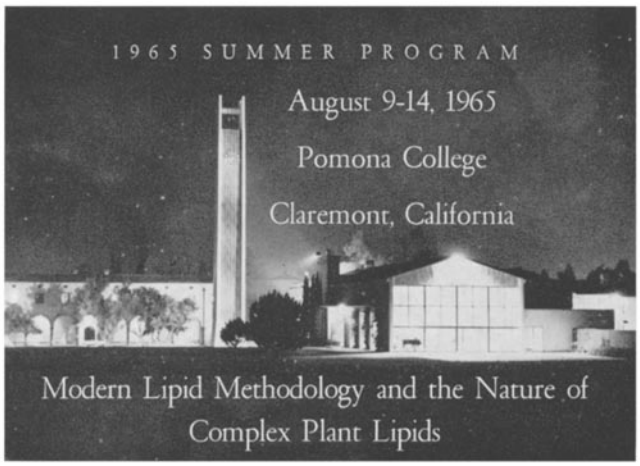

Chairman's Message

Most of us have spent frustrating weeks or months doing battle with a technique that wouldn't quite work out. Small details may make the difference between success and failure—details which the author may consider obvious and not worthy of comment in his publications. A short time with the expert who has mastered them can save a great deal of effort. The fresh ideas stimulated by these encounters are by no means an insignificant bonus. Such considerations provided the rationale for a Symposium on Modern Lipid Methodology where persons active in development of lipid research techniques would not only discuss, but also demonstrate them. The number of lecturers and the size of the audience is limited to insure ample time for individual discussion and demonstrations.

Special features of the program include emphasis on plant lipids, and lipids in membrane systems.

The Symposium is unique in other ways as well. It is the first AOCS Short Course to be held on the West Coast, and the first Symposium to be scheduled in the magnificent new Seaver Chemistry Building at Pomona College.

Claremont, the home of the College, maintains a pleasant small-town atmosphere less than an hour's drive from the heart of Los Angeles. Living quarters, meals, and swimming facilities will be provided on campus for the Symposium participants.

Plan to join us and help make this a stimulating and pleasant week!

C. Freeman Allen
Director

Tentative Program Schedule

Monday, Aug. 9—McFadden, Struck, Privett
Tuesday, Aug. 10—Chang, Weber, Privett
Wednesday, Aug. 11—Benson, Rouser
Thursday, Aug. 12—Vandenheuvel, Kates, Nelson
Friday, Aug. 13—Fleischer, Allen, Kates

Presentations are nominally scheduled 9:00–12:00 and 1:00–4:30 daily. Speakers will each have a morning or afternoon session, more or less, as the nature of their presentation requires. Demonstrations will be conducted with lectures to the entire group, and in smaller groups in the laboratory as is most appropriate.

Symposium

"Modern Lipid Methodology and the Nature of Complex Plant Lipids"

Pomona College
August 9–13, 1965

C. F. Allen
Lecture: "Multiple Techniques in the Separation and Analysis of Plant Lipids."
Illustrations of the application of countercurrent distribution, column and thin layer chromatography, X-ray fluorescence, and other techniques to lipid mixtures from green plants.

A. A. Benson
Lecture: "Identification of Phospholipids and Glycolipids." Methods for base-catalyzed methanolysis of lipids will be discussed, as will the methods and chemical reasoning necessary for paper chromatography and identification of the products. Procedures for radioactive plant lipids will be emphasized.
Demonstration: Deacylation and paper chromatography. Chemical reactivities, derivative preparation, chromatographic and electrophoretic properties, and anticipated experimental pitfalls will be discussed and, as far as possible, demonstrated in the laboratory.
Lecture: "Applications of Neutron Activation Analysis for Lipid Biochemistry." The purity of lipid extracts allows sensitive assay of P^{31} by neutron activation. The P^{32} produced on paper chromatograms and on TLC plates can be recorded by radioautography and measured by simple methods. Methods, limitations, and applicabilities in lipid analysis will be discussed.
Demonstration: Analysis of deacylated lipids by neutron activation.
Lecture: "Lipid Function in Chloroplast Lamellar Structures."

S. S. Chang
Lecture: "The Isolation and Identification of Initial Volatile Oxidation Products of Lipids."
The techniques employed were developed to insure recovery of decomposition products of lipids at low peroxide values without introduction of artifacts. Emphasis will be given to a continuous countercurrent vacuum steam distillation method for isolation, separation of the products by gas chromatography with special collection apparatus and techniques, and identification by use of infrared, NMR, and mass spectrometry.
Demonstration: The techniques applied to seed oils will be illustrated with motion pictures.

