

Meetings



AOCs Annual Meeting

Philadelphia • Franklin Plaza Hotel • May 5-9, 1985

Philadelphia programs announced

Registrants for the AOCs' 76th annual meeting in Philadelphia this May will find something new and something old when they arrive.

The new developments include the extensive technical reports on fats and oils and related topics during the May 5-9 meeting in the Franklin Plaza Hotel, new social events and new ways of handling tickets.

The tentative technical program is published in this issue of JAOCS. Abstracts will be published in the April JAOCS, which will be distributed to all technical program registrants at the meeting.

The new social events include a five-kilometer "First Annual Fat People's Fun Run," and two bus trips to new casino hotels in Atlantic City. Details are provided in the accompanying article on social events.

The ticketing system for the traditional Wednesday evening banquet is different. Whereas the cost of banquet tickets previously was included in registration fees, this year it is not. Persons who wish to attend the banquet must buy tickets separately. Cost is \$25 if ordered at the time you pre-register (see registration form in this issue of JAOCS). People who wait till they arrive in Philadelphia to buy their tickets will pay \$35 each.

The "old" to be seen in Philadelphia is the city itself. One of America's oldest cities, Philadelphia during colonial days was virtually the crossroads for the northern and southern colonies. Registrants for the spouses' program will spend one day touring some of the historic sites including Independence Hall, where the Continental Congress adopted the Declaration of Independence.

The opening reception on Sunday evening, May 5, will be in the Franklin Institute, a national memorial to Benjamin Franklin, perhaps Philadelphia's best known historical figure.

The conference registration desk in the Franklin Plaza Hotel will open at noon on Sunday, May 5, and will close at 6 p.m. The registration desk will re-open at 6:30 a.m. Monday, May 6, so that late arrivers may obtain tickets for the plenary breakfast session to be held that morning. That session will include the AOCs official annual business meeting and a keynote address by Melvin Calvin, Nobel laureate in chemistry. There will be a second breakfast session on Wednesday, May 8, at which AOCs awards will be presented and new officers installed.

If the registration and housing forms included with this issue have been removed, you may order additional forms from the Meetings Coordinator, AOCs, 508 S. Sixth St., Champaign, IL 61820 USA. On-site registration also is permitted, at a slightly higher fee, but persons who plan to register on-site should make their housing reservations before arriving in Philadelphia. AOCs expects to use all available sleeping rooms in the Franklin Plaza Hotel, and those who delay making housing reservations will be accommodated in other nearby hotels.



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Session Schedule

Monday, May 6, 1985

Morning

Plenary Session—Keynote Speaker Melvin Calvin, Nobel laureate
 Jojoba
 Recent Trends in the Usage of Fats and Oils in the Baking Industry
 Productivity Management
 Neurochemical Aspects of Lipid Metabolism: Selected Topics
 HPLC in the Analysis of Lipids I
 Specialty Lipids and Their Biofunctionality I

Afternoon

Utilization of Vegetable Protein in Foods
 Lipid Metabolism in Disease
 Thermal-Oxidative Effects on Lipids
 Use of Computers in Process Technology
 Surfactants and Detergents I: Performance, Evaluation and Analysis
 HPLC in the Analysis of Lipids II
 Specialty Lipids and Their Biofunctionality II

Tuesday, May 7, 1985

Morning

Nutritional Value and Metabolic Effect of Vegetable Protein
 Lipids and Immune Response
 Chemistry and Biochemistry of Cholesterol Oxidation
 Fat and Oil Processing (General) I
 Surfactants and Detergents II: Surfactant Interaction
 Flavor Chemistry of Fats and Oils I

Afternoon

Analytical Methods for Protein I
 Lipid Metabolism, General
 Human Milk Lipids
 Biological Activities of Oxidized Sterols
 Lipids in Food Products
 Fat and Oil Processing (General) II
 Flavor Chemistry of Fats and Oils II

Wednesday, May 8, 1985

Morning

Plenary Session: Acceptance Address by 1985 Recipient of Supelco AOCS Research Award
 Analytical Methods for Protein II
 Special Processes and Oil Sources
 Lipids and Cancer I: Brian L. Walker Memorial Symposium
 Chemistry Biosynthesis and Function of Sterols I: H.W. Kircher Memorial Symposium
 Trends in Edible Oil Processing and Consumption in Various Parts of the World I
 Surfactants and Detergents III: Open Forum—Current and Future Perspectives

Afternoon

Hydrogenation, Dehydrogenation and Interesterification
 Biochemistry of Fatty Acids
 Lipids and Cancer II: Brian L. Walker Memorial Symposium
 Chemistry Biosynthesis and Function of Sterols II: H.W. Kircher Memorial Symposium
 Trends in Edible Oil Processing and Consumption in Various Parts of the World II
 Olefin Sulfonates—Versatile Surfactants for Household and Industry
 New and Improved Methods for the Analysis of Lipids
 Poster Presentations

Thursday, May 9, 1985

Morning

Protein Quality
 HPLC of Proteins
 Physical and Organic Aspects of Fatty Acids and Their Derivatives
 General
 Gas Chromatography in the Measurement of Food Quality
 Surfactants and Detergents IV: Dispersions

Meetings

Monday, May 6, 1985

Morning

Plenary Session

Keynote speaker, Nobel Laureate Melvin Calvin

Jojoba

Chairperson: N. Vietmeyer, National Academy of Sciences, Washington, DC

THE STATUS OF JOJOBA AS A COMMERCIAL CROP

C.A. Whittaker, The Jojoba Growers Association, Phoenix, AZ

DETERMINATION OF ACID VALUE, PEROXIDE VALUE, COLOR AND PURITY OF JOJOBA OIL

R.L. Price, University of Arizona, and H. Purcell, Jojoba Growers Association

RECENT DEVELOPMENTS IN THE CHEMISTRY AND APPLICATIONS OF JOJOBA OIL

J. Wisniak, Ben Gurion University of the Negev, Israel

EFFECTS OF FEEDING JOJOBA WAXES TO RATS: A 90-DAY STUDY

R. Stalder, M. Marchesini, A. Bexter, Nestec Ltd.

MITOCHONDRIAL Ca^{2+} -TRANSPORT KINETICS IN LIVERS OF RATS FED JOJOBA WAXES

K. Anantharaman, R. Guidoux, Nestec Ltd.

COSMETICS BASED ON JOJOBA OIL: EMULSION CHARACTERISTICS

H. Libby, S. Libby, R.L. Realina, F. Tayag, Libby Laboratories

NATURE OF THE STORED FAT IN RATS FED JOJOBA WAXES

K. Anantharaman, P. Reinhardt, Nestec Ltd.

Recent Trends in the Usage of Fats and Oils in the Baking Industry

Chairperson: O.K. Chung, U.S. Grain Marketing Research Laboratories, Manhattan, KS

INTRODUCTION

O.K. Chung, U.S. Grain Marketing Research Laboratories, Manhattan, KS

FATS AND SURFACTANTS IN EVALUATION OF HARD RED WINTER WHEATS IN PLANT BREEDING PROGRAMS

O.K. Chung, Y. Pomeranz and M.D. Shogren, U.S. Grain Marketing Research Laboratories, Manhattan, KS

SOME FACTORS RELATING FATS TO BREAD FIRING

J.G. Ponte Jr., F.A. Cole Jr., Kansas State University, Manhattan, KS, and K. Kulp, American Institute of Baking, Manhattan, KS

PROPERTIES AND FUNCTIONALITY OF FATS IN SWEET GOODS AND CRACKERS

C.K. Dartey, Nabisco Brands, Inc., Fair Lawn, NJ

FUNCTIONAL EFFECTS OF DOUGH CONDITIONERS

ON CHANGING OIL REQUIREMENTS IN THE BAKING INDUSTRY

J.L. Van Haften, R.J. Tenney and V.D. Barry, C.J. Patterson Co., Kansas City, MO

FATS AND SURFACTANTS USED IN THE EUROPEAN BAKING INDUSTRY

N. Krog and T. Johnsson, Grindsted Products A/S, Denmark

FATS AND OILS: NUTRITIONAL DIMENSION

E. Hunter, Procter & Gamble Co., Cincinnati, OH
DISCUSSION

Productivity Management

Chairperson: W. Barger, W.M. Barger and Associates, Piqua, OH

PRODUCTIVITY MANAGEMENT IN THE OIL, FAT AND CHEMICAL DERIVATIVE PROCESSING PLANTS

P. Kalustian, Peter Kalustian Associates Inc., Boonton, NJ

IMPROVING PERSONAL PERFORMANCE AND MANAGEMENT PRODUCTIVITY

R.R. Rushowy, P/S & Associates, Toronto, Ontario, Canada

PRODUCTIVITY MANAGEMENT IN VEGETABLE OIL REFINERIES

N. J. Smallwood, A.E. Staley Mfg. Co., Des Moines, IA

MANAGEMENT SYSTEMS FOR CREATIVE PRODUCT DEVELOPMENT

M.E.Ginn, Illinois Institute of Technology, Chicago, IL

Neurochemical Aspects of Lipid Metabolism: Selected Topics

Chairperson: S.L. Miller, The Wistar Institute, Philadelphia, PA

DIFFERENT FUNCTION OF BRAIN PHOSPHOLIPIDS--STRUCTURAL AND SECOND MESSENGER ROLES

P. Morell, University of North Carolina, Chapel Hill, NC

GANGLIOSIDES AND THEIR ROLE IN NERVOUS TISSUE

R. Yu, Yale University, New Haven, CT

EFFECTS OF ISCHEMIA AND BRAIN STIMULATION ON BRAIN LIPID METABOLISM

N. Bazan, Louisiana State University Eye Center

SPHINGOLIPIDOSIS

K. Suzuki, Albert Einstein College of Medicine, New York, NY

ESSENTIAL FATTY ACID DEFICIENCY--EFFECTS ON BRAIN LIPIDS

S.L. Miller, The Wistar Institute, Philadelphia, PA

Meetings

High Performance Liquid Chromatography in the Analysis of Lipids I

Chairperson: E.G. Perkins, University of Illinois, Urbana, IL

FRACTIONATION AND ANALYSIS OF LIPID CLASSES, FATS AND OILS BY HPLC VIA A FLAME IONIZATION DETECTOR

O.S. Privett, W.L. Erdahl and F.C. Phillips, Hormel Institute, University of Minnesota, Austin, MN

HPLC OF TRIGLYCERIDES USING GRADIENT ELUTION

B. Hersloef, G. Kindmark, C. Thoerngren, KabiVitrum AB, Stockholm, Sweden

REVERSE PHASE HPLC OF PHOSPHOLIPIDS

N. Sotirhos, B. Hersloef, C. Thoerngren, KabiVitrum AB, Stockholm, Sweden

HPLC OF TRIGLYCERIDES SYSTEM AND SOLVENT EFFECTS

E.G. Perkins and David Hendren, University of Illinois, Urbana, IL

HIGH PERFORMANCE GEL PERMEATION CHROMATOGRAPHY OF METHYL ESTERS, MONO-, DI- AND TRIGLYCERIDES MIXTURES

C.N. Christopoulou and E.G. Perkins, University of Illinois, Urbana, IL

Specialty Lipids and Their Biofunctionality I

Chairpersons: V.K. Babayan, Harvard Medical School, Boston, MA and J. Kabara, Michigan State University, East Lansing, MI

MEDIUM CHAIN TRIGLYCERIDES AND STRUCTURAL LIPIDS

V.K. Babayan, Harvard Medical School, Boston, MA

ABSORPTION OF SAFFLOWER OIL AND STRUCTURED LIPID PREPARATIONS IN PATIENTS WITH CYSTIC FIBROSIS

V.S. Hubbard, National Institutes of Health, Bethesda, MD, and M.C. McKenna, University of Maryland School of Medicine, Baltimore, MD

ICOSANOID SYNTHESIS BY PLATELETS OF CHILDREN WITH CHOLESTATIC DISEASE

O. Amédée-Manesme, l'Hopital de Bicêtre, Bicêtre, France, and J. Dupont,* Iowa State University, Ames, IA

INFLUENCE OF MEDIUM CHAIN TRIGLYCERIDES ON RAT MAMMARY TUMOR DEVELOPMENT

L.A. Cohen, Naylor Dana Institute of Disease Prevention, Valhalla, NY, and D.O. Thompson, State University of New York, Purchase, NY

