AOCS 1969 Fall Meeting . . .

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Social Highlights

The social events which traditionally supply a unique flavor of warmth and friendship to AOCS meetings will start with a social hour and mixer in the Hall of States of the Leamington Hotel on Sunday Evening, October 5. During the 1963 Fall Meeting in Minneapolis, Loyd Anderson and his cohorts on the Entertainment Committee offered you an ice carving of a Viking Ship embellished with mounds of shrimp and decorated with sauces, cheeses and loads of hors d'oeuvres. They may not duplicate this, but they intend to try so that you will have ideal surroundings to renew old friendships and make new acquaintances. On Monday evening, October 6, we will again have the delightful reception sponsored by Eastman. The traditional dinner-dance and banquet on Tuesday will be the social highlight of the Meeting. Outstanding entertainment, a dinner menu from the exceptional kitchens of the Leamington Hotel, and music by a topnotch orchestra for your dining and dancing will make this a night to remember.

—AND for the LADIES—

Mrs. Bettye Crecelius and her Ladies Entertainment Committee are planning a wide-ranging program to take advantage of the unique flavor of the Land of Ten Thousand Lakes. They find themselves in a delightful predicament! Would the visitors prefer a visit to the storied shores of Lake Minnetonka or a boat trip down the quiet glen of the St. Croix Valley? Is there more interest in a repeat visit to the unusual Swedish-American Institute or will the latest in fashions and couturier have greater appeal? The alternatives are being narrowed down, and the complete program will be supplied in a later issue of the Journal.

Exhibit at the AOCS 1969 Fall Meeting

Record-breaking attendance is expected at the 1969 AOCS Fall Meeting, which is to be held right in the heart of the oils and fats producing area, Minneapolis, Minnesota. Research, production and management people representing every area of the industry from basic raw materials to finished products will attend and participate.

The entire gamut of products used by the fats and oils industries will be represented at the 1969 Fall Exposition. These include Edible Oils, Flavoring, Fragrances, Vitamins, variety of Petroleum-Based Chemicals, Caustics, Solvents, Industrial Acids, Catalysts, Coloring, Filter Aids; latest techniques and equipment for Refining, Extracting, Sulfonation, Hydrogenation, Deodorization, Spray Drying, Filtration, Separation, etc.; and the newest developments in Automatic Recording, Controlling & Metering Equipment, Chromatography, X-Ray Diffraction, Spectrophotometry, Spectral Analysis, Thermal Analysis, and an endless list of Laboratory Equipment and Expendables.

This will be an exposition devoted to the entire field of fats and oils. Companies which supply raw materials, processing materials, plant facilities, processing equipment and instrumentation will want to be represented. For more information direct inquiries to S. M. Gaskins, AOCS Exhibit Sales Manager, 35 E. Wacker Drive, Chicago, Illinois 60601.

• *New Products*

Stirmix, a new type of magnetic mixer from WILL SCIENTIFIC, is the first to provide really effective stirring action in large volumes of high viscosity fluid. Designed to mix in round bottom flasks, Stirmix mixers employ a curved stirring blade and curved drive magnet. The complementary curves of all three elements, magnetic field, stirring blade and container, mean that Stirmix's power literally fills the flask, completely eliminating corner voids. Solid state speed control and belt drive provide high torque at low speeds for complete, continuous turnover of fluid volumes as large as 22 liters in production models and even larger in custom designed units. Mantle heating, available with every Stirmix mixer, supplies gentle, uniform heat, permits highly reproducible temperature setting for batch processing. Stirmix mixers are available in three basic models, power unit alone, power unit with spun aluminum housing for mantle type heaters, or built-in counter-top model with aluminum web to support flask heater. A mobile floor model for 50 to 70 liter flat-bottom flasks and containers is also available.

