

Meetings

fats, biochemistry, nutrition and clinical aspects of lipids, industrial and edible fats and oils, chemistry of oils and fats and their derivatives, surfactants and surface chemistry, analysis of lipids, biotechnology, vegetable protein and miscellaneous areas including marine oil.

Those wishing to present a paper have until Feb. 29, 1988, to submit the proposed title of the talk, along with author's name, affiliation, address and telephone/telex number. Photo-ready abstracts must be submitted by June 20, 1988.

For more information, contact ISF-JOCS World Congress 1988, Secretariat, The Japan Oil Chemists' Society, 7th Floor, Yushi Kogyo

Kaikan, 13-11, Nihombashi 3-chome, Chuo-ku, Tokyo 103, Japan.

Separation symposium

Scientific and economic aspects of the role played by separation principles in biotechnology will be examined at the 4th Separation Science and Biotechnology Symposium, presented by the Department of Biomedical Sciences and Technologies of the University of Milano Aug. 31-Sept. 3, 1988, at the Palazzo Feltrinelli, Gargnano del Garda, Italy.

In addition to analytical and preparative chromatographic techniques, other approaches such as sedimentation field flow fractionation, capillary to preparative gel electrophoresis and other biomacromolecular and particle separation techniques will be reviewed. Recent advances in applying separation science and engineering to biotechnological processes also will be highlighted as well as the economics of bioprocessing.

For information, contact Pier Giorgio Righetti, professor of biochemistry and symposium chairman, at Euro Business Center, PO Box 10552, 11001 EN Amsterdam, the Netherlands.

Inside AOCS

Canadian Section holds annual meeting

The second annual meeting of the Canadian Section of AOCS was held at the University of Manitoba in Winnipeg Oct. 7 and 8, 1987. The 80 participants came from as far away as Nova Scotia, Illinois, Indiana and Iowa.

The meeting featured symposia on wide-ranging topics, including nutrition and biochemistry, breeding and biotechnology, processing and utilization, and analysis and composition. A poster session was held in conjunction with the cocktail hour at the Wednesday night banquet.

AOCS President Robert Hastert, opening the conference, gave an overview of AOCS activities and presented slides showing the new AOCS headquarters facility. The technical session which followed, chaired by Bruce Holub of the University of Guelph, featured a talk by J. Edward Hunter of Procter & Gamble, who spoke on "Omega-3 Fatty Acids from Vegetable Oils." Hunter outlined the nutritional rationale behind P&G's decision to use canola oil in its Puritan brand of vegetable oil. He also made suggestions regarding marketing strategies and research needs for canola oil in North

America. Other papers in the session ranged from a discussion of the effect of fatty acids on psychological stress and premenstrual syndrome, to the effect of nicotine on tissue fatty acid composition and behavior.

Jim Dyck of CSP Foods Ltd. chaired the session on processing and utilization. This session featured a talk by Kathleen Warner of the U.S. Department of Agriculture's Northern Regional Research Center

in Peoria, Illinois, who discussed research on the flavor and oxidative stability of soybean, canola and sunflowerseed oils. Her work indicated the relative advantages of each of these oils under different circumstances. For example, soybean oil was relatively stable when heated in the dark while citric acid-stabilized canola oils were more stable in the presence of light. Other papers included a discussion on the market prospects for linseed



Meeting participants study one of the seven posters presented during the first day of the Canadian Section's annual meeting.



Speaker David Mills (right) fields a question after his talk, as session chairman Bruce Holub (left) looks on.



Jim Daun of the Canadian Grain Commission, program chairman for the Canadian Section meeting, welcomes participants to the meeting, held this year in Winnipeg.



Ron Ward (left) of the University of Waterloo receives an award for outstanding graduate student presentation from his father, John Ward (right), a section member, and Canadian Section President Roy Carr (center).

oil, several studies on the physical characteristics of plastic fat blends, proposed ways to remove sulfur from canola oils, and a review of findings from test crushes of canola varieties.

The poster session concluded the first day of the conference. The seven posters covered a wide range of topics, including iron and waxes in canola oil, different sources of γ -linolenic acid, enzyme processing of canola, gas chromatography, flax-bread and hypercholesterolemic rats.