Morris Kates
Lecture: "Biosynthesis and Isotopic Labelling of Plant Lipids."
A general review of phospholipid biosynthesis in animal and bacterial cells, and a detailed presentation of recent studies on phospholipid biosynthesis in plants and algae will be given.
Demonstration: The labelling of leaf lipids with P^{32}, S^{35} or acetate-C^{14}, and chromatographic separation, identification, and specific radioactivity determination of the lipid components will be presented.
Lecture: "Enzymatic Techniques Applied to Lipids."
The action of hydrolytic enzymes on lipids will be reviewed. Detailed descriptions of the hydrolysis of galactosyl diglycerides by specific lipases, and of the action of phospholipases A, B, C, and D on lecithin and other phosphatides will be given.
Demonstration: The hydrolysis of lecithin by snake venom phospholipase A, by *P. notatum* phospholipase B, by *B. cereus* phospholipase C, and by cabbage phospholipase D, including identification of the hydrolysis products by TLC and GLC.

W. H. McFadden
Lecture: "Mass Spectrometry: Instrumentation, Interpretation of Spectra, and Applications."
Specific examples pertaining to lipid problems will include identification of products from highly oxidized lipids. Emphasis will be given to systems in which both gas chromatography and mass spectrometry have played a vital role.

G. J. Nelson
Lecture: "Automated Gradient Elution Techniques for the Separation of Lipid Mixtures of Liquid-Solid Chromatographic Columns."
Demonstration: Gradient elution of lipids from a silicic acid column using a unique automated apparatus controlled by timers, pumps, solenoid valves, etc. The operation is completely automatic once the lipids are placed on the column.

O. S. Privett
Lecture: "New Techniques in the Determination of

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J. W. Hammond Wins Humble Oil Golf Trophy

Golf Chairman Richard Slover, and winner J. W. Hammond.

J. W. Hammond, pictured here with Golf Chairman Richard Slover, is the first recipient of the Humble Oil Trophy, awarded in Houston at the Spring Meeting in April. As winner of the Annual Golf Tournament Low Net Award, his name and the year have been inscribed on the stunning silver award. The trophy itself will remain on permanent display in AOCS headquarters in Chicago. For his own trophy case, Mr. Hammond retains a handsome miniature of the award, also pictured.

Additional golf prize winners, their prizes and the respective donors are listed below:

Winner	*Prize*	*Donor of Prize*
E. H. Tenent, Jr.	Silver Tray and Bowl	American Mineral Spirits Co.
J. W. Hammond	Silver Trophy	Humble Oil & Refining Co.
A. E. MacGee	Golf Shoes	Votator Div., Chemetron Corp.
M. K. Chambers	Golf Clubs	Norris Bettis
R. J. McPherson	Golf Bag	Girdler Div., Chemetron Corp.
L. F. Deibel	Sports Bag	Bennett-Clark Company
F. C. Magne	Golf Umbrella	The Milwhite Company
R. Brian	Sports Blanket	Phillips Petroleum Company
Leonard Smith	Golf Balls	V. D. Anderson Company
F. Pasalaqua	Ball Retriever	Atlas Chemical Industries
J. H. Shelby	Cross Pen	Atlas Chemical Industries
R. C. Fritz	Travel Clock	Sparkler Manufacturing Co.
F. Matthews	Silver Tray	Houston Laboratories
J. Scott	Pilsner Glasses	Owens-Illinois
F. Coon	Ball Retriever	Atlas Chemical Industries
C. R. Rathbone	Cross Pen Set	Hoffman-LaRoche Inc.
J. Hunter	Barometer/ Hygrometer	W. H. Curtin Company
G. J. Stockmann	Golf Balls	Mine Safety Appliances Co.
J. R. Harrison	Sports Bag	Bennett-Clark Company
B. F. Brooks	Golf Balls	Drew Chemical Corporation
V. L. Zehnder	Golf Balls	Harshaw Chemical Company
L. C. Brown	Billfold	Bennett-Clark Company
H. E. Robinson	Silver Ring	Foster Wheeler Ltd. (Japan)
E. S. Pattison	Golf Balls	Wurster & Sanger
J. C. Roberts	Golf Balls	The Sharples Company
B. Minshew	Golf Balls	The Milwhite Company
H. Hagood	Manicure Set	Wurster & Sanger
L. H. Smithson	Hygrometer/ Thermometer	Fisher Scientific Company
J. Barone	Golf Balls	R. J. Brown Company
C. McKnight	Golf Balls	The Eads Company
E. A. Gaulding	Golf Balls	The Sharples Company
R. Kleinschmidt	Radar Lite	Atlas Chemical Industries
T. Waring	Golf Balls	Drew Chemical Corporation
W. Lucas	Golf Balls	Montgomery Brothers
B. J. Thomas	Golf Balls	Blaw-Knox Company
J. F. Easter	Pilsner Glasses	Owens-Illinois
K. Holt	Golf Balls	Wurster & Sanger
T. Mevers	Golf Balls	Montgomery Brothers
L. J. Weber	Golf Balls	The Elliott Company
M. Formo	Golf Balls	R. J. Brown Company
N. Danehy	Golf Balls	The Sharples Company
W. Rutherford	Golf Balls	The Sharples Company
R. DuPree	Electric Knife	North American Fiber Co.
E. M. Deck	Golf Balls	The Eads Company
J. Hourahan	Ice Bucket	Scientific Glass Appliances Co.
R. Campbell	Golf Balls	R. P. Anderson Company
E. T. Anderson	Golf Balls	Atlas Chemical Industries
H. Cripps	Billfold	Wurster & Sanger
P. D. Garvey	Cross Pen	The Elliott Company
W. D. Harris	Golf Balls	R. J. Brown Company
M. J. Andera	Golf Balls	V. D. Anderson Company
M. J. Lynch	Slide Viewer	Wurster & Sanger
R. Walker	Golf Balls	R. J. Brown Company
D. Leo	Golf Balls	The Eads Company
Mrs. Barbara Fox	Perfume	A.O.C.S.
W. Walker	Golf Balls	Humble Oil & Refining Co.
S. T. Cross	Massager	Foster Wheeler Corporation
G. Cripps	Golf Balls	Wurster & Sanger
A. Graci	Pilsner Glasses	Owens-Illinois
J. Helbig	Golf Balls	The Sharples Company
J. DiPiazza	Slide Viewer	The Eads Company
R. Logan	Manicure Set	The Elliott Company
J. McEwan	Golf Balls	Humble Oil & Refining Co.
E. Brinkley	Golf Balls	The Milwhite Company
D. Schmadeke	Golf Balls	The Milwhite Company
A. Murphy	Golf Balls	The Eads Company
W. Hipp	Golf Balls	Wurster & Sanger
W. Macklin	Golf Balls	Wurster & Sanger
Frank Kyhm	Silver Tray	Reyprint S.A.