MEDIUM CHAIN TRIGLYCERIDES AND STRUCTURED LIPIDS AS UNIQUE NON-ENERGY SOURCES IN HYPERALIMENTATION

E.A. Mascioli, New England Deaconess Hospital, Boston, MA, and V.K. Babayan and G.L. Blackburn, Harvard Medical School, Boston, MA

Afternoon

Utilization of Vegetable Protein in Foods

Chairpersons: A.C. Peng, Ohio State University, Columbus, OH, and K.C. Rhee, Texas A&M University, College Station, TX

UTILIZATION OF VEGETABLE PROTEIN IN BAKERY PRODUCTS

W.J. Hoover, American Institute of Baking, Manhattan, KS

FERMENTED AND UNFERMENTED PROTEIN FOODS FROM LEGUMES

C.W. Hesseltine, USDA Northern Regional Research Center, Peoria, IL

UTILIZATION OF VEGETABLE PROTEINS IN INFANT FORMULAS

W.A.B. Thomson, Ross Laboratories, Columbus, OH

DEVELOPMENT OF IMITATION CHEESES FROM PLANT PROTEINS

K.C. Rhee, Texas A&M University, College Station, TX

THE FUNCTIONALITY OF OILSEED PROTEINS AND THEIR PERFORMANCE IN BAKED PRODUCTS

S.L. Melton, University of Tennessee, Knoxville, TN

Lipid Metabolism in Disease

Chairperson: D. Kritchevsky, The Wistar Institute, Philadelphia, PA

DIETARY PROTEIN AND ATHEROSCLEROSIS

D. Kritchevsky, S.A. Tepper and D.M. Klurfeld, The Wistar Institute, Philadelphia, PA

DIETARY PROTEIN EFFECTS ON GALLSTONE FORMATION IN HAMSTERS

D.M. Klurfeld and D. Kritchevsky, The Wistar Institute, Philadelphia, PA

INABILITY OF SKIN ENZYME PREPARATIONS TO BIOSYNTHESIZE ARACHIDONIC ACID FROM LINOLEIC ACID

R. Chapkin and V.A. Ziboh, University of California, Davis, CA (Honored Student Presentation)

ISOPRENE: BIOSYNTHESIS AND ROLE IN POLYISOPRENOID METABOLISM

E.S. Deneris, University of California, Los Angeles, CA (Honored Student Presentation)

STUDIES ON THE METABOLISM OF MALONDIALDEHYDE

H.H. Draper, L.G. McGirr, M. Hadley and L. Polensek, University of Guelph, Guelph, Ontario, Canada

Thermal-Oxidative Effects on Lipids

Chairperson: E.H. Hammond, Iowa State University, Ames, IA

Meetings

AN HPLC METHOD FOR ANALYZING HIGH MOLECULAR WEIGHT COMPOUNDS FORMED IN HEATED OILS

P.J. White and Y-C. Wang, Iowa State University, Ames, IA

DIMER ISOLATION AND CHARACTERIZATION IN THERMALLY OXIDIZED FATS

C.N. Christopoulou and E.G. Perkins, University of Illinois, Urbana, IL

COMPARISON OF THE CYCLIC FATTY ACID MONOMERS FORMED DURING THE HEAT TREATMENT OF VEGETABLE OILS

J.L. Sebedio and J. Prevost, I.N.R.A., Dijon Cedex, France, and O. Morin, ITERG, Pessac, France

IDENTIFICATION IN LIVER LIPIDS OF RATS FED A HIGH LINOLENIC ACID HEATED OIL OF A 20:5 FATTY ACID HAVING A *trans* ETHYLENIC BOND

A. Piconneaux, A. Grandgirard and J.L. Sebedio, I.N.R.A., Dijon Cedex, France

ENZYMATIC HYDROLYSIS OF THERMALLY OXIDIZED CANOLA OIL

J.C. Alexander and H. Yoshida, University of Guelph, Guelph, Ontario, Canada

THERMAL OXIDATION OF BUTTERFAT AND BUTTERFAT FRACTION IN COMPARISON TO SELECTED VEGETABLE OILS

D.B. Kupranycz, M.A. Amer and B.E. Baker, McGill University, Ste Anne de Bellevue, Quebec, Canada

RETARDATION OF RANCIDITY IN DEEP-FRIED INSTANT NOODLE (RAMYON)

K.L. Rho, P.A. Seib and D.S. Chung, Kansas State University, Manhattan, KS, and O.K. Chung, USDA Grain Marketing Research Laboratories and Kansas State University, Manhattan, KS (Honored Student Presentation)

THE REPROCESSING AND REUSE OF SPENT RESTAURANT GREASE AND THE ENVIRONMENTAL CONTROL PROCEDURES NECESSARY

B.F. Osborne, West Coast Reduction Ltd., Vancouver, British Columbia, Canada

A TECHNIQUE FOR MONITORING THE QUALITY OF USED FRYING OILS

P-F. Wu and W.W. Nawar, University of Massachusetts, Amherst, MA

Use of Computers in Process Technology

Chairperson: M. Blumenthal, Gantt Systems Inc., Metuchen, NJ

SCHEDULING AND ANALYSIS OF PROCESS EVENTS

G.B. Hirsch and M.M. Blumenthal, Gantt Systems Inc., Metuchen, NJ

THE EMERGING ROLE OF COMPUTERS IN THE PROCESS PLANT

J.E. Blanchard, The Foxboro Company, Foxborough, MA

THE USE OF ROBOTICS IN CHEMICAL ENVIRONMENTS

J.N. Little, R.K. Brown and J. Hofmann, Zymarck Corporation, Hopkinton, MA

CONTINUOUS AND BATCH CONTROL WITH COMPUTERS IN EDIBLE OIL PROCESSING

P.H. Bush, P.A. Bollheimer and J.S. Harris, PSI Process Systems Inc., Memphis, TN

USE OF COMPUTERIZED DATA ACQUISITION IN MONITORING AND CONTROLLING TECHNICAL PROCESSES

A. Reinhard, Keithley/DAS, Boston, MA

Surfactants and Detergents I: Performance, Evaluation and Analysis

Chairperson: W.M. Linfield, USDA Eastern Regional Research Center, Philadelphia, PA

Titles and authors unavailable at press time.

HPLC in the Analysis of Lipids II

Chairperson: E.G. Perkins, University of Illinois, Urbana, IL

USE OF THE LIGHT SCATTERING DETECTOR IN ANALYSIS OF LIPIDS

A. Prevot, Institute des Corps Gras, Pessac, France, J.L. Perrin, ITERG, and H. Stolywo and G. Guiochon, Ecole Polytechnique, Palaiseau, France

HPLC OF FATTY NITROGEN DERIVATIVES OR FROM ON THE HOOF TO ON THE ROAD

G. Szajer and L. Yodual, Akzo Chemie America, McCook, IL

IDENTIFICATION OF FATTY ACID ESTERS OF CHLOROPROPANEDIOL IN MILK FATS BY LC/MS

J. Cerebulis, O.W. Parks and H.M. Farrell Jr., USDA Eastern Regional Research Center, Philadelphia, PA, and A. Kuksis, L. Marai and J.J. Myher, University of Toronto, Toronto, Ontario, Canada

A NEW FLAME IONIZATION DETECTOR FOR THE LIQUID CHROMATOGRAPHY OF OILS, ETC.

J.B. Dixon, Tracor Instruments Austin Inc., Austin, TX

OVERPRESSURE LAYER CHROMATOGRAPHY

J.M. Newman, Newman-Howells Associates Ltd., Winchester, England

RECENT APPLICATIONS OF THE HIGH PERFORMANCE LIQUID CHROMATOGRAPHY TO OILS AND FATS ANALYSIS

V.K.S. Shukla, Aarhus Oliefabrik A/S, Aarhus, Denmark

Specialty Lipids and Their Biofunctionality II

Chairpersons: V.K. Babayan, Harvard Medical

Meetings

School, Boston, MA, and J. Kabara, Michigan State University, East Lansing, MI

MEDIUM CHAIN TRIGLYCERIDES IN EARLY LIFE

S.A. Hashim, St. Luke's-Roosevelt Hospital Center and Institute of Human Nutrition, New York, NY

THE EFFECT OF MEDIUM AND LONG CHAIN TRIGLYCERIDES ON HUMAN ADIPOSE TISSUE METABOLISM

D.P. Katz and J.L. Knittle, Mount Sinai School of Medicine, New York, NY

ADAPTIVE CHANGES IN AGING—ROLE OF CHOLESTEROL

H. Kaunitz, College of Physicians and Surgeons of Columbia University, New York, NY

BIOLOGICAL ACTIVITIES AND METABOLISM OF AN ANTIHYPERTENSIVE ACETYLATED ETHER-LINKED PHOSPHOLIPID (PLATELET ACTIVATING FACTOR)

F. Snyder, M.L. Blank, T-C. Lee and B. Malone, Oak Ridge Associated Universities, Oak Ridge, TN

ROLE OF FATTY ACIDS ON INTERCELLULAR COMMUNICATION

C.F. Aylsworth, J.E. Trosko and J.J. Kabara,* Michigan State University, East Lansing, MI

Tuesday, May 7, 1985

Morning

Nutritional Value and Metabolic Effect of Vegetable Protein

Chairpersons: G.U. Liepa, Texas Woman's University, Denton, TX, and F.H. Steinke, Ralston Purina Company, St. Louis, MO

EFFECTS OF DIETARY COTTONSEED PROTEIN AND CASEIN ON SERUM AND BILIARY LIPIDS, SERUM AMINO ACIDS AND GALLSTONE FORMATION IN THE HAMSTER

G.U. Liepa, N.M. DiMarco and J. Anderson, Texas Woman's University, Denton, TX, and M.A. Sullivan, Texas Christian University

DIETARY ANIMAL AND PLANT PROTEINS AND THEIR EFFECTS ON LIPID METABOLISM IN STREPTOZOTOCIN-DIABETIC RATS

N.M. DiMarco, N. Chantranuwas, J. Ashby and G.U. Liepa, Texas Woman's University, Denton, TX

ROLE OF DIGESTIBILITY IN THE CHOLESTEROL-LOWERING EFFECT OF DIETARY SOYBEAN PROTEIN

A.C. Beynen, University of Utrecht, Utrecht, The Netherlands, and C.E. West, Agricultural University, Wageningen, The Netherlands

NUTRITIONAL VALUE OF VEGETABLE PROTEIN: AN OVERVIEW

F.H. Steinke, Ralston Purina Company, St. Louis, MO

VEGETABLE PROTEINS AND MINERAL UTILIZATION IN HUMANS

C. Miles, USDA Human Nutrition Research Center, Beltsville, MD

THE NUTRITIONAL VALUE OF PROTEIN FROM DIFFERENT VEGETABLE PROTEIN SOURCES

C.E. Bodwell, USDA Human Nutrition Research Center, Beltsville, MD

CHANGES IN LIPID CLASSES AND FATTY ACID COMPOSITION IN THE DEVELOPING WINGED BEAN SEEDS

H-T. Khor, University of Malaya, Kuala Lumpur, Malaysia

PINTO BEAN HIGH PROTEIN FLOUR: CHARACTERISTICS AND UTILIZATION OF DRY ROASTED AIR-CLASSIFIED FRACTION

M.E. Zabik and M.A. Uebersax, Michigan State University, East Lansing, MI, and E.W. Lusas, Texas A&M University, College Station, TX

PROPER USE OF PROTEIN SOURCES

S.H. Fatemi, Iranian Research Organization of Science and Technology, Tehran, Iran

Lipids and Immune Response

Chairperson: P.V. Johnston, University of Illinois, Urbana, IL

SIMULTANEOUS ASSESSMENT OF ARACHIDONATE RELEASE AND UTILIZATION BY PG SYNTHETASE AND LIPOXYGENASE IN STIMULATED RAT MO

L. Marshall and T. Hoffman, Center for Drugs and Biologics, FDA, Bethesda, MD, and William Becker, CPC International Best Foods