A new method of precise, reliable collection of fractions from a gas chromatography effluent has been announced by PACKARD INSTRUMENT COMPANY, INC., Downers Grove, Illinois. The Model 852 Gas Fraction Collector permits quantitative collection of individual organic compounds for subsequent analysis by radioassay, infrared or mass spectrometry, or other techniques to further identify compounds of interest. The Model 852 can be used directly with any gas chromatograph incorporating a nondestructive mass detector, or with ionization detectors by adding a stream splitter. Collection may be actuated manually by means of a push-button, or automatically on a programmed time cycle. For low-boiling point samples or sub-ambient trapping, a cooling agent can be introduced into the center well of the timetable to maintain low cartridge temperature.

Arthur D. Little, Inc., a Cambridge based Industrial Research Firm, is using a production-scale liquid chromatography system employing a 12 in. diameter by 10 ft high stainless steel column designed and built by ABCOR INC. The system is designed for the recovery of kilogram-quantities of a delicate synthetic product. Several days should be required for this large-scale purification in comparison with several months and much greater expense with the conventional 1 in. and 2 in. diameter columns. The unit will be used with Silica gel adsorbent though many other chromatographic materials could also be used. The column incorporates Abcor developed and patented radial-mixing and flow-correction devices to maintain good separating power despite the increase in column cross-section. The design permits easy assembly and disassembly of the elements for rapid packing of the columns. The material of construction is 316 stainless steel. For further information contact Abcor, 341 Vassar St., Cambridge, Mass. 02139.

The new TRACOR engineered MT150 Gas Chromatograph includes an optional solid state cryothermal programmer. The regular air oven has been carefully designed to achieve good cryothermal performance without condensation difficulties. Cryothermal programming can be particularly useful in analysis of gases with the U-70 Ultrasonic Detector (patent pending). This detector is universal and capable of operation with all carriers. It operates in a differential mode, thus eliminating many previous problems with impurities in carrier streams. The Ultrasonic System is more sensitive and more predictable than thermal conductivity with minimum detection well illustrated by reference to hydrogen in an air sample (less than 1 ppm). The MT150 also includes complete valve options, up to four inlets or four detectors including the U-70 for simultaneous operation. For further information, contact: Tracor Analytical Instruments, 6500 Tracor Lane, Austin, Texas 78721.

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• *New Products . . .*

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A convenient new method for 35 mm photography of chromatograms using ultraviolet has been developed. The process consists of a new camera-mounting metal bracket that is easily attached to or removed from the viewing port of Chromato-vue Cabinet C-5 with an extremely small site variation. The cabinet is manufactured by ULTRA-VIOLET PRODUCTS, INC.; the bracket by LESTER A. DINE, INC. Free technical data describing the new equipment is available. This data also contains a basic information table, prepared by Eastman Kodak Company, on film exposures and filters to assist in ultraviolet chromatogram photography. Information can be obtained by writing Ultra-Violet Products, Inc., 5114 Walnut Grove Ave., San Gabriel, California 91778.

CAMAG INC. has announced the new compact HVE-61-000 High-Voltage Electrophoresis system for high speed analytical separations of many low molecular weight ions, including amino acids, peptides, amines, sugars, pharmaceuticals, steroids, inorganic ions and proteins. The unit features a unique, highly efficient cooling system which uses common tap water as the coolant, eliminating the need for a refrigeration unit. The HVE-61-000 is well suited to the separation of new compounds from mixtures as well as routine clinical separations. The complete CAMAG HVE-61-000 system includes the HVE cell, safety case, and a 5000 volt power supply which requires no warm-up and has protective safety features. For complete information, write to: CAMAG Inc., 11830 West Ripley Avenue, Milwaukee, Wis. 53226.

ROGER GILMONT INSTRUMENTS, INC., 161 Great Neck Rd., Great Neck, N.Y., announces the introduction of two new Teflon-Glass valves to its line of instruments. These valves are the ultimate in simplicity. They consist of a solid Teflon stem operating in a precision bore threaded Pyrex tube. Highest corrosion resistance is achieved because fluid is in contact with these materials only. Optional Viton O-ring seals are supplied so that the valves may be used under high vacua (10^{-6} Torr). Two styles are available: the quick opening type consisting of two sliding seals and the capillary type which contains a tapered tube orifice for applications demanding extremely fine control of fluid flow.

