• *New Members*

Welcome! Your new colleagues are eager to share with you all of the benefits of full participation in AOCS. Whatever your special interest in the field of fats and oils, the Society is pleased to offer new and continuing opportunities for growth in the science to which you are dedicated.

Active

Gert Als, Senior Chemist, Aktieselskabet Grindstedvaerket, Brabrand, Denmark.
Paul W. Baker, Chemist, The Richardson Company, Melrose Park, Illinois.
Rubin Bernstein, Director, R&D, The Clarkson Laboratories, Inc., Camden, New Jersey.
Giovanni L. Bigalli, Research Associate, Pennsylvania State University, Hershey, Pa.
Andrew B. Bond, Associate Professor of Biochemistry, Tennessee State University, Nashville, Tennessee.
Bert R. Boynton, Refinery Chemist in Charge, Swift & Co., Fort Worth, Texas.
Bob Bozovich, Research Chemist-Fats and Oils, Wilson & Co., Inc. Research & Technical Div., Chicago, Illinois.
Edward E. Bryan, Catalyst Sales Representative, Harshaw Chemical Company, Houston, Texas.
George T. Clenzos, Chief Oil Chemist, Canada Packers Ltd., Montreal 101, Canada.
Henry B. S. Conacher, Research Scientist, Research Labs, Food and Drug Directorate, Ottawa, Ontario, Canada.
Robert L. Cunningham, Manager and Head Chemist, Woodson-Tenent Laboratories, St. Louis, Missouri.
Douglas G. Dorrell, Research Scientist, Oil Seed Corps, Canada Department of Agriculture, Morden, Manitoba, Canada.
Jack E. Doughty, Jr., Manager of Product Quality Assurance, Hunt-Wesson Foods, Inc., Fullerton, California.
Carl A. Elliger, Research Chemist, USDA, ARS, W.U.R.D.D., Albany, California.
Hugo E. Gallo-Torres, Senior Scientist, Hoffmann-LaRoche, Nutley, New Jersey.
Gaganendra K. Ghosh, Technical Director, Swaika Oil Mills, Liluah, West Bengal, India.
Donald E. Goodman, Instrumental Analyst, Humko Chemical Division, Div. of Kraftco Corp., Memphis, Tennessee.
Frederick T. Hatch, Senior Scientist, Bio-Med Division, University of California, Lawrence Radiation Lab., Livermore, California.
Lynn A. Hawkins, Jr., Laboratory Manager, Woodson-Tenent Laboratories, Gainesville, Ga.
William J. W. Hines, Research Biochemist, Ulster Curers Association, Belfast, Northern Ireland.
William A. Horton, Vice President-Operations, Sessions Company, Inc., Enterprise, Alabama.
Robert H. Hrushowy, Oil Chemist, Canada Packers Ltd., Toronto, Ontario, Canada.
Stanley C. Judd, Refinery Chemist, Agra Vegetable Oil Products Ltd., Nipawin, Saskatchewan, Canada.
Elwynn L. Keyser, Plant Manager, J. H. Filbert, Inc., Atlanta, Ga.
Ehud (Ed) Kirschner, Associate Director of Research, Pacific Vegetable Oil Corporation, Richmond, California.
John L. Laseter, Assistant Professor (Biological Sciences) LSUNO, New Orleans, La.
Jose R. Lajara, Plant Superintendent, Compania Industrial y de Abastecimientos, S.A., Tarragona, Spain.
Marcel Lie Ken Jie, Post-Doctoral Fellow, Hong Kong University, Hong Kong.
Kenneth Lippel, Assistant Professor, Dept. of Dermatology, University of Miami School of Medicine, Miami, Florida.
John F. Marsden, Chemical Engineer, Procter & Gamble, Cincinnati, Ohio.
Richard W. Martin, Staff Chemist, Chas. V. Bacon Laboratories, Inc., New York, N.Y.
Richard D. McCormick, Editoral Director, Food Product Development (Magazine) Chicago, Illinois.
George J. Meisters, Research Chemist, Armour Industrial Chemical Co., McCook, Illinois.
Eugene J. Miller, Section Head, Armour Industrial Chemical Co., McCook, Illinois.
Charles W. Morris, Project Engineer, Tall Oil Plant, SCM Corp., Glidden-Durkee Div., Port St. Joe, Florida.
Jon J. Prentice, Manager, Central Quality Assurance & Customer Service, Hunt-Wesson Foods, Fullerton, California.
Ranga Robinson, Research Associate, Banting & Best Depts. of Medical Research, University of Toronto, Toronto, Ontario, Canada.
Jeffrey M. Roehm, Research, Biology Dept., Battelle-Northwest, Richland, Washington.
Betty I. Roots, Associate Professor of Zoology, University of Toronto, Ramsay Wright Zoological Laboratories, Toronto, Canada.
Paul H. Sauer, Quality Control Supervisor, Anderson, Clayton Foods, Jacksonville, Ill.
Kathy C. Shiau, Research Chemist, American Cholesterol Products, Edison, New Jersey.
Samuel E. Shull, Process Development Engineer, Glyco Chemicals, Williamsport, Pennsylvania.
Fritiof S. Sjostrand, Professor, Dept. of Zoology, University of California at Los Angeles, Los Angeles, California.
Josef Sliwiok, Head of Dept. of Organic Chemistry, Silesan University, Katowice, Poland.
James G. Smith, Refinery Chemist, Supervisor, Swift & Co., Fort Worth, Texas.
Donald C. Strathdee, Chief Chemist, Industrial Laboratories, Fort Worth, Texas.
Takashi Takahashi, Assistant Scientist, The Hormel Institute, Austin, Minnesota.
Richard K. Teran, Chemist, Baker Castor Oil Co., Bayonne, New Jersey.
William E. Wimble, Jr., Manager Distributor Sales, Atlas Chemical Industries, Inc., Wilmington, Delaware.
Chang Up Yu, Assistant Chemist, Corn Products Co. International, Inc., Chicago, Illinois.
Herman W. Zabel, Executive Vice President, Roger Williams, Inc., Princeton, New Jersey.