• *Lipid Symposium . . .*

(Continued from page 336A)

the Structure of Unsaturated Fatty Acids by Reductive Ozonolysis."

Demonstration: Localization of unsaturation in a fatty acid by ozonolysis, including differentiation between cis and trans unsaturation.

Lecture: "Techniques of Quantitative Thin Layer Chromatography."

Demonstration: (with George Rouser) Analysis of a mixture of non-polar lipid classes by densitometry of charred spots, and preparation of appropriate standard curves.

Demonstration: The recovery method of quantitative thin layer chromatography applied to the determination of triglyceride structure.

Movies: 1) Ozonolysis; 2) Basic TLC techniques.

George Rouser

Lecture: "A General Approach to the Analytical Fractionation of Complex Lipid Mixtures."

The approach includes application of the cellulose or Sephadex column chromatography, DEAE cellulose chromatography, and quantitative thin layer chromatography. Hydrolysis procedures, infrared examinations, and nanogram level gas liquid chromatography are routinely used as part of the procedure.

Demonstration: (George Rouser, Gene Kritchevsky, Gerry Feldman, and Richard Baldwin) DEAE cellulose column chromatography, infrared techniques, and quantitative thin layer chromatography (charring, and densitometry).

A. N. Siakotos

Lecture: "Fractionation of Subcellular Particulates with Emphasis on Brain." Isolation of subcellular particulates from brain presents most of the problems encountered in fractionation of particulates from animal and plant sources because of the diversity of the anatomical structures. Procedures for the preparation of very pure particulates from a brain homogenate will be described. Ultracentrifugation of continuous gradients has proven most useful, and can be adapted to mass production.

Demonstration: Methods to be presented include gradient production, particle stabilization, and centrifuge operation. Electron microscopy, the prime means of proving homogeneity and structural integrity, will be demonstrated along with sample preparation procedures.

A. Struck

Lecture: "A Coupled Gas Chromatography-Mass Spectrometry System."

Demonstration: The analysis of mixtures of interest in lipid chemistry by mass spectrometry of gas chromatograph effluents concentrated by a helium separator will be demonstrated with a Hitachi-Perkin Elmer RMU-6D Mass Spectrometer system.

F. A. Vandenheuvel

Lecture: "A Precise Uutramicro Combined TLC-GLC Method for Estimation of Steroid Hormones and Metabolites."

Demonstration: The precise analysis of mixtures of urinary steroids and metabolites from urine samples as small as 1 ml. by thin layer chromatography followed by gas liquid chromatography. The technique includes steps for the conversion of conjugated steroids to the parent steroids.

Lecture: "The Structure and Function of Membranes."

Evelyn Weber

Lecture: "Inositol Lipids of Plant Seeds."

The isolation and nature of these lipids will be discussed. Solvent distribution and fractionation techniques have played an important role in the isolation. The nature of the cations associated with the lipids has a striking influence on their solubility properties and chromatographic behavior.

Demonstration: Alteration of the cationic form of phosphatidyl inositol by ion exchange techniques.