

Association Affairs

The Gordon Research Conferences, sponsored by the AAAS and formerly known as the Gibson Island Research Conferences, will be held this year from June 20 to September 2 at the Colby Junior College, New London, New Hampshire, 100 miles from Boston and 130 miles from Springfield, Massachusetts. These Conferences were established to stimulate research in universities, research foundations, and industrial laboratories. Meetings are informal, with plenty of time for informal discussions as well as scheduled lectures. They are held morning and evening Mondays through Thursdays, and on Friday mornings. Afternoons are available for recreation, reading, resting, or participation in discussion groups. This type of meeting is a valuable means of disseminating information and bringing together scientists in related fields.

The purpose of the program is not to review the known fields of chemistry but primarily to report and explore underlying theories and profitable methods of approach for making new progress. In order to protect individual rights and to promote discussion, it is an established rule of each conference that all information presented is not to be used without specific authorization of the individual making the contribution, whether in formal presentation or in discussion. No publications are prepared as emanating from the conferences.

Individuals interested in attending the conferences are requested to send in their applications to the director on or before *April 1*. Each applicant must state the institution or company with which he is connected and the type of work in which he is most interested. Attendance at each conference is limited to 100.

The director will submit the names of those requesting attendance to the conference committee for each conference. The committee will review the names and select the members in an effort to distribute the requests as widely as possible among the various institutions and companies represented. Those accepted will be notified at least five weeks prior to the date of the conference and will receive registration cards. Advance registration by mail for each conference is required. Return of the registration card with a deposit of \$25.00, made payable to the Gordon Research Conferences, AAAS, completes registration. The deposit of \$25.00 covers \$10.00 registration fee and \$15.00 credit against subsistence expenses at the college. Rates for room and meals have not yet been established but it is planned to reduce the \$9.50 daily rate charged last year. Members attending a conference are expected to live at the college but if special circumstances warrant their living elsewhere they will be charged \$1.00 per day toward support of the conferences. The special reduction of seventy-five cents a day to members attending at their own expense has been discontinued.

If it is necessary to cancel a reservation, notice should be sent to arrive in the office of the director three weeks

prior to the conference, whereupon \$20.00 will be refunded from the \$25.00 deposit. No refund will be made for later cancellation.

Accommodations are available for a limited number of women to attend the conference and for wives who wish to accompany their husbands. All such requests should be made at the time of request for attendance, because these limited accommodations will be assigned in the order that specific requests are received.

Requests for attendance at the conferences, or for any additional information, should be addressed to W. George Parks, Director, Department of Chemistry, Rhode Island State College, Kingston, Rhode Island. From June 15 to September 1, 1949, mail should be addressed to Colby Junior College, New London, New Hampshire.

Program

PETROLEUM

John R. Bowman, Chairman; C. C. Price, Vice Chairman

June 20 Beveridge J. Mair, James W. Westhaver, F. D. Rossini, "Theory and Practice of Fractionation of Liquids by Adsorption"; B. H. Sage, "Hydrocarbon Thermodynamics."

June 21 F. J. McClure, "Fundamental Aspects of Modern Combustion Research"; Manson Benedict, "Use of Entropy in Chemical Engineering."

June 22 C. F. Prutton, "Petroleum Lubricant Additives"; P. Debye, "Theory and Phenomena of Micelle Formation."

June 23 M. W. Tamele, Otto Beeck, "The Nature of the Silica-Alumina Cracking Catalyst"; P. D. Foote, "Civilization's Future Energy Needs."

June 24 A. G. Oblad, T. H. Milliken, G. A. Mills, "The Active Principle of Petroleum Cracking Catalysts."

CATALYSIS

Ahlborn Wheeler, Chairman; C. W. Montgomery, Vice Chairman

June 27 Discussion. H. S. Taylor, "The Recent Work of G. M. Schwab on the Activity of Alloy Catalysts"; John R. Bowman and Richard H. Wilhelm, "Theory and Practice in Fluid Bed Catalysis."

June 28 Pierce W. Selwood, "A New Technique: Nuclear Induction and the Structure of Catalytically Active Solids"; L. Hofer, "Thermo-Magnetic Analysis of Fischer-Tropsch Catalysts"; Otto Beeck, "Mechanism of (a) Isomerization and (b) Fischer-Tropsch Reactions from Experiments with Radio-Carbon and Heavy Hydrogen."