DIETARY α -LINOLENIC ACID AND ANTI-TUMOR ACTIVITY IN THE MOUSE

K. Fritsche and P.V. Johnston, University of Illinois, Urbana, IL

EVIDENCE FOR A PHOSPHOLIPID SPECIFIC PHOSPHOLIPASE IN ALVEOLAR MACROPHAGES

M.D. Wiederhold, Rush-Presbyterian St. Lukes Medical Center, Chicago, IL, and D.W. Ou,* University of Illinois, Chicago, IL

THE EFFECT OF VITAMIN E AND DIETARY FAT TYPE ON THE IMMUNE RESPONSE OF YOUNG AND OLD MICE

S.N. Meydani, Nutritional Center on Aging at Tufts and Brandeis University, USDA Human Nutritional Research Center on Aging, Boston, MA, and A. Shapiro, M. Meydani and J.B. Blumberg, USDA Human Nutrition Research Center

Chemistry and Biochemistry of Cholesterol Oxidation

Chairperson: L.L. Smith, University of Texas Medical Branch, Galveston, TX

CHLORINATED HYDROCARBON MEDIATED CHOLESTEROL DEGRADATION

J.E. van Lier and R. Langlois, University of Sherbrooke Medical Center, Sherbrooke, Quebec, Canada

Meetings

CHOLESTEROL OZONIZATION IN NONPARTICIPATING SOLVENT

K. Jaworski and L.L. Smith, University of Texas Medical
Branch, Galveston, TX

AUTOXIDATION OF SITOSTEROL IN LIPID SYSTEMS OF DIFFERENT UNSATURATION DEGREE

N. VI. Yanishlieva-maslarova and E.M. Marinova,
Bulgarian Academy of Sciences, Sofia, Bulgaria

SOME ASPECTS OF THE ANALYSIS OF MINOR OXYGENATED STEROLS IN SERUM AND IN SERUM LIPOPROTEIN FRACTIONS

C.J.W. Brooks, J. McLachlin, T.D.V. Lawrie and
W.J. Cole, University of Glasgow, Glasgow, Scotland

DETERIUM-LABELED CHOLESTEROL AS AN INTERNAL STANDARD IN THE ANALYSIS OF OXIDIZED STEROLS

B. Wasilchuk, P. Feibush, P.W. LeQuesne and P. Vouros,
Northeastern University, Boston, MA

QUANTITATION OF CHOLESTEROL OXIDATION PRODUCTS IN SOME COMMON FOODS

S.W. Park and P.B. Addis, University of Minnesota,
St. Paul, MN

INTESTINAL ABSORPTION OF CHOLESTEROL AUTOXIDATION PRODUCTS IN DIETARY FAT

J. Bascoul, N. Domergue and A. Crastes de Paulet,
Institut de la Santé et de la Recherche Médicale,
Montpellier, France

EVIDENCE FOR A HYDROXYSTEROL BINDING PROTEIN IN DIFFERENT CELL LINES: CHARACTER- IZATION AND BIOLOGICAL IMPLICATIONS

M. Astruc, F. Beseme, R. Defay and A. Crastes de Paulet,
Institut de la Santé et de la Recherche Médicale,
Montpellier, France

LEVELS OF CHOLESTEROL OXIDATION IN SOME SWEDISH FOODS

L. Appleqvist and J. Nourooz-Zadeh, University
of Agricultural Science, Uppsala, Sweden

Fat and Oil Processing (General) I

Chairperson: F. Luddy, Chemical Biotech
Research Inc., Lansdale, PA

PHOSPHORUS COMPOUNDS IN REFINED PALM OIL

W.L. Siew and A.S.H. Ong, Palm Oil Research Institute
of Malaysia, Kuala Lumpur, Malaysia, and J.C. Allen,
North East Wales Institute, England

RATES OF ADSORPTION OF SOY OIL PHOSPHOLIPIDS ON SILICA AND THE EFFECT OF SILICA CONCENTRATION

H.G. Brown and H.E. Snyder, University of Arkansas,
Fayetteville, AR

PILOT PLANT STUDIES ON EXTRACTING COTTONSEED WITH METHYLENE CHLORIDE

L.A. Johnson, J.T. Farnsworth, N.Z. Hassanen and
E.W. Lusas, Texas A&M University, College Station, TX

Hydrogenation

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Meetings

FACTORS INFLUENCING SOYBEAN OIL EXTRACTION RATES

K.L. Wiese and H.E. Snyder, University of Arkansas, Fayetteville, AR (Honored Student Presentation)

EXAMINATION OF THE SELF-DEGUMMING PROPERTIES OF PHOSPHOLIPIDS IN SOYBEAN OIL

J.E. Ragan, Ralston Purina Company, St. Louis, MO, and A.P. Handel, Drexel University, Philadelphia, PA

SEQUENTIAL EXTRACTION PROCESS FOR EXTRACTING OIL AND AFLATOXINS FROM COTTONSEED

N.Z. Hassanen, L.A. Johnson, J.T. Farnsworth and E.W. Lusas, Texas A&M University, College Station, TX (Honored Student Presentation)

DETERMINATION OF PHOSPHORUS IN SOYBEAN OIL USING NEPHELOMETRY

R.D. Sinram, A.E. Staley Manufacturing Co., Decatur, IL

THE FUNCTION OF BLEACHING EARTH IN THE PROCESSING OF SOY OIL

D. Shaw, LaPorte Inorganics, Widnes, England

THE POTENTIAL OF RECOVERING VITAMIN E FROM OIL PALM

A. Gapor, A. Kato, T. Kawada and H. Watanabe, Palm Oil Research Institute of Malaysia, Kuala Lumpur, Malaysia

Surfactants and Detergents II—Surfactant Interaction

Chairperson: A. Cahn, consultant, Pearl River, NY

A REVIEW OF MOLECULAR INTERACTION AND SYNERGISM IN BINARY MIXTURES OF SURFACTANTS

M. Rosen, Brooklyn College, City University of New York, Brooklyn, NY

INTERACTIONS BETWEEN LINEAR ALKYL BENZENE SULFONATE SURFACTANTS AND WATER HARDNESS IONS I—EFFECT OF WATER HARDNESS ON SURFACTANT SOLUBILITY AND PERFORMANCE

K.L. Matheson and M.F. Cox, Vista Chemical Company, Ponca City, OK

INTERACTIONS BETWEEN LINEAR ALKYL BENZENE SULFONATE SURFACTANTS AND WATER HARDNESS IONS II—REDUCING HARDNESS SENSITIVITY BY THE ADDITION OF MISCELLE PROMOTION AGENTS

M.F. Cox and K.L. Matheson, Vista Chemical Company, Ponca City, OK

INTERACTIONS BETWEEN LINEAR ALKYL BENZENE SULFONATE SURFACTANTS AND WATER HARDNESS IONS III—SOLUBILIZATION AND PERFORMANCE CHARACTERISTICS OF Ca(LAS)₂

K.L. Matheson and M.F. Cox, Vista Chemical Company, Ponca City, OK

SALINITY TOLERANCE ENHANCEMENT IN ANIONIC SURFACTANT SOLUTIONS BY ADDITION OF NONIONIC SURFACTANTS

K. Stellner and J. Scamehorn, University of Oklahoma, Norman, OK

Flavor Chemistry of Fats and Oils I

Chairpersons: W. Nawar, University of Massachusetts, Amherst, MA, and D.B. Min, Ohio State University, Columbus, OH

FLAVOR CHEMISTRY OF FRIED CHICKEN

C-T. Ho and S.S. Chang, Rutgers University, New Brunswick, NJ

EFFECTS OF MINOR COMPONENTS ON THE FLAVOR STABILITY OF SOYBEAN OIL

B.S. Mistry and D.B. Min, Ohio State University, Columbus, OH

FRYING ODORS: SENSORIAL AND PHYSICO-CHEMICAL APPROACHES

A. Prevot, S. Desbordes, O. Morin and F. Mordret, Institut des Corps Gras, Pessac, France

FLAVOR COMPONENTS FROM BUTTEROIL—COMPARISON WITH COMMON FRYING OILS

M. Bradley and W.W. Nawar, University of Massachusetts, Amherst, MA

FLAVOR CHEMISTRY OF FATS AND OILS—PAST, PRESENT AND FUTURE

S.S. Lin, Anderson Clayton Foods, Richardson, TX

COMPARISON OF GAS CHROMATOGRAPHIC METHODS FOR VOLATILE LIPID OXIDATION COMPOUNDS IN SOYBEAN OIL

E.N. Frankel, E. Selke, J.M. Snyder and K. Warner, USDA Northern Regional Research Center, Peoria, IL

FLAVOR CHEMISTRY OF OLIVE OIL

E. Fedeli, Stazione Sperimentale per le Industrie, Milano, Italy

DYNAMIC HEADSPACE GAS CHROMATOGRAPHY/ MASS SPECTROSCOPY TECHNIQUE FOR DETERMINING VOLATILES IN VEGETABLE OILS

D.M. Wyatt, Eastman Chemical Products, Kingsport, TN

QUANTIFICATION OF CARBONYLS PRODUCED DURING DECOMPOSITION OF FATTY ACID HYDROPEROXIDES

B. Saidia and E.G. Hammond, Iowa State University, Ames, IA

Afternoon

Analytical Methods for Protein I

Chairpersons: J. Cherry and R.A. Barford, USDA Eastern Regional Research Center, Philadelphia, PA

OPTIONS AND STRATEGIES WITHIN GEL ELECTROPHORESIS

B.C. Anderlan, National Institutes of Health, Bethesda, MD

Meetings

TWO-DIMENSIONAL GEL (ELECTROPHORETIC SEPARATION OF PROTEINS)

S.M. Basha, Florida A&M University, Tallahassee, FL

IMMUNOCHEMISTRY—THEORY AND APPLICATION

J.N. Neucere, USDA Souther Regional Research Center, New Orleans, LA

LIQUID CHROMATOGRAPHY OF PROTEINS—STATUS AND TRENDS

R.A. Barford, USDA Eastern Regional Research Center, Philadelphia, PA

REVERSED-PHASE HPLC OF CEREAL PROTEINS: METHODS AND APPLICATIONS

J.A. Bietz, USDA Northern Regional Research Center, Peoria, IL

MODERN METHODS USED IN SEQUENCING AND SYNTHESIZING PROTEINS

K.J. Wilson, Applied Biosystems Inc., Foster City, CA

AMINO ACID ANALYSIS: AN ASSESSMENT OF CURRENT TECHNIQUES

R.W. Zumwalt, University of Missouri, Columbia, MO

FLOW-INJECTION ANALYSES—APPLICATIONS TO PROTEIN CHARACTERIZATION AND ANALYSIS

G.Y. Beecher and J.T. Vanderslice, U.S. Department of Agriculture, Beltsville, MD

FOURIER TRANSFORM INFRARED SPECTROSCOPY IN PROTEIN CONFORMATION STUDIES

H. Susi and D.M. Byler, USDA Eastern Regional Research Center, Philadelphia, PA

MONITORING PROTEOLYSIS BY OSMOMETRY—A RAPID METHOD

T.M. Wong, Novo Laboratories Inc., Wilton, CT

C-E. Høy and G. Hølmer, Technical University of Denmark, Lyngby, Denmark

INFLUENCE OF DIETARY (n-3)-FATTY ACIDS ON THE COMPOSITION OF RAT ORGAN PHOSPHOLIPIDS

G. Hølmer, S. Kaasgaard and C-E. Høy, Technical University of Denmark, Lyngby, Denmark

PEROXISOMAL β -OXIDATION IN MALE AND FEMALE RATS FED PARTIALLY HYDROGENATED FISH OIL FOR THREE MONTHS

E.N. Christiansen, University of Oslo, Oslo, Norway, and J. Norseth and M.S. Thomassen, Norwegian Food Research Institute

