

Gordon Research Conferences, AAAS, 1948:

Colby Junior College, New London, New Hampshire, June 21-September 3

W. George Parks, Director
Rhode Island State College, Kingston

THE GORDON RESEARCH CONFERENCES, formerly known as the Gibson Island Research Conferences, are sponsored by the AAAS. Each summer during the first 9 years following their organization by Dr. Neil E. Gordon in 1938, the Conferences were held on Gibson Island, Maryland, a few miles south of Baltimore, on Chesapeake Bay. Gifts from industrial companies whose laboratories have been represented at the Conferences and from private research laboratories provided the fund with which the AAAS purchased the Conference property. In addition, the facilities of the Gibson Island Club were available to those in attendance.

Last year, the Conferences were reorganized under the supervision of a director, a Management Committee, and an Advisory Board, which consisted of the Conference chairmen, vice-chairmen, and one representative of each of the sponsors. The Management Committee is selected by the AAAS from a list of candidates prepared by a Nominating Committee appointed by the chairman.

The Management Committee last year decided to dispose of the Gibson Island property and to move to a location more suited to the specific needs of the group. At the same time, the name of the organization was changed from Gibson Island Research Conferences to Chemical Research Conferences. A highly successful series of Conferences was held during the summer of 1947 at Colby Junior College, New London, New Hampshire. The Committee has unanimously voted to return to New London, New Hampshire, in 1948 and to adopt the name "Gordon Research Conferences, AAAS" in honor of the founder of the organization.

When the location of the Conferences was moved from Gibson Island to Colby Junior College, the increase in facilities available to the group permitted the acceptance of additional sponsors. During the past year the following companies were added to the group of 33 original sponsors: Allied Chemical & Dye Corporation, Atlantic Refining Company, Bakelite Corporation, Bristol Laboratories, Carbide and Carbon Chemicals Corporation, Commercial Solvents Corporation, Corn Products Refining Company, E. I. du Pont de Nemours & Company, Gulf Research & Development Company, Harshaw Chemical Company, International Nickel Company, Inc., Eli Lilly

and Company, Schenley Distillers Corporation, Sharp & Dohme, Inc., Sinclair Refining Company, Socony-Vacuum Oil Company, Inc., Standard Oil Company (Indiana), Sun Oil Company, Universal Oil Products Company, and Westinghouse Electric Corporation. The total number of sponsors is now 53.

LOCATION

Colby Junior College, the entire facilities of which have been made available for the Conferences, is located in the New England vacation country. By automobile, New London, New Hampshire, is located on the cross-state highway, Route 11, 100 miles from Boston and 130 miles from Springfield, Massachusetts. The White Mountains are approximately 75 miles from the College. Concord, the state capital, is 35 miles to the southeast, and Hanover (Dartmouth College) is the same distance to the northwest.

To reach the College by train, two routes are available. From Boston, Massachusetts, those attending the Conferences should take the Boston and Maine Railroad (North Station) to Potter Place, New Hampshire, which is located a short distance from New London by automobile. From New York City and the West, New London is reached via Springfield, Massachusetts, and Claremont Junction, New Hampshire, which is approximately 25 miles from New London. If one wishes to travel by air, Concord, New Hampshire, is the nearest airport and is served by the Northeast Airlines. Limited bus transportation is available. The College owns and operates a station wagon primarily for transportation to and from the railroad stations. Private taxis are also available.

There are six mountains in the skyline and numerous lakes in the immediate area. Opportunities are available for many sports, including golf (Lake Sunapee Golf Course), tennis (six composition courts and a practice board), swimming (fresh water), fishing, and boating. Indoor sports, such as ping-pong, badminton, etc., are provided for in the College gymnasium. Numerous recreational facilities are available for relaxation during the Conferences.

PURPOSE

The Gordon Research Conferences, AAAS, were established to stimulate research in universities, research foundations, and industrial laboratories. This purpose

is achieved by an informal type of meeting consisting of the scheduled lectures and free discussion groups. It is desired to stimulate informal discussions among the members of a Conference by allowing considerable time for recreation. Meetings are held in the morning and in the evening, Monday through Friday, with the exception of Friday evening. The afternoons are free for recreation, reading, resting, or participation in discussion groups as the individual desires. This type of meeting is a valuable means of disseminating information and ideas which would not be realized through normal channels of publication and scientific meetings.