The banquet featured a presentation by Petros Loutas of Canada Packers on some of the experiences encountered by Mexican processors when they began processing canola seed. Loutas had visited Mexico and assisted in solving some of the problems crushers experienced in handling this unfamiliar seed. In particular, canola seed produces a very different flake than do soybean or sunflowerseed. The second day began with a symposium on

breeding and biotechnology of oilseeds, chaired by Rachael Scarth of the University of Manitoba. Four papers highlighted breeding achievements in the modification of the fatty acid composition of soybeans, flaxseed, sunflowerseed, and rapeseed and canola. Other presentations included a discussion on the use of cell cultures for selection of low glucosinolate *Brassicacae* and some experiences in developing lipid-rich aerobic yeast cultures.

The final session dealt with analysis and composition, and was chaired by Madhu Sahasrabudhe of the Food Research Centre of Agriculture Canada. Papers included the fatty acid composition of freshwater fish, sulfur in Ontario canola oils, and molds and mycotoxins in field-damaged soybeans. The two final papers discussed the analysis of glucosinolates and the determination of oil content in canola. A short business meeting chaired by Levente Diosady, the incoming president of the society, followed.

Financial support for the meeting was received from Pembina Mountain Clays and the Canola Council of Canada. Three travel-bursaries for outstanding graduate student papers were provided by the combined donations of Bio-Technica Canada, Chemonics Scientific Ltd., Chromatographic Specialties, CanLab (Travenol Canada Inc.), ContiSeeds, Fisher Scientific and Waters Division of Millipore (Canada) Ltd. Award recipients were Ron Ward of the University of Waterloo, Victor d'Sousa of the University of Guelph and Mark Gijzen of the University of Saskatchewan.

Meeting organizers were Bruce McDonald and Mike Eskin, local arrangements committee, and Eileen McGregor and Jim Daun, program committee.

The third meeting of the Canadian Section tentatively is scheduled for the first week in October 1988 in Ottawa.

Outstanding paper awards

The following received awards for outstanding papers presented at the 1987 AOCS annual meeting in New Orleans. Also included are the titles of the presentations.

- R. Abrishamian, CF Systems Corp., "CFS Process for the Extraction of Oilseeds Utilizing Gas Solvents"
- D. Aharony, Stuart Pharmaceuticals/ICI-A, "Kinetic Mechanism for Regulation of 5-Lipoxygenase Catalysis by Activators and Inhibitors"
- J.A.G. Areas, University of Sao Paulo, "Lipid-Protein Interactions on Structure Stabilization of Extruded Protein Isolates"
- R.F. Ariaansz, Harshaw Chemie B.V., "Determination of Relative Catalyst Activities"
- J. Arul, Université Laval, "Distribution of Cholesterol in Milk Fat Fractions"
- A. Athanassiadis, DeSmet Engineering, "The Deacidification of Vegetable Oils and Animal Fats by Distillation during Deodorization"
- B. Axelrod, Purdue University, "Primary Structures of Soy-

bean Lipoxygenase-1 and -3"

- R.N. Beachy, Washington University, "Expression of Soybean 3-Conglycinin Genes in Transformed Plants"

- G.S. Berenson, LSU Medical School, "Early Onset of Coronary Heart Disease and Hypertension: A Problem for Prevention"

- J.M. Bogdanor, W.R. Grace & Co., "Silica Refining of Edible Oil"

- T. Bolsman, Shell Research B.V., "Chemistry of Long-Chain Peracids under Laundry Conditions"

- A. Boudreau, Université Laval, "Distribution of Cholesterol in Milk Fat Fractions"

- C.C. Bowman, Texas Christian University, "The Effect of Dietary Cottonseed Protein on Urinary Sodium, Potassium and Aldosterone Excretion in Young Adult Women with Down's Syndrome."

- A.R. Brash, Vanderbilt Uni-

versity, "Stereoselective Lipoxygenase Reactions Initiated at Carbon 10 of Arachidonic Acid"

- D.W. Brooks, Abbott Laboratories, "Inhibitors of 5-Lipoxygenase"

- A.S. Carman Jr., U.S. Food and Drug Administration, "Automated Methods for the Assay of Natural Toxins Using Robotics"

- C. Christopoulou, Colgate Palmolive Co., "Dimer Fatty Acids in Heated Fats: Synthesis, Separation and Characterization"

- H.W. Cook, Dalhousie University, (n-6) Fatty Acids in "Interactions of (n-3) and Desaturation and Chain Elongation pathways of "Cells"

- M.F. Cox, Vista Chemical Co., "Effect of Molecular Structure on the Physical Properties and Performance of Linear Alcohol Ethoxylates"

- Michael C. Crossin, Gist Bro-

cade USA Inc., "Protease Stabilization by Carboxylic Acid Salts: Relative Efficiencies and Mechanisms"

- E.J. Denton, Shell Development Co., "A Robotic Approach for the Evaluation of Laundry Detergents"