LIPID AUTOXIDATION IN THE HUMAN RED BLOOD CELL

F.J. Bunick and W.W. Nawar, University of Massachusetts, Amherst, MA

MODIFICATION OF MEMBRANE LIPIDS IN VITAMIN E-DEFICIENT RATS WITH AND WITHOUT CCl₄ ADMINISTRATION

G-S. Wu, R.A. Stein and J.F. Mead, University of California, Los Angeles, CA

POSSIBLE MECHANISM UNDERLYING INTER-INDIVIDUAL VARIABILITY IN THE SERUM CHOLESTEROL RESPONSE TO DIETARY CHOLESTEROL

A.C. Beynen and L.F.M. Van Zutphen, University of Utrecht, Utrecht, The Netherlands, and M.B. Katan, Agricultural University, Wageningen, The Netherlands

COMPARISON OF NUTRITIONAL TRENDS IN TAIWAN VERSUS THE UNITED STATES

L-B. Hau, National Taiwan University, and W.W. Nawar, University of Massachusetts, Amherst, MA

Lipid Metabolism, General

Chairperson: D.M. Klurfeld, The Wistar Institute, Philadelphia, PA

EFFECTS OF n-3 FATTY ACIDS ON EICOSANOIDS: POSSIBLE TISSUE AND SPECIES DIFFERENCES

J.E. Kinsella, B. German, B. Lokesh, G. Bruckner, J. Swanson and M. Black, Cornell University, Ithaca, NY

EFFECTS OF *cis* AND *trans* 18:1 ON LIPOGENESIS IN MICE

B.J. Mulvihill, B. Wilck-Gerow, B.L. Walker, M. Von Weinder, University of Guelph, Guelph, Ontario, Canada

EFFECTS OF DIETARY GEOMETRICAL FATTY ACID ISOMERS ON MITOCHONDRIAL COMPOSITION AND FUNCTION

R. De Schrijver, University of Ghent, Merelbeke, Belgium; O.S. Privett, F.C. Phillips and W.L. Erdahl, The Hormel Institute, University of Minnesota, Austin, MN, and R.W. Anderson, Hennepin County Medical Center, Minneapolis, MN

FATTY ACID COMPOSITIONS OF RAT LIPIDS FOLLOWING INTAKE OF DIETS WITH VARIOUS RATIOS OF *trans* FATTY ACIDS TO LINOLEIC ACID

Human Milk Lipids

Chairpersons: R.G. Jensen, University of Connecticut, Storrs, CT, and J. Bitman, USDA BARC-E, Beltsville, MD

LIPASES IN HUMAN MILK

M. Hamosh, Georgetown University Medical Center, Washington, DC

LIPID COMPOSITION OF BREAST MILK FROM MOTHERS OF TERM AND PRETERM INFANTS

J. Bitman and D.L. Wood, U.S. Department of Agriculture, Beltsville, MD, and N.R. Mehta, P. Hamosh and M. Hamosh, Georgetown University Medical Center, Washington, DC

ABSORPTION OF FATTY ACIDS FROM HUMAN MILK AND FORMULA FED PRETERM INFANTS

M.T. Clandinin, University of Alberta, Edmonton, Alberta, Canada, and J.E. Chappell, University of Toronto, Toronto, Ontario, Canada

COMPARISON OF MILK TRIGLYCERIDES FROM MICE FED *trans* OR CONTROL FAT DIETS

B.B. Teter, L.M. Neira, M. Keeney and J. Sampugna, University of Maryland, College Park, MD

Meetings

TOTAL PHOSPHOLIPID ANALYSIS IN HUMAN MILK WITHOUT ACID DIGESTION

K.E. Hundrieser, R.M. Clark and R.G. Jensen, University of Connecticut, Storrs, CT

ANALYSIS OF TOCOPHEROL IN HUMAN MILK

C.J. Lammi-Keefe, F.M. Verda, A.M. Ferris, R.M. Clark and R.G. Jensen, University of Connecticut, Storrs, CT

LIPIDS IN HUMAN MILK: A REVIEW OF RECENT RESEARCH

R.G. Jensen, R.M. Clark, A.M. Ferris and C.J. Lammi-Keefe, University of Connecticut, Storrs, CT

MATERNAL VARIABLES IN SECRETION OF LIPIDS IN HUMAN MILK

C. Garza, Baylor College of Medicine, Houston, TX

Biological Activities of Oxidized Sterols

Chairperson: L.L. Smith, University of Texas Medical Branch, Galveston, TX

BIOLOGICAL ACTIVITIES OF SOME OXYGENATED STEROLS

N. Ikekawa, Tokyo Institute of Technology, Tokyo, Japan

CYTOTOXICITY AND ATHEROGENICITY OF OXIDIZED CHOLESTEROL

C.B. Taylor, Albany Medical College, Albany, NY, and S-K. Peng, Harbor-UCLA Medical Center, Torrance, CA

COMPARATIVE ATHEROGENIC EFFECTS OF CHOLESTEROL AND CHOLESTEROL OXIDES

N.A. Higley, J.T. Beery, S.L. Taylor, J.W. Porter and J.A. Dziuba, University of Wisconsin, Madison, WI

VARIATIONS OF THE MEMBRANOUS CHOLESTEROL CONTENT ALTER AND CALCIUM INFLUX THROUGH THE CALCIUM-SPECIFIC ENTRY CHANNEL IN HUMAN ERYTHROCYTES

M. Stimpel, L. Neyses, R. Locher, R. Streuli and W. Vetter, University Hospital Zurich, Zurich, Switzerland

RELATION OF CHOLESTEROL OXIDATION PRODUCTS TO ATHEROSCLEROSIS

L.H. Krut, Hospital and University of Witwatersrand, Johannesburg, South Africa

THE EFFECT OF CHOLESTEROL OXIDATION PRODUCTS ON MEMBRANE FUNCTIONS

S-K. Peng, R.J. Morin, S. Sentovich and C.B. Taylor, Harbor-UCLA Medical Center, Torrance, CA

METABOLIC RESPONSES OF THE LAYING HEN TO DIETARY 7-KETOSTEROL, OXIDIZED CHOLESTEROL AND PURE CHOLESTEROL

E.C. Naber, R.E. Vargas, J.B. Allred and M.D. Biggert, Ohio State University, Columbus, OH

Lipids in Food Products

Chairperson: B.R. Johnson, Campbell Soup

Company, Camden, NJ

LIPID-PROTEIN INTERACTIONS AND FAT CRYSTALLIZATION IN WHIPPABLE EMULSIONS

N.M. Barfod and N. Krog, Grindsted Products A/S, Brabrand, Denmark

STEROL COMPOSITION OF CRUDE, REFINED AND BLENDED FATS AND OILS

M.A. Amer, D.B. Kupranycz, F.M. Gharavy and B.E. Baker, McGill University, Ste Anne de Bellevue, Quebec, Canada

PHYSICAL AND CHEMICAL CHARACTERISTICS OF BUTTERFAT FRACTIONS OBTAINED BY A NATURAL CRYSTALLIZATION TECHNIQUE

M.A. Amer, D.B. Kupranycz and B.E. Baker, McGill University, Ste Anne de Bellevue, Quebec, Canada

DETECTION OF ADULTERATED AND MISBRANDED OLIVE OIL PRODUCTS

D. Firestone and J.L. Summers, Food and Drug Administration, Washington, DC, and R.J. Reina and W.S. Adams, FDA, Boston, MA

POSSIBILITIES OF GAS CHROMATOGRAPHY ON POLAR CAPILLARY COLUMNS IN THE TRIGLYCERIDE ANALYSIS OF FATS AND OILS WITH SPECIAL REFERENCE TO CHOCOLATE FATS

E. Geeraert, Jacobs Suchard Ltd., Lebbeke, Belgium, and P. Sandra, State University of Ghent, Ghent, Belgium

CALO (LOW CALORIE) FATS AND OILS AND THEIR FUTURE

R.S. Aires, Bio Techknowledge Inc., New York, NY

Fat and Oil Processing (General) II

Chairperson: F. Luddy, Chemical Biotech Research Inc., Lansdale, PA

PHYSICAL REFINING OF EDIBLE FATS AND OILS: MYTHS AND METHODOLOGIES

L.H. Wiedermann, American Soybean Association, Singapore

PHYSICAL REFINING OF SOYBEAN OIL: A SHELF-LIFE FLAVOR STABILITY STUDY

L.H. Wiedermann, American Soybean Association, Singapore; Y-K. Hung and W.S. Lin, Chia Fha Industry Co. Ltd., Taichung, Taiwan, and P. Yang, American Soybean Association, Taipei, Taiwan

PRACTICAL EXPERIENCE WITH THE CONDITIONING OF SOYA FLAKES

G. Penk, Lurgi GmbH, Frankfurt am Main, West Germany

FEASIBILITY STUDY ON THE PHYSICAL REFINING OF RICE BRAN OIL

L.S. Hwang, R.K. Wong and S.C. Chang, National Taiwan University, Taipei, Taiwan

THE ADVANTAGES OF DEHULLING IN THE PRODUCTION OF MEADOWFOAM OIL

R.L. Lowry and I.J. Tinsley, Oregon State University, Corvallis, OR

Meetings

HIGH OLEIC SUNFLOWER: PHYSICAL AND CHEMICAL CHARACTERISTICS

R.H. Purdy, consultant, Novato, CA

THE EFFECTS OF RELATIVE HUMIDITY AND STORAGE ON CHEMICAL AND MYCOFLORAL CHANGES IN OIL TYPE SUNFLOWER SEED

J.A. Robertson, R.G. Roberts and G.W. Chapman, USDA R.B. Russell Research Center, Athens, GA

CONCLUSIVE TEST FOR AFLATOXIN RESISTANCE IN PEANUTS

T.H. Sanders, P.D. Blankenship, R.J. Cole and K.H. Ashley, USDA National Peanut Research Lab., Dawson, GA, and R.A. Hill, USDA Western Cotton Research Lab.

MEASURING OIL CONTENT OF SUNFLOWERSEED

M.L. Iverson and C.A. Watson, USDA Federal Grain Inspection Service, Grandview, MO

SPECTRUM OF VARIABILITY OF CHARACTERISTICS AND COMPOSITION OF THE OILS FROM DIFFERENT GENETIC VARIETIES OF LINSEED

N. Bajpai, S. Pandey and A.K. Visishtha,* Harcourt Butler Technological Institute, Kanpur, India

Flavor Chemistry of Fats and Oils II

Chairpersons: W. Nawar, University of Massachusetts, Amherst, MA, and D.B. Min, Ohio State University, Columbus, OH

EFFECTS OF FAT QUALITY, STORAGE TEMPERATURE AND TIME, AND HEADSPACE OXYGEN CONTENT OF FAT OXIDATION IN MODEL POWDERED FOOD PRODUCTS

J.D. Manes Jr. and R.J. Knights, Mead Johnson & Company, Evansville, IN, and S.G. Sorensen, Bristol Myers International Group

LIGHT STABILITY OF SOYBEAN OIL TREATED WITH BETA CAROTENE

K. Warner and E.N. Frankel, USDA Northern Regional Research Center, Peoria, IL

FATS, SWEETNESS AND RICHNESS IN FROZEN DESSERTS

M. Knezevich, Gourmet Diet Group, Elmhurst, NY

Wednesday, May 8, 1985

Morning

Plenary Session

1985 Acceptance Address by Recipient of the Supelco AOCS Research Award

Analytical Methods for Protein II

Chairpersons: J. Cherry and R.A. Barford, USDA Eastern Regional Research Center, Philadelphia, PA

LABELED ANTIBODIES AS PROBES FOR HISTOCHEMISTRY AND CYTOCHEMISTRY

J.W. Dieckert, Texas A&M University, and M.C. Dieckert, Texas A&M Research Foundation, College Station, TX

THE USE OF ROBOTICS IN AMINO ACID AND PROTEIN ANALYSIS

W.J. Hurst and R.A. Martin Jr., Hershey Foods Corporation, Hershey, PA

C₁₃ SPECTRA OF PROTEINS BY MAGIC ANGLE SPINNING

G.E. Maciel, Colorado State University, Fort Collins, CO

OVERVIEW OF RAPID ANALYSIS INSTRUMENTS FOR OILSEEDS AND OIL MILL PRODUCTS

J.P. Wagner, J.T. Farnsworth and L.A. Johnson, Texas A&M University, College Station, TX