It is hoped that each Conference will extend the frontiers of science by fostering a free and informal exchange of ideas between persons actively interested in the subjects under discussion. The purpose of the program is not to review well-known fields of chemistry, but primarily to bring experts up to date on the latest developments and to provoke suggestions concerning underlying theories and profitable methods of approach for making new progress.

By vote of the Management Committee the registration fee has been increased in order to provide a fund to assist those persons of academic status who cannot properly afford to attend the meetings. Speakers, as such, will receive no financial assistance for a service which is an honor and a reward in itself. However, speakers may be from an academic institution and cannot afford the expense, or there may be occasions when they are invited solely for the purpose of delivering an address at considerable inconvenience to themselves. Then, and only then, may financial assistance be granted.

REGISTRATION AND RESERVATIONS

Those interested in attending the Conferences are requested to send their applications to the director, on or before April 20. 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 individuals.

The director will submit the names of those requesting attendance to the chairman of the respective Conference. The chairman, in cooperation with a Program 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. The names selected will be returned by the chairman to the director, who will notify those accepted at least six weeks prior to the Conference requested. A registration card will be sent with the notice of selection. Advance registration by mail for each Conference is required. On receipt of the registration card and a deposit of \$25.00, made payable

to the Gordon Research Conferences, AAAS, registration will be completed. The deposit of \$25.00 will cover the registration fee of \$10.00 and \$15.00 to be credited against room and meal charges. Rooms are \$3.50 per day per person, and the meals, served in the College dining room at the same rate as last year, \$4.50 per day per person. It may be necessary to adjust the charge for meals, depending upon food prices next summer. Any necessary adjustment in either direction will be announced as soon as possible. A buffet dinner is planned for Thursday evening during each Conference at no additional charge. Several rooms with private baths will be available at the rate of \$4.50 per day per person (minimum, two persons per room). Members attending a Conference are expected to live at the College. However, if special circumstances warrant their living elsewhere, an extra charge will be made to assist with the financial support of the Conferences. On proof that the member is paying his own expenses, a reduction of \$0.75 per night may be granted on room rent. This information should be given at the time the person makes a request for attendance. If it is necessary to cancel a reservation, the notice must be received in the office of the director three weeks prior to the Conference. If such notice is received three weeks in advance of the Conference, \$20.00 will be refunded from the \$25.00 deposit. No refund will be made for cancellations received within the three-week period.

The first meeting of each Conference is held Monday morning at 9:30 o'clock. The morning sessions, through Friday, are scheduled from 9:30 A.M. to 12:00 Noon. The second session of each day is held in the evening from 7:30 to 10:00 P.M., Monday through Thursday. Conference members are expected to release their rooms not later than Sunday morning unless they have made reservations for the next Conference.

Accommodations will be available for a limited number of women to attend each Conference and for the wives who wish to accompany their husbands. All such requests should be made at the time of the request for attendance, and these limited accommodations will be assigned in the order in which specific requests are received. Children under 12 years of age cannot be accommodated. Rooms are available at several inns and hotels in the area if reservations are made in advance. No dogs or other animals will be permitted in the College dormitories.

Requests for attendance at the Conference 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 3, 1948, mail should be addressed to Colby Junior College, New London, New Hampshire.

Program

CATALYSIS

H. S. Taylor, Chairman; Ahlborn Wheeler, Vice-Chairman
June 21 J. Bardeen, "Theory of Surface Reactions"; R. A. Beebe, "Heats of Adsorption."

June 22 L. J. E. Hofer, "Iron Carbides in Fischer-Tropsch Catalysis"; P. W. Selwood, "Further Studies in Magnetochemistry of Catalysts."

June 23 General Discussion on Adsorption, van der Waals and Chemisorption. Discussion leader: Paul H. Emmett.

June 24 E. W. R. Steacie, "Free Radicals in Hydrocarbon Reactions." (Evening program will be announced later.)

June 25 R. H. Wilhelm; Raymond Wynkoop, "Flow Kinetics and Heat Transfer: Hydrogenation of Ethylene."