- N.M. DiMarco, Texas Woman's University, "Alternative Dietary Protein Sources and Their Effects on Synthesis and Absorption of Cholesterol in Hamster During Cholelithiasis"

- E.A. Emken, USDA's Northern Regional Research Center, "Selective Hydrogenation with *tris*(triphenylphosphine)-Chlorohydium (I) Catalyst: Preparation of Octadecenoate Isomers"

- Susan M. Fischer, University of Texas System Cancer Center, "Reactive Oxygen in the Tumor Promotion Stage of Carcinogenesis"

- R.V. Flor, U.S. Customs Service, "HPLC Criteria for Determination of Grade of Commercial Olive Oils"

- R.A. Fong, The Clorox Co., "Laundry Bleaches: Recent Developments in Perborate Activator Chemistry"

- O.J. Francis Jr., U.S. Food and Drug Administration, "The Use of Ten Gram Samples of Corn for the Analysis of Mycotoxins"

- E.H. Goebel, Quimica Sumex S.A., "Bleaching Efficiency of Adsorbent and Bleachability of Oil"

- M.A. Gorman, Texas Christian University, "Effects of Animal and Plant Protein-Containing Diets on Gallstone Formation and Serum and Biliary Constituents in Male and Female Mice"

- T. Grossberger, Best Foods/CPC International, "Determination of Triglyceride Composition"

- M.R. Gumbmann, USDA's Western Regional Research Center, "The Significance of Plant Trypsin Inhibitors in Man's Diet and Control of Residual Inhibitor Activity"

- M. Hamberg, Karolinska Institute, "Mechanism of Corn Hydroperoxide Isomerase: Detection of 12,13(S)-oxido-9(Z),11-octadecadienoic"

- Randal M. Hill, Horizon Chemical, "Micelle Formation,

Apology to subscribers

The American Oil Chemists' Society apologizes to non-North American recipients of *JAOCs* and *Lipids* for late delivery of the January, February and March issues of those journals. Delivery was entrusted by the printer to a private remailing service.

That remailing service did not fulfill its obligation to insure delivery of the journals to recipients. The firm bulk shipped the journals to Malaysia, but did not have funds to pay for their forwarding from Malaysia.

From March through August, AOCS was unable to determine exactly where the journals were. In the meantime, we attempted to provide replacement copies to as many recipients as we could from the limited number of extra copies we have printed each month. We asked many persons to wait as we tried to determine where the journals were and how we were going to get them delivered.

In August, with the cooperation of F.Y. Chum of Pony Express Sdn. Bhd. in Kuala Lumpur, we located the journals and arranged for their entry into the international postal system. Copies began arriving to recipients in October.

Persons who joined AOCS through mid-October 1987 will receive a full set of 1987 journals, but delivery may be delayed. AOCS used its entire supply of the January 1987 issue to replace missing issues. This issue is to be reprinted so copies can be supplied to new members.

We appreciate the patience of our members and subscribers. Persons who were sent replacement copies and later received regular copies may keep both or return the extra copies to AOCS. We have given our printer clear instructions to mail future journals only by the government postal services. Our thanks also to F.Y. Chum for his aid.

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Adsorption and Applications of Alkyl Polyglycosides