June 29 J. T. Kummer and P. H. Emmett, "Use of Isotopic Tracers in Chemisorption of Carbon Monoxide and Hydrogen on Iron Catalysts"; Henry H. Storch,

"Progress Report on Process Development in Fischer-Tropsch Reaction at the U. S. Bureau of Mines"; Speaker to be announced, "The Fischer-Tropsch Reaction in Fluid Beds."

June 30 Symposium on Catalyst Selectivity. Ahlborn Wheeler, "Introduction: The Influence of Reaction Kinetics and Pore Structure on Catalyst Selectivity"; John Turkevich, "Correlation of Selectivity with the Structure of the Catalyst Surface"; K. K. Kearby and Robert P. Sieg, "Selectivity and Reaction Mechanism in the Dehydrogenation of Butanes and Butylenes."

July 1 L. N. Leum, "Factors Affecting Selectivity, Activity and Life in Catalytic Cracking"; A. G. Oblad, "Structure and Activity of Oxide Type Catalysts—A New Concept."

ION EXCHANGE

W. C. Bauman, Chairman; Robert Kunin, Vice Chairman

July 4 W. C. Bauman, "Cation Exchange Resins"; R. Kunin, "Anion Exchange Resins."

July 5 W. P. Kelley, J. S. Joffe, "Inorganic Exchange Materials, Relation to Soils"; G. E. Boyd, E. R. Tompkins, "Ion Exchange in the Inorganic Field."

July 6 M. Calvin, B. N. Dickinson, H. G. Cassidy, "Ion Exchange in the Organic Field"; L. Hammett, "Ion Exchange Resins as Catalysts."

July 7 H. P. Gregor, L. E. Davis, "Static Equilibria in Ion Exchange Resins"; E. J. Roberts and H. Bliss, "Kinetics in Batch and Continuous Operation."

July 8 G. P. Monet, W. Juda, "Ion Exchange as Unit Process—Economies."

POLYMERS

R. M. Fuoss, Chairman; H. M. Spurlin, Vice Chairman

July 11 H. F. Mark, "Polymerization and Polymer Properties in the Solid State"; P. J. Flory, "Molecular Configuration and Intrinsic Viscosity of Polymers."

July 12 B. H. Zimm, "Light Scattering and the Structure of Polymers"; R. S. Spencer, "Rheological Properties of Polymers."

July 13 M. S. Matheson, "Absolute Rate Constants in Free Radical Polymerizations"; K. Nozaki, "Long-Lived Free Radicals in Polymerization Reactions"; G. E. Hulse, "Redox Emulsion Polymerization Systems"; J. M. Swanson, "Physical Characterization of Cellulose Xanthate in Solution."

July 14 C. T. Walling and F. R. Mayo, "Copolymerization by Non-Radical Mechanisms"; R. G. Heiligmann, "Friedel-Crafts Catalyzed Polymerization at Low Temperatures"; S. G. Cohen, "Some Reactions of Alkyl Percarbonates"; C. D. West, "Some Molecular Interactions with Polar Polymers."

July 15 C. A. Winkler, "Experiments on Diffusion of High Polymers."

TEXTILES

J. H. Dillon, Chairman; Earl E. Berkley, Vice Chairman

July 18 H. Mark, "Principles for the Selection of Fiber-Forming Materials"; R. C. Houtz, "Orlon' Acrylic Fiber: Chemistry and Properties."

July 19 Milton Harris, "The Nature of the Felting Phenomenon and Some Anti-Felt Treatments"; E. L. Skau, "A Calorimetric Investigation of the Cellulose-Water Relationships in Textile Fibers."

July 20 William Utermohlen, "Detergency Studies"; T. E. Morton, "Dyeing of Cellulose Considered as a Diffusion Process."

July 21 J. W. Rowen, "Some Infrared Studies on Cellulosic Compounds"; Joseph Brant, "Discussion of Crease-Resistant Treatments of Fine Cotton Fabrics."

July 22 Robert Hoffman, "Relationship of Fiber Properties to Fabric Properties."

CORROSION

H. R. Copson, Chairman; W. S. Loose, Vice Chairman

July 25 H. H. Uhlig, "Theoretical Considerations Pertinent to Localized Corrosion"; Norman Hackerman, "Effect of Condition of the Metal Surface on Localized Corrosion."

July 26 F. L. LaQue, "Pitting in Sea Water and Brines"; W. Lynes, "Impingement Attack."