Individual Associate

Joel D. Goebel, Chemist, Cargill Inc., Des Moines, Iowa.
Edward S. Murakami, Quality Control & Public Relations Executive, Baker Commodities, Inc., Los Angeles, California.
Jose Luis Terrones, Project Engineer, Aceites Polimerizados S.A., Mexico D.F., Mexico.
Brantley D. Thomas, Jr., Group Leader, Tall Oil Research, Westvaco Corp., North Charleston, South Carolina.
James R. Vetter, Junior Chemist, Quaker Chemical Corp., Conshohocken, Pa.

Active Junior

Marshall K. Cheung, Graduate Student, University of Indiana, Indianapolis, Indiana.
Bennie E. Jeter, Lab. Tech., Swift & Co., Fort Worth, Texas.
Stanley T. Michalski, Graduate Assistant, Iowa State University, Ames, Iowa.

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• *New Members . . .*

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Jacqueline T. Terranova, Graduate Student, Louisiana State University in New Orleans, New Orleans, La.
Larry W. Wilson, Student, University of Georgia, Athens, Georgia.

Corporate Associate

Extrin Flavors, Inc., Grant M. Sweet, President, Long Island City, N.Y.
Sweco, Inc., J. P. Miller, Mgr., Process & Development Engineering, Los Angeles, California.

• *Glycerine Analysis Subcommittee Report...*

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to have the official U.S. method differ from the ISO procedure since international trading might be affected.

2. Primary Standard for Caustic

The committee feels that potassium acid phthalate is the best primary standard for caustic solutions. The approach being considered by ISO, although basically sound, is quite involved and therefore subject to errors. It has been suggested that any reference to standardization of caustic could be worded to permit use of any reliable standard. This might be the best way to resolve the differences.

3. Ash

The ISO proposal that the ash on crudes be obtained by ashing at 750 C for 10 min has not been generally accepted by the committee. Most members feel that further testing of this procedure must be made before any decision can be made. One member suggested that the use of sulfated ash be considered.

MONG

The committee is divided on acceptance of the MONG approach. Some members object to the fact that it gives organic matter by difference. It is generally agreed that both the current AOCS and the MONG procedures have drawbacks. The AOCS approach is not attractive because it is a time-consuming method. It also suffers from the fact that losses may occur in the heating step (at 175 C) if the alkalinity or acidity is not adjusted carefully. The MONG procedure is quite simple since only total glycerine, ash and water need to be measured, the balance being designated MONG. It is useful therefore as a practical procedure, and results obtained, although empirical, should be as valid as those obtained by the AOCS method. Any decision on the MONG question must await further ISO action.

Arsenic

The committee believes that the colorimetric silver diethyldithiocarbamate method is the best method for the determination of arsenic. The ISO committee is still debating on this matter and we must await developments until their next meeting.

R. J. Houle
C. F. Smullen
S. P. Smock
E. K. Schultz
N. C. Schultze
T. M. Brye
R. Houston
R. M. Kelley, Chairman

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and oleic acid fractions. This demonstrates once again the ease with which such changes in carcass fatty acid compositions can be made.