- Teruo Horiuchi, Lion Corp., "Physico-Chemical Properties of the Aqueous Vesicle Dispersion Formed with Polyoxyethylene Hydrogenated Castor Oil Ether"
- G. Hornstra, Limburg University, "Influence of Palm Oil on Certain Aspects of the Cardiovascular Risk Profile"
- Jeff C.L. Hsieh, Clorox Technical Center, "Detergency Study of Mixed Surfactant Systems"
- Richard W. Hubbard, Loma Linda University, "Dietary Protein Effects on Blood Amino Acids, Hormones and Lipids"
- G. Huber, Wenger International, "Texturization of Vegetable Food Proteins"
- D.R. Janero, Hoffmann-La Roche, "Analysis of Cardiac Membrane Phospholipid Peroxidation Kinetics as Malondialdehyde (MDA): Quantitation of the Non-Specificity of Thiobarbituric Acid (TBA)-Reactivity"
- P. Karges, Fiatron Systems Inc., "On-Line, Free Fatty Acid Analyzer Utilizing Flow Injection Technology"
- E.M. Kay, University of Saskatchewan, "Separation and Determination of Hydroperoxides from Oxidized Triglycerides Using HPLC"
- J. Kearns, Wenger International Inc., "Extrusion of Vegetable Protein in Aquatic Feeds"
- M.A. Klich, USDA's Southern Regional Research Center, "Recent Field Studies on *Aspergillus Flavus* Infection and Aflatoxin Formation in Arizona Cottonseed: Possible Implications"
- Daniel Kochavi, Novo Laboratories Inc., "Stability of Detergent Enzymes in Mixtures of Anionic and Nonionic Surfactant"
- S.S. Koseoglu, Texas A&M University Food Protein R&D Center, "Membrane Degumming, Refining and Bleaching of Crude Vegetable Oils"
- R.D. Krell, ICI Americas Inc., "Overview of the Physiology and Pharmacology of Peptidoleukotrienes with Special Reference to Leukotriene Receptors and Antagonists"
- N.E. Lawson, Union Camp Corp., "n-Heptanoic Acid from the Reaction of 2-Octanol with Molten Caustic"
- F.T. Lindgren, USDA's Western Regional Research Center, "The Molecular Weight of Apo B 100 in Low Density Lipoprotein Subfractions in Normal Males"
- T.K. Mag, Canada Packers Inc., "Experience with Physical Refining of Canola Oil"
- J.E. Massaux, Colgate Palmolive R&D Inc., "Trends in New Bleach Technology for Home Laundering"
- S.M. McCurdy, POS Pilot Plant Corp., "Effects of Processing on the Functional Properties of Canola/Rapeseed Protein"
- L.A. Miller, Iowa State University, "Quantification of Carbonyl Compounds in Oxidized Low Linoleate, High Stearate and Common Soybean Oils"
- C.V. Morr, Clemson University, "Current Status of Soy Protein Functionality in Food Systems"
- Carter G. Naylor, Texaco Chemical Co., "Biodegradation of Nonionic Surfactants Containing Propylene Oxide"
- D.V. Okonek, Harshaw/Filtrol Partnership, "Hydrogenation of Canola and Soybean Oil: A Comparison"
- I. Ottesen, AS Denofa OG Lilleborg Fabriker, "Adsorption Effects of Catalyst Poisons on Bleaching Earth"
- J.A. Panford, Canadian Grain Commission, "Analysis of Diverse Oilseeds for Protein, Oil and Fibre by Near Infrared Reflectance Spectroscopy"
- D.L. Park, U.S. Food and Drug Administration, "Reduction of Aflatoxin Contaminants by Ammoniation: Regulation and Status"
- Michael E. Pisani, ERM-Southwest Inc., "The Ramification of the Superfund Amendments and Reauthorization Act (SARA) on the Corporate Environmental Manager"
- J.N. Pryor, W.R. Grace & Co., "Chlorophyll Removal from Edible Oils"
- G. Rakes, Central Soya Co. Inc., "Review of Textured Soy Protein Concentrates, Manufacture and Products and Major Applications"
- M.A. Reynolds, BASF Corp., "Performance Benefits of Acrylic/Maleic Co-Polymers in Laundry Detergents"
- C.A. Rouzer, Merck Frosst Canada Inc., "Regulation of Human Leukocyte 5-Lipoxygenase"
- A. Sanchez, Loma Linda University, "Dietary Protein Effects on Blood Amino Acids, Hormones and Lipids"
- K. Sato, Hiroshima University, "Solvent Crystallization of Polymorphs of Principal Unsaturated Fatty Acids" and "Polymorphism of 2-Oleyl Di-saturated Acids Triglycerides: POP, SOS, AOA and BOB"
- John F. Scamehorn, University of Oklahoma, "Precipitation of Anionic/Cationic Surfactant Mixtures"
- K.M. Schaich, Brookhaven National Laboratory, "Fenton Reactions in Lipid Phases"

Approved chemists

The following should be added to the listing of approved chemists certified by the AOCS Examination Board, published in the September 1987 issue of *JAOCS*.

Charles V. Bacon Inc.
1448 McArthur Ave.
PO Box 97
Marrero, LA 70072
504-347-1468

Albert M. Raynaud
Norman E. Landeche

Soybeans
Oil Cake and Meal
Cottonseed Oil
Soybean Oil and Other
Fatty Oils
Tallow and Grease
Protein Concentrates
Fish Meal
Fish Oil
Fish Solubles