July 27 E. P. Partridge, "Pitting in Boiler Waters and Fresh Waters"; A. Wachter, "Effects of Inhibitors on Localized Corrosion."

July 28 A. Brenner, "Pitting Through Coatings"; R. B. Mears, "Granular, Transgranular, and Intergranular Corrosion."

July 29 F. W. Fink, "Techniques for Studying Localized Corrosion."

INSTRUMENTATION

H. C. Frost, Chairman; V. F. Hanson, Vice Chairman

August 1 Physical Methods for Chemical Analysis. Speaker to be announced, "Review of Recent Advances in Absorption and Emission Spectroscopy"; D. D. Friel, "Recent Improvements of Baird Infrared Gas Analyzer"; Willard H. Bennett, "Radio-Frequency Mass Spectrometer"; William Parrish, "X-ray Powder Diffraction Analysis; Geiger Counter and Film Techniques."

August 2 Measurements of Physical Properties of Materials. Shirleigh Silverman, "Transient Gas Temperature Measurements"; Frank T. Gucker, Jr., "Photoelectric Methods of Determining Size and other Properties of Aerosol Particles"; John W. Forrest, "New Developments in Optical Instruments."

August 3 Symposium on Special Instruments. This session will consist of a series of short contributions by members of the Conference. Its purpose will be to describe the application of important instruments that have been found useful for special studies but which are not known by the average laboratory worker. While it is not intended to publish the program for this session in advance, some of the subjects to be presented include: (1) Non-dispersive Ultraviolet Gas Analyzer. (2) Discussion of New Electric Circuits for Chemical Investigations. (3) Guard Circuit Bridge with Oscillograph Detector for Resistance and Capacity Measurements in the Range of 100 Cycles to 300 Kilocycles. (4) A.C. Operated Micro Micro-ammeter with Built-in Regulated

Power Supply Suitable for Recording or Indicating Phototube or Ion Chamber Currents. (5) High Sensitivity Recording Electronic Potentiometer.

August 4 Electronic Instruments and Elements for Research. J. P. Arndt, Jr., "Piezoelectricity Applied to Instrumentation"; Allen B. du Mont, "Use of Cathode-Ray Oscilloscopes in Chemical and Physical Research"; Joseph F. Lash, "A Contact Modulated Amplifier and Some of Its Laboratory Uses."

August 5 Application of Industrial-Type Instruments to Research. Speakers for this session will be announced at a later date.

VITAMINS AND METABOLISM

Esmond E. Snell, Chairman; E. L. R. Stokstad, Vice-Chairman

August 8 C. A. Baumann, "Biological Value of Certain Carotinoids"; Paul D. Boyer, "Structure and Properties of Tocopherols in Relation to Biological Function"; Roger J. Williams, "Individual Metabolic Patterns and Their Significance in Nutrition and Disease"; C. Woodruff and W. J. Darby, "The Relation of Vitamin C and Folic Acid to Tyrosine Metabolism."

August 9 Gladys Emerson and T. R. Wood, "Some Aspects of Vitamin B₁₂"; H. B. Woodruff, "Microbiological Response to Vitamin B₁₂ and Substances of Related Physiological Activity"; L. D. Wright, "Microbiological Studies with Vitamin B₁₂." Discussion: William Shive. George K. Davis, "The Minor Elements, Cobalt, Copper and Molybdenum in Animal Nutrition."

August 10 George W. Kidder, Virginia C. Dewey and R. E. Parkes, Jr., "The Use of Tetrahymena in Vitamin and Metabolism Studies." Discussion: E. L. R. Stokstad. G. Fraenkel, "Insects in Vitamin Research with Special Reference to New B-Factors"; Henry Lardy, "Metabolic Functions of Biotin." Discussion: Robert E. Eakin.

August 11 William Shive, "Metabolite Antagonists and Vitamin Function"; Herschel K. Mitchell, "Neurospora Metabolism and Vitamins"; H. E. Carter, "Inositol Lipids"; I. C. Gunsalus, "Nature and Function of an Unidentified Factor Required for Pyruvate Oxidation."

August 12 John R. Murlin, "The Criteria of Biological Values Among Food Proteins." Discussion: D. V. Frost. J. B. Thiersch and F. W. Phillips, "Effect of Folic Acid Antagonists on Mammals in Reference to their Action on Neoplastic Disease."