THE EFFECTS OF NUTRITIONAL AND HORMONAL FACTORS ON THE FATTY ACID SYNTHETASE LEVEL OF RAT LIVER. D. N. Burton, Janet M. Collins, A. L. Kennan and J. W. Porter (Lipid Metabolism Lab., Veterans Admin. Hosp., and the Depts. of Physiolog. Chem. and Gynecol. and Obstetrics, Univ. of Wisc., Madison). *J. Biol. Chem.* 244, 4510–16 (1969). The rise in fatty acid synthesizing capacity of the liver which is observed on realimentation of fasting rats with a fat-free diet has been studied. The rise to supranormal levels has been shown unequivocally to be the result of adaptive enzyme synthesis. Proof of this was obtained through the demonstration that ^{14}C-leucine is readily incorporated *in vivo* into the purified fatty acid synthetase complex formed during refeeding. In addition, measurements of the absolute levels of the enzyme in the livers of fasting and refed rats showed drastic changes in the content of this protein complex with changes in nutritional status. Similarly, alloxan diabetic and portacaval-shunted rats exhibited lowered levels of fatty acid synthetase in liver; and insulin treatment of alloxan diabetic animals caused a return of the level of this enzyme toward the normal range. The characteristics of the fatty acid synthetase isolated from the livers of rats refed for varying periods of time after fasting have been investigated. Differences in homogeneity and variation in specific enzyme activity of these preparations were found which correlated with the length of time of refeeding.

HUMAN ADIPOSE TISSUE COMPOSITION AND AGE. G. L. Baker (Dept. of Pediatrics, Univ. of Iowa, Iowa City, Iowa 52240). *Am. J. Clin. Nutr.* 22, 829–835 (1969). Adipose tissue specimens obtained at necropsy from individuals ranging from birth to 86 years of age were analyzed for water, lipid, nitrogen, DNA and fatty acids. Both subcutaneous and perirenal samples were studied in each instance. The water, lipid, nitrogen and DNA content as well as the fatty acid proportions are age related. The lipid content of adipose tissue accounted for only about 40% of adipose tissue weight in the newborn period and increased with increasing age to 75% in the adult. Concentrations of water, nitrogen and DNA declined with age.

EFFECT OF FEEDING AND WITHDRAWAL OF MENHADEN OIL ON THE ω3 AND ω6 FATTY ACID CONTENT OF BROILER TISSUES. D. Miller, K. C. Leong and P. Smith Jr. (Bur. of Comm. Fish. Technol. Lab., College Park, Maryland 20740). *J. Food Sci.* 34, 136–141 (1969). Analysis was made of the fatty acid composition of liver, adipose fat, thigh and breast muscles of broilers fed corn-soy commercial-type of diets containing one of two levels of fish oil (2.5 or 5.0%). The oil was subsequently continued, withdrawn or replaced with yellow grease 2, 3 or 4 weeks before termination of the experiment at the 8th week. The tissue contents of four ω-3-type fatty acids (20:4, 22:5 and 22:6) were increased in relation to the number of weeks menhaden fish oil was included in the diet and were significantly correlated to organoleptic scores. Liver had highest total content of the ω-3 fatty acids; the adipose fat, the least; the muscles, intermediate.

TUMOR LIPIDS: METABOLIC RELATIONSHIPS DERIVED FROM STRUCTURAL ANALYSES OF ACYL, ALKYL, AND ALK-1-ENYL MOIETIES OF NEUTRAL GLYCERIDES AND PHOSPHOGLYCERIDES. R. Wood and F. Snyder (Oak Ridge Assoc. Univ., Oak Ridge, Tenn.). *Arch. Biochem. Biophys.* 131, 478–94 (1969). The composition of the hydrocarbon moieties of the 1-, 2- and 3-positions of triglycerides and glyceryl ether diesters (GEDE) and of the 1- and 2-positions of diacyl and alkyl acyl phosphatidyl cholines (PC) and diacyl, alkyl acyl and alk-1-enyl acyl phosphatidyl ethanolamines (PE) from Ehrlich ascites cells (EAC) were determined. The carbon number percentage distribution of triglycerides, GEDE, and the diglyceride-type acetates derived from each class of PC and PE was also determined by GLC of the intact lipids. The fatty acid compositions of the 1-, 2-, and 3-positions of the triglycerides are different and also differ from the composition of the corresponding positions of the GEDE, which are not the same. Both tri-