- D. Scherer, Calgene Inc., "Genetic Engineering of ACP Levels in Rapeseed"
- D.B. Shaw, Laporte Inorganics, "Factors Influencing the Filtration of Triglyceride Oil Suspensions of Bleaching Earth"
- W.T. Shebs, Shell Development Co., "Radiolabelled Blood for Detergency Testing: Development and Applications"
- V.K.S. Shukla, Aarhus Oliefabrik, "Studies on the Crystallization Behavior of the Confectionery Fats by Pulse Nuclear Magnetic Resonance Employing Various Tempering Modes"
- Paul A. Siracusa, Union Carbide Corp., "Evaluation of Automatic Dishwashing Detergents: Critical Parameters Affecting the Estimation of Foam"
- P. Sjoeborg, Alfa-Laval Food Engineering AB, "New Develop-

ment of the Deodorization Process"

- R.T. Sleeter, ADM Co., "Automated Quantitative Analysis of Isolated *trans* Isomers Using Fourier Transform Infrared Spectroscopy Incorporating Improvement in the Procedure"
- Dewey L. Smith, Vista Chemical Co., "Interactions of Surfactants with Alumina Based Thickening Agents"
- S.R. Srinivasan, Louisiana State University Medical Center, "Divergent Effects of Dietary Carbohydrate Types on Serum Lipoproteins of Non-Human Primates"
- Kevin Stellner, Lever Research Inc., "Precipitation of Anionic/Cationic Surfactant Mixtures"
- Michael Swartzlander, Horizon Chemical, "Micelle Formation, Adsorption and Applications of Alkyl Polyglycosides"
- D.R. Taylor, Harshaw/Filtrol Partnership, "Alternative Layered Compounds for Bleaching Oils: A Comparison with Acid-Activated Montmorillonite"
- Gerrit A. Veldink, Utrecht University, "Lipoxygenase Catalyzed Reactions"
- B.A. Vick, "The Linoleic and Linolenic Acid Cascades in Plants"
- R. Villota, University of Illinois, "Extrusion Performance of Functionally Modified Oilseed Proteins"
- J.F.G. Vliegthart, "Lipoxygenase Catalyzed Reactions"
- A.D. Vreugdenhil, Koninklijke/Shell-Laboratorium, "Chemistry of Long-Chain Peracids Under Laundry Conditions"
- E.W. Winkler, BASF AG, "Calcium Binding Capacity—An Attempt at a Definition"
- Werner Zschau, Süd-Chemie AG, "The Use of Bleaching Clay: An Optimization"

Certified labs

Three additional laboratories have been certified by AOCS for 1987-88 in using AOCS methods in analysis of soybean meal; these supplement the list published in the September 1987 issue of *JAACS*. The laboratories qualify by enrolling for a special series of soybean meal analytical tests and are eligible for use as referee chemists in soy meal analysis for the National Soybean Processors Association.

- Hahn Laboratories
1111 Flora St.
PO Box 1177
Columbia, SC 29202
- LaMura Laboratories Inc.
1314 Fourth St. SW
Mason City, IA 50401
- Woodson-Tenant
Laboratories Inc.,
1805 E. 5th St.
PO Box 5341
North Little Rock, AR
72119

Building donations

Additional donations to the AOCS building drive were received by AOCS after the November issue of *JAACS* went to press.

Hoffmann-La Roche Inc.'s Fine Chemical Division of Nutley, New Jersey, and Akzo Chemie America each made a contribution at the Benefactor level (\$1,000 minimum) and Stepan Co. of Northfield, Illinois, gave a contribution at the Major Benefactor level (\$5,000 minimum).

Individuals who made donations at the Contributor level (under \$100) were Douglas A. Cavanagh and Kohel Hayashi.

Obituary

LINWOOD N. ROGERS

AOCS emeritus member Linwood Nicholas Rogers of Memphis, Tennessee, died Oct. 7, 1987. Rogers, who was 86, joined the society in 1938 while serving as chief chemist in the pulp department at the Buckeye Cotton Oil Co. in Memphis.

He joined Buckeye's staff in 1927 following four years at Celanese Corp. where he was assistant superintendent in the cellulose acetate department. At the time of his retirement in 1961, he was director of research and development at the Buckeye Cellulose Corp., a Procter & Gamble subsidiary.

Rogers graduated with a B.S. in chemistry from the University of Virginia in 1925 and was a member of Alpha Chi Sigma Honorary Society. He also was a member of the Technical Association of the Pulp and Paper Industry, the Engineers' Club, and the American Chemical Society, in which he served as a counselor representing the city of Memphis.

In addition to his professional activities, Rogers was active in his community. He helped establish the Memphis Exchange Club and belonged to the Eudora Baptist Church. He enjoyed fishing and worked on the Board of the Horseshoe Lake Hunting and Fishing Club.

His wife, Mary Julia Tipton, died in February 1985. The couple had no children.