Special Processes and Oil Sources

Chairperson: I. Wolff, USDA Eastern Regional Research Center, Philadelphia, PA

FAT SPLITTING IN AN IMMOBILIZED LIPASE ENZYME REACTOR

F. Taylor and D.J. O'Brien, USDA Eastern Regional Research Center, Philadelphia, PA

PROCESSING AND PROPERTIES OF SEED OILS OBTAINED BY SUPERCRITICAL CO₂ EXTRACTION AT HIGH TEMPERATURES AND PRESSURES

G.R. List and J.P. Friedrich, USDA Northern Regional Research Center, Peoria, IL

LABORATORY THIN-FILM CONTINUOUS DEODORIZER FOR VEGETABLE OILS

E.D. Bitner and J.P. Friedrich, USDA Northern Regional Research Center, Peoria, IL

IDENTIFICATION OF THE CHEMICAL CHANGES OCCURRING DURING THE TRANSIENT INJECTION OF SELECTED VEGETABLE OILS

T.W. Ryan III, Southwest Research Institute, San Antonio, TX, and M.O. Bagby, USDA Northern Agricultural Energy Center, Peoria, IL

SIMULTANEOUS INTERPENETRATING NETWORKS PREPARED FROM SPECIAL FUNCTIONAL GROUP TRIGLYCERIDE OILS: CASTOR OIL, *Lesquerella palmeri* AND OTHER WILD PLANT OILS

M.A. Linne, L.H. Sperling and J.A. Manson, Lehigh University, Bethlehem, PA (Honored Student Presentation)

Lipids and Cancer I: Brian L. Walker Memorial Symposium

Chairpersons: K.K. Carroll, University of Western Ontario, London, Ontario, Canada, and D. Kritchevsky, The Wistar Institute, Philadelphia

FATS, CALORIES AND CANCER

D. Kritchevsky, M.M. Weber and D.M. Klurfeld, The Wistar Institute, Philadelphia, PA

Meetings

RETINOID INHIBITION OF BREAST CANCER

R.C. Moon, R.G. Mehta and D.L. McCormick,
IIT Research Institute, Chicago, IL

ENHANCEMENT OF MAMMARY TUMORIGENESIS IN RATS FED A DIET HIGH IN LARD

A.E. Rogers, Boston University School of Medicine,
Boston, MA

ROLE OF DIETARY FATS IN PANCREATIC CARCINOGENESIS

B.D. Roebuck, Dartmouth Medical School, Hanover, NH

DIETARY POLYUNSATURATED FAT IN RELATION TO MAMMARY CARCINOGENESIS

K.K. Carroll and L.M. Braden, University of Western
Ontario, London, Ontario, Canada

THE PALM OIL PROCESSING INDUSTRY IN MALAYSIA

M. Maclellan, Palm Oil Research Institute of Malaysia,
Kuala Lumpur, Malaysia

TRENDS IN EDIBLE OIL PROCESSING AND UTILIZATION IN CENTRAL AMERICA

C. Farner, O.S.T.I., Guatemala

TRENDS IN EDIBLE OIL PROCESSING AND UTILIZATION IN ASIA

L.H. Wiedermann, American Soybean Association,
Singapore

NRRC RESEARCH DEVELOPMENT OF INTEREST TO EDIBLE OIL PROCESSORS

T.L. Mounts, USDA Northern Regional Research Center,
Peoria, IL

Chemistry Biosynthesis and Function of Sterols I: H.W. Kircher Memorial Symposium

Chairpersons: W.D. Nes, U.S. Department of
Agriculture, Albany, CA, and L.W. Parks,
Oregon State University, Corvallis, OR

OXYSTEROLS: CHEMICAL SYNTHESIS, BIOSYNTHESIS AND BIOLOGICAL ACTIVITIES

E.J. Parish, Auburn University, Auburn, AL

THE SQUALENE-2, 3-EPOXIDE CYCLASE AS A MODEL FOR THE DEVELOPMENT OF NEW DRUGS

L. Cattel, L. Delprino, G. Balliano, F. Viola and
M. Ceruti, Università di Torino, Torino, Italy, and
P. Benveniste, Institut Botanique University,
Strasbourg, France

STEROLS AND TRITERPENE ALCOHOLS OF *Cucurbitaceae* PLANTS

T. Itoh, T. Matsumoto, Nihon University, Tokyo, Japan;
S. Thakur, University of Burdwan, and F.U. Rosenstein,
University of Arizona

STEROL COMPOSITION DURING THE LIFE CYCLE OF THE SOYBEAN AND THE SQUASH

G.W. Patterson, G.P. Fenner and P.M. Koines,
University of Maryland, College Park, MD

DESIGN OF HIGH ENERGY INTERMEDIATE ANALOGS TO STUDY STEROL BIOSYNTHESIS IN HIGHER PLANTS

P. Benveniste, Institut de Botanique, Strasbourg Cédex,
France; A. Rahier, M. Taton, P. Nave, A.S. Narula and
L. Cattel

Trends in Edible Oil Processing and Consumption in Various Parts of the World I

Chairperson: P. Kalustian, consultant,
Boonton, NJ

SOYBEAN OIL PROCESSING AND UTILIZATION IN EUROPE

R. Leysen, American Soybean Association, Brussels,
Belgium

Surfactants and Detergents III: Open Forum— Current and Future Perspectives

Chairperson: T. Matson, Vista Chemical
Company, Ponca City, OK

Titles and speakers not available at press time.

Afternoon

Hydrogenation, Dehydrogenation and Inter- esterification

Chairperson: L. Silbert, USDA Eastern Regional
Research Center, Philadelphia, PA

FATS AND OILS HYDROGENATION CATALYST PERFORMANCE EVALUATION

D.V. Okonek, T.J. Sullivan and O. Nebesh, Harshaw/
Filtrol Partnership, Beachwood, OH

HYDROGENATION OF LINOLEATE I: THE RATE OF FORMATION OF *trans* UNSATURATION

R.R. Allen, Food Industry Research and Development
Institute, Taiwan

HYDROGENATION OF LINOLEATE II: POSITIONAL AND GEOMETRICAL ISOMERS

R.R. Allen and D.Y. Chu,* Food Industry Research
and Development Institute, Taiwan, and J.E. Covey Jr.
and D. See, Anderson Clayton Foods, Richardson, TX

POSITIONAL ISOMERS OF OCTADECENOIC ACIDS IN THE HYDROGENATED PRODUCTS OF CANOLA OIL

S.S. Koseoglu, The Cambrian Engineering Group Ltd.,
Mississauga, Ontario, Canada, and L.L. Diosady,
L.J. Rubin and W.F. Graydon, University of Toronto,
Toronto, Ontario, Canada

CONTINUOUS ULTRASONIC HYDROGENATION— OPERATING CONDITIONS AND OIL QUALITY

K.J. Moulton Sr., S. Koritala, K. Warner and
E.N. Frankel, USDA Northern Regional Research
Center, Peoria, IL

LOW PRESSURE HYDROGENATION OF CASTOR OIL

R.K. Trivedi and A.K. Vasishta,* Harcourt Butler
Technological Institute, Kanpur, India

Meetings

CATALYTIC ISOMERIZATION OF METHYL LINOLEATE—KINETICS, MATHEMATICAL MODELING AND REGENERATION STUDIES

C.S. Narasimhan, D. Mukesh, V.M. Deshpande and R.G. Gadkari, Alchemie Research Center Private Ltd., Maharashtra, India

CASTOR OIL DEHYDRATION WITH COPPER SULFATE CATALYST

T.A. Khan, R.K. Trivedi and A.K. Vasishtha,* Harcourt Butler Technological Institute, Kanpur, India

DIRECTED INTERESTERIFICATION OF *Shorea robusta* FAT

M. Bajpai and A.K. Vasishtha,* Harcourt Butler Technological Institute, Kanpur, India

DIETARY FAT MODULATION OF LIPOPROTEIN FLUIDITY IN HUMAN SUBJECTS AND IN LABORATORY ANIMALS

E. Berlin, USDA Human Nutrition Research Center, Beltsville, MD

WHOLE BODY OXIDATION OF DIETARY FATTY ACIDS

M.T. Clandinin, University of Alberta, Edmonton, Alberta, Canada; P.J.H. Jones, University of Toronto, Toronto, Ontario, Canada, and P.B. Pencharz, The Hospital for Sick Children, Toronto, Ontario, Canada

OXIDATION OF OLEIC AND ELAIDIC ACIDS BY RAT AND HUMAN HEART HOMOGENATES

A.C. Lanser, E.A. Emken and J.B. Ohlrogge, USDA Northern Regional Research Center, Peoria, IL

BROMINATED FATTY ACIDS, THEIR OCCURRENCE AND MODE OF ACTION IN MAMMALIAN SYSTEMS

I.J. Tinsley and R.R. Lowry, Oregon State University, Corvallis, OR

Biochemistry of Fatty Acids

Chairperson: E.A. Emken, USDA Northern Regional Research Center, Peoria, IL

USE OF DEUTERIUM-LABELED FATS TO FOLLOW INCORPORATION AND TURNOVER OF *trans* AND *cis*-11-OCTADECENOIC ACID ISOMERS IN HUMAN PLASMA LIPIDS

E.A. Emken, W.K. Rohwedder, W.J. DeJarlais and R.O. Adlof, USDA Northern Regional Research Center, Peoria, IL, and R.M. Gulley, St. Francis Medical Center, Peoria, IL

Lipids and Cancer II: Brian L. Walker Memorial Symposium

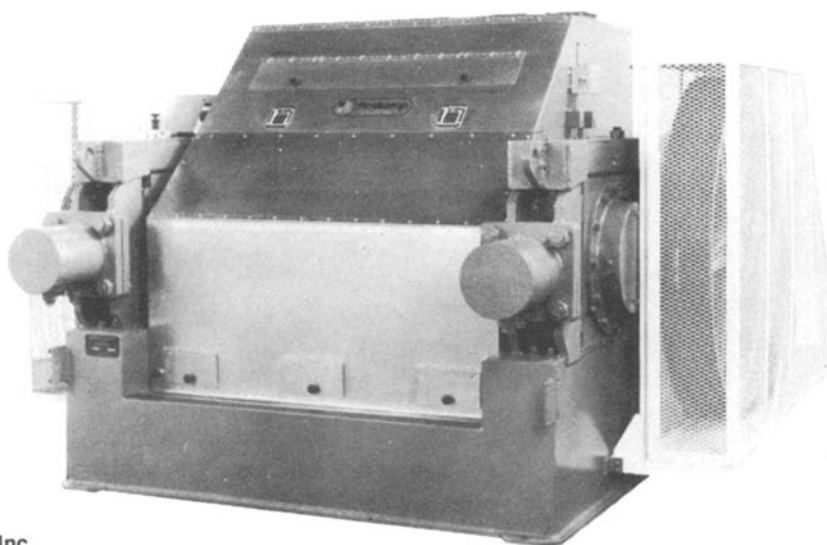
Chairpersons: K.K. Carroll, University of Western Ontario, London, Ontario, Canada, and D. Kritchevsky, The Wistar Institute, Philadelphia, PA

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Meetings

HIGH FAT DIET AND COLORECTAL CANCER IN RATS

N.D. Nigro and A. Bull, Wayne State University,
Detroit, MI

EFFECT OF DIETARY COMPONENTS ON THE PATHO- BIOLOGY OF COLONIC EPITHELIUM: POSSIBLE RELATIONSHIP WITH COLON TUMORIGENESIS

R.P. Bird, Ludwig Institute for Cancer Research and
University of Toronto, Toronto, Ontario, Canada

