 Madison Ave., New York, NY 10016, 1986, 416 pp., $74.75 US and Canada, $89.50 all others.

Encyclopedia of Food Engineering, 2nd ed., by Carl W. Hall, Arthur W. Farrall and A.L. Rippen, AVI Publishing Co., 250 Post Rd. E., PO Box 831, Westport, CT 06881, 1986, 882 pp., $135.

Applied Food Science Laboratory Manual, by D.B. Ott, Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, 1986, 175 pp., $15.

Oats Chemistry and Technology, edited by Francis H. Webster, American Association of Cereal Chemists Inc., 3340 Pilot Knob Rd., St. Paul, MN 55121, 1986, 433 pp., $79 US and Canada, add 10% for shipping elsewhere.

Proceedings, 19th Annual Convention, Canola Council of Canada, Canola Council of Canada, Attn. Dale Adolph, Market Development Coordinator, 301-433 Main St., Winnipeg, Canada R3B 1B3, proceedings of the March 1986 meeting in San Francisco, Canada, 215 pp.

Other publications

Coconuts Today, Vol. 3, No. 2, United Coconut Association of the Philippines Inc., 941 Josefa Llanes Escoda St., Manila, The Philippines, 1986, 160 pp.

Proteins: Structure, Function, and Genetics, edited by Cyrus Levinthal, Alan R. Liss Inc., 41 E. 11th St., New York, NY 10003. A new monthly journal, first issue published in September 1986, $255 a year in the US, $264 elsewhere.

A Review of U.S. Competitiveness in Agricultural Trade, technical memorandum prepared by the U.S. congressional Office of Technology Assessment. Copies available for $5.50 from the U.S. Government Printing Office, Superintendent of Documents, Washington, D.C. 20402, stock number 052-003-01054-2.

New Products

STOPWATCH

Fisher Scientific offers a stopwatch with microprocessor control capable of providing researchers with a printout of sample numbers and cumulative and interval times. The timer is designed for accuracy to 0.001%, with a rollover capacity of almost 10 hours for long experiments. Contact: Fisher Scientific, 711 Forbes Ave., Pittsburgh, PA 15219.

WAVELENGTH DETECTOR

The SM4000 programmable wavelength detector by LDC/Milton Roy is designed to measure time-programmed wavelength changes, monitor simultaneous dual wavelength and scan stop flow. It interfaces with computers and other data devices for HPLC systems and features detection from 190 to 700 nm with sensitivity to 0.0005 AUFS. Contact: LDC/Milton Roy, PO Box 10235, Riviera Beach, FL 33404.

PULSATION DAMPENERS

ACL Technologies Inc. has available pulsation dampeners rated at 5,000 psi, with flow ranges up to 105 gpm. Ripple Filters dampen fluid pressure pulsations from 10-10,000 Hz. They are available for both axial and reciprocating pumps. Contact: ACL Technologies, Systems and Controls, 1505 E. Warner Ave., Santa Ana, CA 92705.

PHOTODIODE DETECTOR

Waters Chromatography Division introduces the Waters 990 photodiode detector, designed to continuously monitor and acquire UV/Vis wavelengths in an HPLC analysis. Features include peak integration on up to six channels, overlay capabilities, peak normalization and display of up to 24 absorbance traces on one screen. Included with the detector is an NEC APC III personal computer (IBM-compatible) and a software package. Contact: Waters Chromatography Division, 34 Maple St., Milford, MA 01757.

LIQUID CHROMATOGRAPH

The LC/9560 ternary gradient HPLC is available from IBM Instruments Inc. Features include LED display, automatic start-up diagnostics, front-accessible electronics and hydraulics and switch-selectable, dual-flow ranges. With the addition of accessories, the LC/9560 can be expanded into a fully automated chemical separation work station. Contact: IBM