FOOD AND NUTRITION

Daniel Melnick, Chairman; James B. Allison, Vice-Chairman

August 15 Food Acceptance. Frank R. Goetzl, "Studies on Human Appetite"; John R. Brobeck, "The Role of the Nervous System in Regulating Food Intake." Discussion: Richard H. Barnes. Theodore F. Zucker, "Appetite Depressants with Particular Reference to Gossypol"; Aaron M. Altschul, "Chemical and Physiological Investigations of Gossypol." Discussion: Edward Eagle.

August 16 Adjustment to Malnutrition. Harold H. Mitchell, "Studies with Animals"; Herbert Pollack, "Studies with Humans." Discussion: Norman Jolliffe. Henry L. Taylor, "Starvation"; Speaker to be announced, "Obesity." Discussion: L. Emmett Holt, Jr.

August 17 The Pros and Cons of Proteolysis in Food Processing and Storage. William F. Geddes, "The Milling and Baking Industry"; Orville G. Hankins, "The Meat Packing Industry." Discussion: Daniel Melnick. Newer Techniques and Controls in Preservation of Foods. Charles R. Stumbo, "Agitation of Foods during Thermal Processing"; Bernard E. Proctor, "Irradiation Procedures." Discussion: John M. Jackson.

August 18 Chromatographic Techniques. Richard J. Block, "Amino Acid Analyses"; Speaker to be announced, "Carbohydrate Analyses." Discussion. The Nutritional Implications of Vitamins with Modified Solubility Characteristics. Aaron Arnold, "Water-insoluble Forms of the Water-soluble Vitamins"; Albert E. Sobel, "Water-dispersible Forms of the Water-insoluble Vitamins." Discussion: Saul H. Rubin.

August 19 Physiological Availability of the Amino Acids. Carl N. Lyman, "Availability for Absorption"; Ernest Geiger, "The Importance of the Time Element in Supplementation." Discussion: Robert A. Harte.

MEDICINAL CHEMISTRY

R. C. Batterman, Chairman; Marlin T. Leffler, Vice-Chairman

August 22 Antihistaminics. Arthur W. Weston, "Chemistry of Antihistaminics"; Earl R. Loew, "Pharmacology and Mechanisms of Action of Antihistaminics"; Frederick Brown, "The Clinical Use of Antihistaminics in the Respiratory Allergies"; Walter C. Lobitz, Jr., "The Value of Antihistaminics to the Dermatologist."

August 23 Enzymes. Arthur Kornberg, "Enzymatic Synthesis of Dinucleotides"; Thomas P. Singer, "The Action of Riboflavin Analogues on Isolated Enzymes." Macrocytic Anemia. Karl Folkers (Tentative), "Vitamin B₁₂"; A. L. Franklin, "Nutritional Aspects of Animal Protein Factor"; Arnold D. Welch, "Present Status of Folic Acid and Vitamin B₁₂."

August 24 Chemotherapy. H. M. Crooks, Jr., "Chemistry of Chloromycetin"; Lawrence B. Hobson, "Recent Developments in Chemotherapy." Viruses. S. E. Luria, "Virus Multiplication"; Randall L. Thompson, "The Effect of Metabolite Antagonists on the Growth of Mammalian Viruses."

August 25 Rheumatoid Arthritis. Charles Ragen, "Chemistry of Rheumatoid Arthritis"; Edward F. Rosenberg, "Rheumatoid Arthritis, Present-day Aspects of Its Pathogenesis and Therapy." Diuretics. Robert A. Lehman, "Pharmacology of Mercurial Diuretics"; Robert C. Batterman, "The Clinical Evaluation of Mercurial Diuretics in the Treatment of Congestive Heart Failure."

August 26 Anticoagulants. C. F. Huebner, "Chemistry of Dicumarol and Related Compounds"; M. L. Wolfrom, "The Chemistry of Heparin and Related Types of Anti-

coagulants"; Speaker to be announced, "The Clinical Use of Anticoagulants."

CANCER

W. H. Summerson, Chairman; W. U. Gardner, Vice-Chairman

August 29 O. Warburg and A. L. Lehniger, "Cancer and Fermentation Enzymes"; G. A. LePage, "Studies of Glycolytic Enzymes of Tumors"; J. Greenstein, "Proteolytic Enzymes and Cancer"; D. M. Greenberg, "Effect of Amino Acid Analogs on Protein Formation: Relation to Cancer."