COMPARISON OF LIPIDS FROM LIVER AND HEPATOMA SUBCELLULAR MEMBRANES

R. Wood, G.C. Upreti and R.J. deAntueno, Texas A&M
University, College Station, TX

INHIBITORY EFFECT OF FUMARIC ACID ON 3-METHYL-4'-(DIMETHYLAMINO)-AZOBENZENE- INDUCED HEPATOCARCINOGENESIS IN RATS

K. Kuroda, Chiba University, Chiba, Japan

ETHER-LIPIDS: ANTINEOPLASTIC ACTIVITY IN RELATION TO STRUCTURE

W.E. Berdel, U. Fink, H.D. Schick, M. Fromm,
A. Reichert and J. Rastetter, Technical University,
Munich, West Germany

Chemistry Biosynthesis and Function of Sterols II: H.W. Kircher Memorial Symposium

Chairpersons: W.D. Nes, U.S. Department of
Agriculture, Albany, CA, and L.W. Parks,
Oregon State University, Corvallis, OR

OBSERVATIONS ON THE REGULATION OF PLANT STEROL BIOSYNTHESIS

L.J. Goad, University of Liverpool, Liverpool, England

A COMPARISON OF STEROL BIOSYNTHESIS IN PATHOGENIC FUNGI AND THEIR HOST PLANTS

R.C. Heupel and W.D. Nes, U.S. Department of
Agriculture, Albany, CA

THE FATE OF RADIOLABELED 22,25-DIDEOXYEC- DYSONE AND ECDYSONE IN ADULT TOBACCO HORNWORM OVARIES

M.J. Thompson and J.A. Svoboda, U.S. Department
of Agriculture, Beltsville, MD

HYDROXYMETHYLGLUTARYL-CoA REDUCTASE, A KEY ENZYME IN PHYTOSTEROL BIOSYNTHESIS

T.J. Bach, University of Karlsruhe, Karlsruhe,
West Germany

PHYSIOLOGICAL ROLES FOR STEROLS IN YEAST

L.W. Parks and R.J. Rodriguez, Oregon State University,
Corvallis, OR

THE ROLE OF PHYTOSTEROLS IN HOST PLANT UTILIZATION BY CACTOPHILIC *Drosophila*

J.C. Fogleman, University of Denver, Denver, CO, and
S.M. Duperret and H.W. Kircher, University of Arizona

STEROL-POLAR LIPID INTERACTIONS AND THE DOMAIN STRUCTURE OF FUNGAL PLASMA MEMBRANES

C.E. Martin, Rutgers University, New Brunswick, NJ

SELECTIVE STEROL TRANSFER IN THE HONEY BEE: ITS SIGNIFICANCE AND RELATIONSHIP TO OTHER HYMENOPTERA

J.A. Svoboda, E.W. Herbert Jr., M.J. Thompson and
M.F. Feldlaufer, U.S. Department of Agriculture,
Beltsville, MD

THE INFLUENCE OF OXYGEN ON THE UPTAKE OF STEROLS BY *Saccharomyces cerevisiae*

W.R. Nes, W.J. Pinto and I.C. Dhanuka, Drexel
University, Philadelphia, PA

Trends in Edible Oil Processing and Consumption in Various Parts of the World II

Chairperson: P. Kalastian, consultant,
Boonton, NJ

INFLUENCES ON THE EDIBLE OIL SUPPLY AND DEMAND PATTERN IN CANADA 1960-1985

J. Ward, Nabisco Brands Ltd., Mississauga, Ontario,
Canada

THE PHILIPPINE COCONUT INDUSTRY

R.H. Purdy, consultant, Novato, CA, and N.N. Coronel,
San Pablo Manufacturing Corp.

PROCESSING SOYBEAN OIL IN THE PEOPLE'S REPUBLIC OF CHINA

J.B. Woerfel, consultant, Clarksdale, MS

TRENDS IN EDIBLE OIL CONSUMPTION AND PROCESSING IN CANADA

M. Pickard, R. Wiggins and D. Loewen, CSP Foods Ltd.,
Dundas, Ontario, Canada

DYNAMICS OF SUPPLY AND DEMAND FOR OILS AND FATS

K.G. Berger, Palm Oil Research Institute of Malaysia,
Kuala Lumpur, Malaysia

PHYSICAL REFINING OF SUNFLOWER, MAIZE AND SOYA OIL—PRACTICAL RESULTS

A. Balicer and Z. Leibovitz, H.L.S. Ltd., and
C. Ruckenstein,* USOP (1974) Ltd., Petah Tikva, Israel

Olefin Sulfonates—Versatile Surfactants for Household and Industry

Chairperson: H. Stupel, Shell, Houston, TX

DEVELOPMENT OF AOS FOR HOUSEHOLD PRODUCTS IN JAPAN

O. Okumura, Lion Corporation, Tokyo, Japan

OLEFIN SULFONATES IN CRUDE OIL PRODUCTION

D.H. Scharer, Shell Chemical Co., Houston, TX

ANALYSIS OF ALPHA OLEFIN SULFONATES VIA QUANTITATIVE CARBON-13 NMR

P.P. Gentempo, M.K. Dickson and K.F. Guin,* Shell
Development Company, Houston, TX

Meetings

SAFETY IN USE OF AOS MATERIALS IN JAPAN

K. Oba, A. Mori and T. Nagai, Lion Corporation,
Odawara-City, Japan

ALPHA OLEFIN SULFONATE—AN EXTREMELY VERSATILE SURFACTANT FOR THE PERSONAL CARE INDUSTRY

R.E. Reeve, Minnetonka Inc., Chaska, MN

A MECHANISTIC APPROACH TO THE THERMAL DEGRADATION OF ALPHA OLEFIN SULFONATES

P.C. Hu, R.O. Johannessen and M.E. Tuvell, Ethyl
Technical Center, New Orleans, LA

SKIN SENSITIZATION POTENTIAL OF ALPHA OLEFIN SULFONATE AND A PROTOTYPE DISHWASHING DETERGENT CONTAINING AOS

P.H.S. Bay and P.J. Danneman, The Procter & Gamble
Co., Cincinnati, OH

New and Improved Methods for the Analysis of Lipids

Chairperson: D.P. Schwartz, USDA Eastern
Regional Research Center, Philadelphia, PA

AN EVALUATION OF CURRENT STRATEGIES FOR CONTROLLING THE HYDROLYSIS OF ENDOGENOUS LIPIDS IN CELL-FREE PREPARATIONS FROM PLANTS

R.A. Moreau, USDA Eastern Regional Research Center,
Philadelphia, PA

APPLICATION OF THE ION TRAP DETECTOR TO FATTY ACID ANALYSES

R.B. Ackman and W.N. Ratnayake, Technical University
of Nova Scotia, Halifax, Nova Scotia, Canada

CHROMATOGRAPHIC METHODS FOR THE ANALYSIS OF OXIDIZED LIPIDS

E.N. Frankel, USDA Northern Regional Research
Center, Peoria, IL

METHODS IN THE ISOLATION AND ANALYSIS OF MILK FAT GLOBULES

S. Patton and G.E. Huston, University of California
(San Diego), La Jolla, CA

STEREOSPECIFIC ANALYSIS OF SYNTHETIC AND NATURALLY OCCURRING FATTY ACID ESTERS OF CHLOROPROPANEDIOL

J.J. Myher and A. Kuksis, University of Toronto,
Toronto, Ontario, Canada, and J. Cerbulis, USDA
Eastern Regional Research Center, Philadelphia, PA

ANALYSIS OF LIPID STRUCTURE BY IN SITU REACTIONS ON TLC

J.D. Touchstone, S.S. Levin, J. Alvarez and S. Kleinbart,
University of Pennsylvania, Philadelphia, PA

AN IMPROVED METHOD FOR OBTAINING AND QUANTITATING THE UNSAPONIFIABLE MATTER OF FATS AND OILS

D.P. Schwartz, USDA Eastern Regional Research Center,
Philadelphia, PA

RAPID ESTIMATION OF GLUCOSINOLATES BY GAS

LIQUID CHROMATOGRAPHY OF CARBONYL SULFIDE

R.R. Lowry and I.J. Tinsley, Oregon State University,
Corvallis, OR

A SIMPLE METHOD FOR QUANTITATIVE ISOLATION OF FREE FATTY ACIDS FROM FATS AND OILS

D.P. Schwartz, USDA Eastern Regional Research Center,
Philadelphia, PA, and D.G. Gadjeva, Meat Research
Institute, Sofia, Bulgaria

Poster Presentations

Chairperson: F. Scholnick, USDA Eastern
Regional Research Center, Philadelphia, PA

METABOLISM OF STEROLS BY *Saccharomyces cerevisiae*

W.J. Pinto and W.R. Nes, Drexel University,
Philadelphia, PA

STEROLS OF THE FAMILY *Cucurbitaceae*—AN EVOLUTIONARY RECAPITULATION

V.K. Garg and W.R. Nes, Drexel University,
Philadelphia, PA

COMPARISON OF HEART LIPIDS ISOLATED FROM MICE FED DIETS CONTAINING MARGARINE OR CONTROL FAT

J. Kerr, M. Keeney and J. Sampugna, University
of Maryland, College Park, MD

MODIFICATION OF MOUSE LIVER MICROSOMAL MEMBRANES BY DIETARY *trans* FATTY ACIDS: CHANGES IN MONOENOIC FATTY ACID COMPOSITION

M.G. Enig, M. Keeney and J. Sampugna, University
of Maryland, College Park, MD

CHOLESTEROL OXIDES I: ISOLATION AND DETERMINATION OF SOME CHOLESTEROL OXIDATION PRODUCTS

G. Maerker and J. Unruh Jr.,* USDA Eastern Regional
Research Center, Philadelphia, PA

CHOLESTEROL OXIDES II: ANALYSIS OF THE 5,6-EPOXIDES DURING CHOLESTEROL OXIDATION IN AN AQUEOUS DISPERSION

G. Marker and F.J. Bunick,* USDA Eastern Regional
Research Center, Philadelphia, PA

IMPROVING THE QUALITY OF USED DEEP-FRYING FATS

H.F. Al-Shaikh, J. Mancini-Filho and L.M. Smith,*
University of California, Davis, CA

COMPARISONS OF PLATELET LIPIDS ISOLATED FROM MICE FED DIETS CONTAINING MARGARINE OR CONTROL FATS

L.D. Kurfess, M. Keeney and J. Sampugna, University
of Maryland, College Park, MD

POTENCY OF DIETARY SOY LECITHIN AND SUBFRACTIONS IN GROWTH, LIVER STATUS AND COAT QUALITY OF THE GERBIL

T.R. Watkins and E. Caetano, City University
of New York, New York, NY

Meetings

THE RELATIVE LEVEL OF CHOLESTEROL TO PHOSPHATIDYLCHOLINE IS INCREASED IN RED BLOOD CELL LIPIDS OF RATS DUE TO THE DIETARY EXCLUSION OF LINOLEATE

G. Rao, G. Lew and E.C. Larkin, Veterans Administration Medical Center, Martinez, CA

AN IMPROVED METHOD FOR QUANTITATION OF FREE FATTY ACIDS IN CREAM LIPOLYSATES

L.G. Lambert, C.L. Wolf, J.D. Bernstein and L.H. Posorske, Novo Laboratories Inc., Wilton, CT, and R.G. Jensen, University of Connecticut, Storrs, CT

THE CATALYSIS OF LINOLEATE OXIDATION BY SOLUBLE CHICKEN MUSCLE PROTEINS

E.A. Decker and E.G. Schanus, Washington State University, Pullman, WA

CONCLUSIVE TEST FOR AFLATOXIN RESISTANCE IN PEANUTS

T.H. Sanders, P.D. Blakenship, R.J. Cole and K.H. Ashley, USDA National Peanut Research Lab., Dawson, GA, and R.A. Hill, USDA Western Cotton Research Lab.