SUPELCO, INC., Bellefonte, Pa. announced the availability of several new silicones for use as gas chromatographic stationary phases. The most polar, OV-225, is a cyanopropyl phenyl substituted silicone which has been used successfully to 300 C. This material is significantly more polar than any of the OV silicones previously offered. The second new material OV-210 is a trifluoropropyl silicone which is selective for ketones and alcohols. It also has been used at temperatures up to 300 C.

A new barium sulfate paint that offers better spectrophotometer reflectance, easier coating and greater durability, together with an improved barium sulfate powder, has been introduced by EASTMAN ORGANIC CHEMICALS, Eastman Kodak Company. The new Eastman White Reflectance Paint is exceptionally efficient in the ultraviolet region where conventional magnesium oxide coatings are least efficient. The paint is easily spray-coated and is intended for usse as an original or replacement coating for all integrating spheres on instruments such as reflectance spectrophotometers. Specially purified new Eastman White Reflectance Standard barium sulfate powder provides unsurpassed diffuse reflectance of radient energy from about 200 nm in the ultraviolet region, to about 2,500 nm in the near infrared. This material is substantially better than freshly prepared Mg O, and its high atmospheric stability, uniformity and resistance to high-intensity radiation make it useful as a reflectance working standard for spectrophotometers, colorimeters and related instruments, all making possible reliable interlab comparison of reflectance data. For further information write to Eastman Organic Chemicals, Eastman Kodak Company, Rochester New York 14650.

Protein Foods to Combat Food Shortages

Texas A&M University has proposed establishment of a facility to investigate production of protein foods from various non-meat sources to combat growing food shortages throughout the world.

While most U.S. research has concentrated on products which can be made from soybean, A&M Engineering Dean Fred Benson said the university's program would include studies of other possible low-cost sources including cottonseed, peanuts, sunflower seeds, marine life and microbiologically-produced protein.

Dr. Benson said support could be obtained from research groups such as agricultural engineering, dairy products, meat products, nutrition, biochemistry, biophysics, plant genetics, poultry products, chemical engineering, mechanical engineering, experimental statistics and microbiology.

The program would be coordinated by K. F. Mattil ('44) former associate director of research for Swift and Company. Mattil joined A&M last fall after serving 25 years with the large food firm.

Dr. Mattil said the A&M facility would include research, development, education, sample production, demonstration and extension service. Basic research, he added, would receive at least equal priority with applied research.

Whereas the U.S. devotes less than 20% of its national income to food, he said most countries—involving perhaps a majority of the world's population—must expend at least half their income to obtain sufficient food for a subsistence diet. In such diets, Dr. Mattil pointed out, substandard consumption of the protein foods is common. He emphasized that for various reasons there also are many people in the U.S. who fail to consume adequate quantities of protein foods. He said the prevalent reason is economics.

While a majority of people in the U.S. bask in an abundance of food, Dr. Mattil warned this may not always be the case. "It would be reasonable to presume that at some point in time," he noted, "the size of our population may exceed even our ability to supply an adequate amount of the protein foods that are now the accepted standards—meat, poultry, eggs and dairy products."

As the population per unit of available arable land increases, Mattil said the greatest pressure will be brought on the products of animal agriculture, since they are the least efficient to produce. "It requires substantially more units of land to produce animal proteins than it does to produce equivalent quantities of proteins from vegetable origin," he stressed.

Mattil said some of the major objectives of the proposed Texas A&M facility would be: (a) Separate and characterize important protein constituents of various oilseeds and other protein sources. (b) Develop practical processes for producing protein concentrates and isolates from unconventional sources. (c) Prepare unconventional protein concentrates that are compatible with the proteins of wheat to produce high-protein breads with quality characteristics at least equivalent to conventional breads. (d) Investigate means to increase the level of protein that can be used in beverages simulating milk or other types of commonly accepted drinks. (e) Produce proteins by microbiological processes from low-cost media other than petrochemicals. (f) Apply the developed protein concentrates and isolates to the creation of new food products, both simulating existing foods and creating entirely new concepts. (g) Modify natural proteins by chemical, physical and microbiological treatments to attain improved functional properties and new applications.