PETROLEUM

Otto Beeck, Chairman; J. R. Bowman, Vice-Chairman

June 28 W. F. Libby, "1. Radioactive Tracer Techniques. 2. Naturally Occurring Radiocarbon"; Melvin Calvin, "The Study of Certain Reaction Mechanisms by Use of Radioactive Carbon."

June 29 B. S. Greensfelder, "The Mechanisms of Catalytic and Thermal Cracking Reactions"; Louis Schmerling, "The Mechanism of the Alkylation of Saturated Hydrocarbons."

June 30 Charles C. Price, "Polar Intermediates in Hydrocarbon Reactions"; F. F. Rust and W. E. Vaghan, "Hydrogen Bromide Catalysis of Oxidations of Hydrocarbons."

July 1 J. W. McBain, "Solubilization"; Victor K. LaMer, "Monodispersed Colloids and Higher-Order Tyndall Spectra."

July 2 Sidney Golden, "Microwave Absorption—Interpretation and Utilization."

Profs. Urey (Chicago), Pitzer (California), and Bartlett (Harvard) will be present and will participate in the discussions.

ORGANIC REACTION MECHANISMS

Frank H. Westheimer, Chairman; Frank Mayo, Vice-Chairman

July 5 Otto Meyerhof, "The Energetics of Anaerobic Carbohydrate Metabolism"; Severo Ochoa, "Enzymatic Carbohydrate Oxidation and Carbon Dioxide Fixation."

July 6 Paul Bartlett, "Decomposition of Acyl Peroxides"; William Vaghan, "Reactions of t-Alkyl Peroxides."

July 7 M. S. Kharasch, "Free Radical Chain Reactions"; Arnold Weissberger, "Mechanism of Some Autoxidation Reactions."

July 8 F. H. Westheimer, "Mechanism of Chromic Acid Oxidation"; Paul Emmett, "Mechanisms of Hydrogenation"; C. Gardner Swain, "Termolecular Displacement Reactions."

July 9 Kenneth Pitzer, "The Protonated Double Bond."

POLYMERS

W. O. Baker, Chairman; R. M. Fuoss, Vice-Chairman

July 12 H. Mark, "Recent Polymer Research; Isomerism in Macromolecules"; G. B. Kistiakowsky, "Energetics of Organic Molecules."

July 13 C. C. Price, "Reactivities of Free Radicals"; I. M. Kolthoff, "Fundamentals of Emulsion Polymerization of Styrene."

July 14 R. W. G. Wyckoff, "Structure of Proteins"; A. D. McLaren, "Photochemistry of Proteins."

July 15 P. Debye, "Aspects of Colloidal Solutions"; F. T. Wall, "Behavior of Polymeric Electrolytes"; R. M. Fuoss, "Properties of Polymeric Electrolytes."

July 16 Program will be announced later.

TEXTILES

Ross C. Whitman, Chairman; J. H. Dillon, Vice-Chairman

July 19 Jules Labarthe, Jr., "Recent Researches at Mellon Institute of Significance to the Textile Industry"; I. Fankuchen, "New Data and Interpretations of X-Ray Studies of Fibers."

July 20 Walter J. Hamburger, "New Techniques for Analyzing the Elastic and Creep Properties of High Polymers"; W. James Lyons, "Dynamic Properties of Filaments, Yarns, and Cords at Sonic Frequencies."

July 21 Howard J. White, "Sorption and Swelling Phenomena of Natural and Synthetic Fibers"; Donald Entwistle, "Autoxidation of Alkali Cellulose."

July 22 George H. Fremon, "Vinyon N Fibers"; I. J. Gruntfest, "Recent Studies of the Cellulose-Formaldehyde Reaction."

July 23 Anthony M. Schwartz, "New Concepts of Detergency and Their Application in Textile Processing."

CORROSION

I. A. Denison, Chairman; H. R. Copson, Vice-Chairman

July 26 "Critical Experiments in Passivity": R. B. Mears, "Oxide Films"; Marshall Brown, "Oxide Films"; M. G. Fontana, "Absorbed Films"; Norman Hackerman, "Absorbed Films"; H. H. Uhlig, "Electron Configuration and Related Phenomena of Metal Dissolution."

July 27 E. A. Gulbransen, "Surface Reactions Occurring in *Vacuo* and in Low-Pressure Gas Atmospheres at High Temperatures"; Adam S. Skapski, "Surface Free Energy in Its Possible Role in Corrosion Processes"; C. V. King, "Depolarizers and the Diffusion Theory of Metal Dissolution."