MODEL FOR PLASMA LOXEN OXIDATION: OXIDATION OF LONG-CHAIN ALK-1-ENYL ETHERS IN THE PRESENCE OF ETHYL LINOLEATE

W.N. Marmer, E. Nungesser* and T.A. Foglia, USDA Eastern Regional Research Center, Philadelphia, PA

PHOSPHOLIPID AND FATTY ACID COMPOSITIONS OF PLATELETS FROM HORSE, PIG, RAT AND HUMAN SUBJECTS

B.J. Holub and T. Wilkinson, University of Guelph, Guelph, Ontario, Canada

QUALITY CHARACTERISTICS ASSOCIATED WITH THE SEED COAT COLOR OF CANOLA

J.K. Daun and D.R. DeClercq, Agriculture Canada Grain Research Laboratory, Winnipeg, Manitoba, Canada

BROADENED MESOPHASES IN 19-NORCHOLESTERYL ESTERS

W. Sucrow and S. Howard, University of Paderborn, Paderborn, Germany

SEQUENCING OF STEROL BIOSYNTHESIS IN *Saprolegnia ferax*

P.H. Le and W.D. Nes, USDA Western Regional Research Center, Albany, CA, and E.J. Parish, Auburn University, Auburn, AL

STUDY ON THE HALF-LIFE OF THE TERMINAL CATABOLITE OF E PROSTAGLANDINS IN STORED HUMAN URINE

A. Ferretti, USDA Human Nutrition Research Center, Beltsville, MD

WIND-DRIVEN *Aspergillus flavus* INOCULATION OF COTTON BOLLS IN ARIZONA

L.S. Lee, USDA Southern Regional Research Center, New Orleans, LA; L.V. Lee Jr., Professional Maintenance, New Orleans, LA, and T.E. Russell, University of Arizona, Phoenix, AZ

FORMATION OF AMMONIA DEGRADATION PRODUCTS OF AFLATOXIN B₁ IN THE ABSENCE AND PRESENCE OF COTTONSEED MEAL

L.S. Lee, M.G. Legendre and S.P. Koltun, USDA Southern Regional Research Center, New Orleans, LA

EFFECT OF EXPERIMENTAL DIABETES ON THE OUTFLOWS OF PROSTAGLANDINS FROM PERFUSED RAT MESENTERIC VASCULAR BED

K. Fujii, Y-S. Huang, M.S. Manku and D.R. Horrobin, Efamol Research Institute, Kentsville, Nova Scotia, Canada

LIPID COMPOSITION OF CHICKPEA CULTIVARS

F.W. Sosulski, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, and H.M. Gadan, University of Baghdad

Thursday, May 9, 1985

Morning

Protein Quality

Chairperson: R.D. Phillips, University of Georgia, Experiment, GA

EFFECTS OF GENETIC BACKGROUND AND DIETARY CONSTITUENTS ON AMINO ACID REQUIREMENTS

H. Fisher, Rutgers University, New Brunswick, NJ

PROTEIN DIGESTION, ABSORPTION OF PEPTIDES AND AMINO ACIDS

S.A. Adibi, University of Pittsburgh School of Medicine, Pittsburgh, PA

APPROACHES TO PROTEIN QUALITY EVALUATION USING AMINO ACID DATA

C.E. Bodwell, U.S. Department of Agriculture, Beltsville, MD

WHOLE-BODY NITROGEN DETERMINATION USING PROMPT NEUTRON ACTIVATION ANALYSIS

S.H. Cohn, Brookhaven National Laboratory, Upton, NY

USE OF INDICATOR AMINO ACIDS TO DETERMINE AMINO ACID REQUIREMENTS

H.S. Bayley, University of Guelph, Guelph, Ontario, Canada

PROTEIN BIOUTILIZATION AS A FACTOR IN DETERMINING FOOD PROTEIN QUALITY

C. Kies, University of Nebraska, Lincoln, NE

NUTRITION IN DISEASE STATES

L.C. Crosby

High Pressure Liquid Chromatography of Proteins

Chairperson: L.A. Witting, Supelco Inc., Bellefonte, PA

REVIEW OF PROTEIN SEPARATION BY REVERSED-PHASE LIQUID CHROMATOGRAPHY

A.P. Goldberg, E.I. du Pont de Nemours & Co., Wilmington, DE

HYDROPHOBIC INTERACTION HPLC: A REVIEW

S.C. Goheen, Bio-Rad Laboratories, Richmond, CA

Meetings

ANALYSIS OF APOPROTEIN OF SERUM LIPO-PROTEIN BY HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

I. Hara, Toyo Soda Mfg Co., Ayaseshe, Japan, and M. Okazaki, Tokyo Medical and Dental University, Chiva, Japan

Physical and Organic Aspects of Fatty Acids and Derivatives

Chairperson: F. Bunick, USDA Eastern Regional Research Center, Philadelphia, PA

EFFECTS OF IONIZING RADIATION ON LIPIDS IN MONOLAYERS

L.B. Hau and W.W. Nawar, University of Massachusetts, Amherst, MA

PHASE TRANSFORMATION AND CRYSTALLIZATION BEHAVIORS OF NEW POLYMORPHS OF ULTRA-PURE OLEIC ACID

M. Suzuki and T. Ogaki, Nippon Oil & Fats Co., Amagasaki-City, Japan, and K. Sato, Hiroshima University, Hiroshima, Japan

HIGH RESOLUTION PULSED NMR IN THE STUDY OF FATTY AMINE REACTIONS

E.H. Fairchild and F.E. Friedli, Sherex Chemical Co. Inc., Dublin, OH

REACTION OF FATTY ACIDS WITH 3,3' IMINOBIS-PROPYLAMINE

R.G. Bistline Jr., W.M. Linfield, W.B. Wise and P.E. Pfeffer, USDA Eastern Regional Research Center, Philadelphia, PA

TRANSESTERIFICATION KINETICS OF SOYBEAN OIL

B. Freedman, R.O. Butterfield and E.H. Pryde, USDA Northern Regional Research Center, Peoria, IL

PREPARATION OF METHYL 8_c,11_c-OCTADECADI-ENOATE-17,17,18,18-d₄ AND METHYL 8_c,11_c,14_c-OCTADECATRIENOATE-17,17,18,18-d₄

R.O. Adlof and E.A. Emken, USDA Northern Regional Research Center, Peoria, IL

SYNTHESES OF DEUTERATED METHYL 9,15-OCTADECADIENOATE AND METHYL 9,12,15-OCTADECATRIENOATE GEOMETRIC ISOMERS

H. Rakoff, USDA Northern Regional Research Center, Peoria, IL

QUANTITATION IN THE ANALYSIS OF TRANSESTERIFIED VEGETABLE OILS BY CAPILLARY GAS CHROMATOGRAPHY

B. Freedman and E.H. Pryde, USDA Northern Regional Research Center, Peoria, IL, and W.F. Kwolek, retired

ANALYSIS OF THE FATS AND FATTY COMPONENTS OF NON-DAIRY IMITATION PRODUCTS

M.A. Amer, McGill University, Ste Anne de Bellevue, Quebec, Canada, and W.J. Mullin, Agriculture Canada, Ottawa, Ontario, Canada

ADDITION OF FAT TO DAIRY CATTLE RATIONS

D. Sklan, Medical College of Pennsylvania, Philadelphia, PA, and W. Chalupa and D.S. Kronfeld, University of Pennsylvania, Philadelphia, PA

COORDINATION OF PLANT PIGMENTS BY NATIVE AND MODIFIED SOYBEAN TYPE-2 LIPOXYGENASE

B.P. Klein, University of Illinois, Urbana, IL, and B. Cohen, S. Grossman and A. Pinsky, Bar-Ilan University, Ramat-Gan, Israel

Gas Chromatography in the Measurement of Food Quality

Chairpersons: H. Dupuy and A.J. St. Angelo, USDA Southern Regional Research Center, New Orleans, LA

ANALYSIS OF TRACE AMOUNTS OF GEOSMIN IN WATER

H.P. Dupuy and G.J. Flick, Virginia Polytechnic Institute and State University, and A.J. St. Angelo and R.L. Ory, USDA Southern Regional Research Center, New Orleans, LA

EVALUATION OF EDIBLE OIL ADDITIVES BY VOLATILE PROFILE ANALYSIS

J.L. Gensic, Central Soya Co. Inc., Fort Wayne, IN

VOLATILE FLAVOR COMPONENTS IN PASTEURIZED SEAFOODS

S.S. Williams, G.M. Rodriguez, C.R. Hackney, C.A.O. Pantoja, S.L. Biede and D.L. Gerdes, Louisiana State University, Baton Rouge, LA

A RAPID METHOD FOR DETERMINING RESIDUES OF FUMIGANTS IN FOODSTUFFS WITHOUT SAMPLE PREPARATION

E. Baptiste and J.H. Ford, USDA National Monitoring and Residue Analysis Laboratory, Gulfport, MS

SOME FACTORS IN THE DIRECT DETERMINATION OF VOLATILE PROFILE BY GAS LIQUID CHROMATOGRAPHY TO MEASURE PEANUT QUALITY

N.V. Lovegren, USDA Southern Regional Research Center, New Orleans, LA

APPLICATIONS OF HEADSPACE GAS CHROMATOGRAPHY TO FOODS AND INGREDIENTS

E.L. Anderson and T.W. Gaylord, Kellogg Company, Battle Creek, MI

DIRECT GAS CHROMATOGRAPHIC ANALYSIS OF FLAVORS IN BROWN SUGARS AND MOLASSES

M.A. Godshall, Sugar Processing Research Inc.

SAMPLING TECHNIQUES FOR ENHANCEMENT OF FOOD FLAVOR COMPONENT YIELD IN DIRECT GAS CHROMATOGRAPHY

J.R. Vercellotti, V-Labs Inc., Covington, LA

General

Chairperson: P. Sonnet, USDA Eastern Regional Research Center, Philadelphia, PA

Meetings

THE USE OF DIRECT GAS CHROMATOGRAPHY TO MONITOR FRUIT QUALITY

S.L. Biede, R. Fuenmayor and N. Saker, Louisiana Agricultural Experiment Station, Baton Rouge, LA

Surfactants and Detergents IV: Dispersions

Chairperson: F.S. Micale, Lehigh University, Bethlehem, PA

THE EFFECT OF CARBOXYLIC ACID ON 2-ETHYL HEXYL ACRYLATE AND STYRENE LATEX PARTICLES

F.V. Loncar, M.S. El Aasser and J.W. Vanderhoff, Lehigh University, Bethlehem, PA

ELECTROKINETIC PROPERTIES OF POLYMER COLLOIDS IN AQUEOUS AND NON-AQUEOUS MEDIA

F.S. Micale, C.M. Ma, R.V. Mann, R.S. Ells and B. Baumart, Lehigh University, Bethlehem, PA

Social events

Organizers of the 1985 AOCS Annual Meeting in Philadelphia have scheduled a half dozen social events, some of them optional, during the meeting.

All persons who register for the week-long technical program will receive tickets to the opening mixer, to be held 6:30 to 8:30 p.m. Sunday, May 5, and breakfast sessions scheduled on Monday, May 6, and Wednesday, May 8. Spouses' program registrants will receive tickets to the opening mixer. The spouses' program will include two one-day tours (Monday, May 5, and Tuesday, May 6), but individual tickets for either tour will be available for purchase by anyone attending the meeting.

The optional social events this year will be the First Annual Fat People's Fun Run (or Walk); trips to an Atlantic City, New Jersey, casino hotel (Tuesday evening, May 7, and Thursday afternoon, May 8); and the annual meeting banquet (Wednesday evening, May 7).

Registrants from overseas and persons attending their first AOCS national meeting will receive an invitation to a continental breakfast to be held Tuesday morning. AOCS officers will attend to visit with attendees and to answer questions. Details will be provided in the registration packet of those persons eligible to attend.

Here are brief descriptions of each of the non-breakfast events:

Sunday evening mixer. Meet your fellow registrants and guests at a reception to be held at the Franklin Institute Science Museum, reserved for our private use. As you enter, you will be greeted by Ben Franklin "in person." Under his memorial, enjoy h rs d'oeuvres, cheese and your favorite beverages. Wander through the museum, enjoy the working exhibits, climb through its famous human heart and listen to electronically synthesized music in the physics gallery. The mixer is scheduled from 6:30 to 8:30 p.m. The Franklin Institute is located on the west side of Logan Circle, a quarter mile from the Wyndham Franklin Plaza Hotel and a few blocks north of the Philadelphia Centre Hotel and Center City Holiday Inn. Shuttle bus service will be available for those who do not care to walk. Admission is by ticket included in the general and spouses' registration.