August 30 E. S. Guzman Barron, "Mechanism of Action of Ionizing Radiations"; E. Lorenz, "Some Biological Effects of Ionizing Radiations on Laboratory Animals"; G. O. Gey, "Evidences of Biologic Variation in Tissue Cultured Strains of Normal and Malignant Cells"; W. Earle, "Certain Recent Advances in Tissue Culture in Relation to Cancer Research."

August 31 G. H. Twombly and E. F. Schoenewaldt, "Metabolism of Estrogenic Hormones Labeled with Radioactive Isotopes"; C. R. Moore, "Role of Hormones in the Differentiation and Determination of Tissues"; A. Cantarow and K. E. Paschke, "Certain Aspects of Hormone Imbalance in Experimental Carcinogenesis"; R. K. Boutwell, "Studies on the Rate of Tumor Formation and the Activity of the Adrenal Cortex."

September 1 F. S. Philips and J. B. Thiersch, "Effects of 4-Amino Pteroylglutamic Acid and Congeners in Mammals"; E. B. Schoenbach, "Status and Potentialities of Folic Acid Antagonists as Carcinolytic Agents"; S. Farber, "Action of Folic Acid Conjugates and Antagonists on Leukemia and other Forms of Disseminated Cancer."

September 2 J. G. Kidd and H. M. Toolan, "Studies on the Mechanisms of Resistance and Immunity to Transplanted Cancer Cells"; J. J. Bittner, R. A. Huseby, and C. P. Barnum, Jr., "Studies on the Factors Associated with the Development of Mammary Cancer in Mice."

NEWS and Notes

W. C. Fernelius, chairman of the Department of Chemistry at Syracuse University, has been appointed professor and head of the Department at Penn State College, State College, Pennsylvania.

Francis E. Ray, formerly of the Laboratory of Radiochemistry, University of Cincinnati, has been appointed director of the University of Florida Cancer Research Laboratory, effective July 1.

B. I. Burns, administrator of hospitals at the University of Texas Medical Branch, Galveston, has accepted appointment as director of Municipal Hospitals for Kansas City, Missouri, effective in March.

Charles E. Lankford, formerly associate professor in Bacteriology at the University of Texas Medical School, Galveston, has been appointed associate professor in bacteriology at the main university in Austin.

Sven Hedin, 83-year old Swedish explorer and scientist who was partially blinded during an exploring expedition into Asia 55 years ago, has regained the sight of one eye through

a recent operation by K. G. Ploman, Swedish eye specialist.

William G. McDaniel, chemical engineer, has joined the Operations Branch, Plants Division, Technical Command, Army Chemical Center, Maryland.

Alice Eastwood, botanist at the California Academy of Sciences since 1892 and curator of the Department of Botany since 1896, retired on January 19 on the occasion of her ninetieth birthday. At the January meeting of the Academy Council, Miss Eastwood was made curator emeritus of botany.

John Thomas Howell was named curator, and **Elizabeth McClintock**, assistant curator.

Abel Wolman, of Johns Hopkins University, has been appointed lecturer and research consultant in Sanitary Engineering at the University of Illinois.

Margaret Fuller Boos, consultant geologist in Denver, is serving as visiting professor in the University of Illinois' Department of Geology during the spring semester.

Jaroslav Dedek, chemical engineer and former director of the research station for the sugar industry in Czechoslovakia, has taken up temporary residence in Belgium. He is interested in coming to the United States to establish an international society of beet

sugar technology. Persons wishing to communicate with him may address him in care of Robert C. Hockett, 52 Wall Street, New York City 5.

Thomas K. Sherwood, dean of engineering at Massachusetts Institute of Technology, and **Bruce S. Old**, of the Arthur D. Little staff, have been elected to the Board of Directors of Arthur D. Little, Inc., Cambridge, Massachusetts.

Hyman I. Goldstein, of Camden, New Jersey, has been elected an honorary member of the Belgian Gastroenterological Society, and a corresponding member of the Cuban Society of Cancerology.

The appointment of **Harold H. Berman** as director of Willowbrook State School, Staten Island, New York City, was recently announced. Dr. Berman was formerly on the medical staff at St. Lawrence State Hospital, Ogdensburg.

Walter P. Taylor, wildlife research supervisor, U. S. Fish and Wildlife Service, and leader of the Oklahoma Cooperative Wildlife Research Unit, has been elected honorary Life Fellow of the Texas Academy of Science.

John B. Calkin, of New York City, has been appointed director of the Department of Industrial Cooperation, and associate professor of chemical engineering at the University of Maine. **Lyle Jenness**, who has been