1st Annual Fat People's Fun Run. At 6 p.m. Monday, meet at the Wyndham Franklin Plaza Hotel, then warm up with a run up the Benjamin Franklin Parkway to the Philadelphia Museum of Art. From the museum, walk, jog or run the 5 kilometer course along the East River Drive through beautiful Fairmount Park, past the venerable Boat-house Row and along the bank of the Schuylkill. Return to

the Museum and finish with a Rocky-style climb of the Museum's steps. Registration for this supervised event will be \$8; prizes will be awarded to the winners, and tee shirts to early registrants.

Atlantic City casino trips. Two bus trips are planned to one of Atlantic City's new casino hotels. You'll have sufficient time to have dinner, stroll the Boardwalk, perhaps see a show and, of course, try your luck at blackjack, roulette, craps, baccarat, the wheel and the slot machines. One trip will leave from the Wyndham Franklin Plaza Hotel at 5:30 p.m. Tuesday and the other at 1 p.m. Thursday. Leave sufficient time in your schedule to allow for the 2½-hour total travel time and four to six hours in Atlantic City. There is a minimal fee for the trip (\$5), but the casino hotels typically provide you with at least \$10 in quarters as well as other not-yet-specified premiums.

Wednesday evening banquet and show. Back in the late 1950's, Mary and her friends from South Philly would regularly take the el to 46th and Market Streets to join the crowd at Dick Clark's American Bandstand. Guest stars at that TV program often were her own neighbors—Frankie Avalon, Fabian, Bobby Rydell, Fats Domino, James Darren, Chubbie Checker, the Dovells, the Drifters. That musical era will be recreated for you at the AOCS banquet by the Fabulous Greaseband. Plan to enjoy a sumptuous dinner served at the Wyndham Franklin Plaza Hotel. Then stay for the whole evening to reminisce and even dance to the Bristol Stomp, the Mashed Potato, the Twist. Because attendance at the banquet now is optional, we urge you to purchase tickets at the reduced price of \$25 at the time you pre-register for the meeting; tickets bought on-site will cost \$35.

Spouses' program tours. Both tours for the Spouses' Program are open to other registrants at \$30 per tour.

From AOCS —

Proceedings of the symposium on

HIGH DENSITY LIPOPROTEINS (HDL)

- I. Structure, Function and Analysis
- II. Clinical, Epidemiological and Metabolic Aspects

PRICE: \$10 for AOCS members; \$15 for nonmembers

Meetings

New procedure for banquet tickets

Philadelphia meeting registrants must purchase banquet tickets separately, unlike past years when the cost of tickets was included in technical program and spouses' program registration fees.

Persons who pre-register for the meeting may buy tickets at \$25 each; persons who buy tickets after arriving in Philadelphia will pay \$35 each.

The decision to separate the cost of banquet tickets from registration fees was made to try to keep registration fees as low as possible. In the past, some persons who registered for the meeting were unable to attend the banquet, and thus wound up paying for a social event they couldn't attend.

Seating reservations will be handled as at recent AOCS meetings. Persons who have paid for tickets will receive an exchange coupon. The coupon is exchanged for a banquet ticket when the individual makes a seating reservation at a specific table.

museum; Christ Church and the Betsy Ross House. Lunch will be included at one of Philadelphia's finer restaurants.

On Tuesday we will travel west to Longwood Gardens, one of the outstanding display gardens in America. Longwood Gardens, once a du Pont estate, features an Italian water garden of fountains and pools, a breathtaking Main Conservatory devoted to year-round floral displays of indescribable beauty, and a magnificent Main Fountain Garden, modeled on gardens of France and Italy. Following a leisurely luncheon at the charming Mendenhall Inn, we will visit the Franklin Mint, the world's largest private mint. Our tour will include the Hall of Presidents and the Gallery of Great Americans. We will learn what goes into the making of a "collection" and delight in this unusual art form.

Wednesday morning and afternoon are at our leisure to shop, visit one of the city's numerous museums, or simply relax. The traditional Wednesday banquet is not included in the Spouses' registration fee, but tickets are available at a substantial discount (\$25) with preregistration. We hope you will join us for this event, because a fabulous evening of dining and entertainment has been planned.

Placement Center

The 13th AOCS Placement Center will be conducted during the annual meeting to be held May 5-9, 1985, in the Franklin Plaza Hotel, Philadelphia, Pennsylvania.

The center is designed to bring together employers and job applicants in the fields of fats, oils, lipids and other areas served by AOCS. The center will be open briefly Sunday afternoon, May 5, for registration. The center will be open from 11 a.m. to 2:30 p.m. on Monday, Tuesday and Wednesday during the meeting, and then briefly on Thursday morning.

Job applicants should submit résumés on the form printed in this issue of JAOCS. Applicants who will attend the meeting may request that their names and addresses be kept confidential through the use of code numbers. Résumés of applicants who are unable to attend the meeting cannot be kept confidential.

Employers also are requested to use the form printed in this issue of JAOCS. All forms will be posted in the placement center. If an employer wishes his identity to be kept confidential, a code number will be assigned. Employers who are unable to attend the meeting but who are seeking new employees are encouraged to submit job listings.

Forms from applicants and employers should be mailed to arrive at the AOCS office in Champaign before April 12, 1985. There is no charge to applicants who are AOCS members or to student nonmembers who register and submit applications before April 12; there is a \$10 fee for nonmembers who register by April 12 and \$25 for nonmembers who register after April 12. There is no fee to employers listing jobs. No one will be admitted to the placement center without a meeting registration badge.

Job applicants and employers' interviewers should check in at the placement center for final instructions after registering at the meeting in Philadelphia.

Spouses' program

Registrants in the spouses' program for the AOCS meeting in Philadelphia will have a chance to tour America's revolutionary past, visit a former du Pont estate and get an inside look at the world's largest private mint.

In addition to participating in the tours described below, registrants will receive tickets to the Sunday evening mixer (see description in separate article on social events), and may participate in the optional social events including the Wednesday evening banquet, Monday evening 1st Annual Fat People's Run, or trips to Atlantic City.

Following are brief descriptions of the tours that will be part of the 1985 spouses' program:

May is a lovely time to visit Philadelphia. The grass is green, trees are in bloom and the fountains along the Parkway are flowing. Registrants for the spouses' program will soon find out why Philadelphia is the best kept secret on the east coast.

On Sunday evening, all registrants (including spouses) will gather at The Franklin Institute Science Museum for the traditional mixer. (See description in separate article on social events.)

We will gather together on Monday morning at the Society's Plenary Breakfast, and then board buses for a tour of "America's Most Historic Square Mile." This walking/bus tour includes the Graff House, where Jefferson drafted the Declaration of Independence; Independence Hall, where the Declaration and the Constitution were accepted; Congress Hall, capitol of the U.S. from 1790-1800; The Liberty Bell in its new home; Carpenters Hall; First Bank of the United States; Free Quaker Meeting House and Franklin's grave; the extraordinary Franklin Court with its underground

Meetings

Six Honored Students selected

Six graduate students from the United States have been selected as 1985 AOCS Honored Students. Each will be a guest of the AOCS at the annual meeting in Philadelphia during May, and each will present a research paper at that meeting.

The six recipients this year, and their universities, are:

- Robert S. Chapkin, University of California at Davis.
- Evan S. Deneris, University of California at Los Angeles.
- Nagwa Z. Hassanen, Texas A&M University, College Station, Texas.
- Marc Linne, Lehigh University, Bethlehem, Pennsylvania.
- Kwang L. Rho, Kansas State University, Manhattan, Kansas.
- Kurt L. Wiese, University of Arkansas, Fayetteville, Arkansas.

Each Honored Student receives a complimentary registration for the meeting as well as funds to pay housing and travel expenses.

Large exhibit expected

One of the largest industry exhibits at an AOCS national meeting will be presented during the 1985 annual meeting in Philadelphia.

As of early December, 74 exhibit booths had been reserved out of a total of 90 available. AOCS Director of Advertising Patrick Graham said he expects the remaining 16 to be booked by the time of the meeting.

The exhibit will open at noon Sunday, May 5, when registration opens, and will remain open until 5:30 p.m. Other exhibit hours during the week are scheduled as follows: Monday, May 6, 9:30 a.m. to 5:30 p.m.; Tuesday, May 7, 9 a.m. to 5:30 p.m., and Wednesday, May 8, 9:30 a.m. to 5 p.m. Thursday, May 9, the exhibit area will be closed.

Exhibit participants confirmed as of early December:

Accurate Chemical and Scientific; Alfa-Laval Inc.; Anco/Votator Division of Cherry Burrell; Artisan Industries Inc.; Berico Industries Inc.

Brinkmann Instruments Co.; Cambrian Engineering Group Ltd.; CEM Corporation; Critical Fluid Systems Inc.; Crown Iron Works.

Eastman Chemical Products; EMI Corporation; Equipment Engineering; Fisher Scientific Co.; The Foxboro Company.

French Oil Mill Company; Groen Division/Dover Corporation; Haldor Topsoe Inc.; Harshaw/Filtrol Partnership; Idrex Inc.

Industrial Filter & Pump; Jobba Growers Association; L.A. Salomon & Bro.; Lurgi; Marcel Dekker Inc.

Maschinenfabrik Reinartz GmbH & Co. KG; Mettler Instrument Co.; Milton Roy Company; Miroil; National Sunflower Association.

Neumunz Inc.; Newman-Howells Ltd.; N. Hunt Moore & Assoc. Inc.; Novo Laboratories Inc.; Nu-Chek Prep Inc.

OM Ingredients Inc.; Photovac Inc.; POS Pilot Plant Corp.; Prater Industries Inc.

Roskamp Mfg. Inc.; Reheis Chemical Company; Simon-

Rosedowns Ltd.; S.A. Fractionnement Tirtiaux; Technicon Industrial Systems.

Tekmar Company; The Tintometer Company; Unichema Chemical Inc.; UOP Process Division; USOP Ltd.

Varian Instrument Company; Waters Chromatography Division of Millipore, and Wurster & Sanger Inc.

Short courses announced

Registrations are now being accepted for the three AOCS educational courses to be held in White Haven, Pennsylvania, the week before the AOCS annual meeting in Philadelphia.

All three courses will be held at the Hershey Pocono resort in White Haven, approximately 100 miles outside Philadelphia.

The fee for each course will be \$180 for AOCS members and \$230 for non-members. Fees include the technical sessions, opening mixer, coffee breaks and concluding dinner. Fees do not include housing, transportation or other meals.

The AOCS Short Course on Processing and Quality Control of Fats and Oils will be held April 30-May 1. Invited speakers will cover all aspects of processing and quality control from solvent extraction through refining to finished products.

The AOCS Short Course in Applications of Analytical Methodology in Fats and Oils Processing will be held May 2-3. The course is designed to discuss specific applications of modern analytical methodology and equipment to commercial processing.

Persons attending both of these short courses can register at a reduced fee. AOCS members who register for both short courses will pay \$320; non-members who attend both courses will pay \$400.

The third educational event is an AOCS Research Conference on Fat Requirements for Development and Health, which will be held May 2-4. Topics will include fat metabolism in the young, parenteral nutrition, fat and immunology, aging and related topics.

Registration forms are included in this issue of JAOCS. If those forms have been removed, additional forms may be ordered from the Meetings Coordinator, AOCS, 508 S. Sixth St., Champaign, IL 61820.

INTSOY dates set

The 1985 INTSOY course on "Soybean Processing for Food Uses" will be held May 28 through July 12 at the University of Illinois, Urbana, Illinois.

The course teaches principles of preparing human foods from soybeans, with an emphasis on innovative food products that can be made from whole beans. Participants do classroom and laboratory work at the University and visit processing and food manufacturing companies, including a one-week study tour through the Midwest. Participants also will attend the Institute of Food Technologists annual meeting in 1985. Fee is \$2,400, but does not include transportation to or from the United States or living expenses. Deadline for enrollment is April 1, 1985. Further details are available from INTSOY, University of Illinois, 113 Mumford Hall, 1301 W. Gregory Dr., Urbana, Illinois 61801, USA.