July 28 T. N. Rhodin, Jr., "Chemical Activity of Metal Surfaces to Oxygen"; Norman Hackerman, "Generalized Theory of Corrosion Inhibition"; H. J. McDonald, "Measurement of Polarization by the Pulse Polarizer."

July 29 Keith H. Storks, "Microscopic and Diffraction Methods Applied to Corrosion Problems"; W. S. Loose, "Correlation of Metallographic Techniques in Magnesium Corrosion Studies"; Pierre Van Rysselberghe, "Application of the Polarograph to Corrosion Studies."

July 30 Thomas P. May, "Measurement of Surface Roughness of Metals"; O. B. Ellis, "Weather Factors in Atmospheric Corrosion Tests."

INSTRUMENTATION

J. C. Peters, *Chairman*; H. C. Frost, *Vice-Chairman*

August 2 Chemical Analysis Through Dielectric Constant Measurements. Speaker to be announced, "Methods for Measuring Dielectric Constant"; Speaker to be announced, "Solution of Analysis Problems With Dielectric Constant Measurements."

Instrumentation in Modern Radio Chemistry. Speaker to be announced, "Instruments Used for Measuring Radioactivity"; Clifford K. Beck, "Tagged Atom Analytical Techniques and Applications."

August 3 Application of Microwaves to Instrumentation. Speaker to be announced, "Basic Concepts of Microwaves as Applied to Instrumentation"; Speaker to be announced, "Solution of Measurement Problems With Microwaves."

Use of Ultrasonics in Chemical Analysis. Speaker to be announced, "Principles of Measurements Made at Ultrasonic Frequencies"; Speaker to be announced, "Recent Developments in Application of Ultrasonics to Chemical Analysis."

August 4 X-Ray Absorption Spectroscopy. H. W. Bousman, "Physical Analysis by X-Ray Absorption Techniques"; Speaker to be announced, "Continuous Measurement of Process Variables With X-Ray Absorption."

Symposium on Problems Associated With the Development of Instruments for Research and Process Measurement and Control. (Speakers to be announced.)

August 5 Raman and Ultraviolet Spectroscopy. E. J. Rosenbaum, "Raman Spectroscopy"; A. O. Beckman, "Applications of Ultraviolet Spectrophotometry."

Electrical Methods of Analysis. (Speakers to be announced.)

August 6 Measurement of Gas Concentration. O. G. Koppius, "Infrared Product Controller."

VITAMINS AND NUTRITION

Floyd S. Daft, *Chairman*; E. E. Snell, *Vice-Chairman*

August 9 L. M. Henderson, "The Relative Value of Intact Proteins and Amino Acid Mixtures in Animal Nutrition"; D. W. Woolley, "Streptogenin"; Max Dunn, "Methods and Results of Amino Acid Assays."

August 10 E. L. R. Stokstad, "The Biochemistry of Substances Antagonistic to Pteroylglutamic Acid"; O. D. Bird, "Pteroylglutamic Acid Conjugases."

August 11 Albert Tannenbaum, "The Role of Nutrition in the Origin and Growth of Tumors"; Philip R. White, Nutrition of Animal Tissue Culture (exact title to be announced); H. Trendley Dean, "Fluorine in Dental Health."

August 12 Elaine P. Ralli, "The Role and Effects of Pantothenic Acid in the Adrenalectomized Rat"; Speaker to be announced, "Enzymatic Functions of Biotin."

August 13 E. E. Snell, "Some New Nutritive Requirements of Certain Lactic Acid Bacteria."

FOOD AND NUTRITION

P. L. Harris, *Chairman*; D. Melnick, *Vice-Chairman*

August 16 Proteins in Nutrition. R. Silber, "Utilization of Amino Acid Mixtures by Dogs and Rats"; A. A. Albanese, "Present Status of Protein Hydrolysates and Amino Acids for Human Use"; D. Schwimmer; P. Swanson, "Protein Metabolism During Low Caloric Intake." Discussion leader: J. B. Allison.

August 17 Food Spoilage and Its Prevention. Symposium and Panel Discussion. W. F. Geddes, leader. Longevity. C. M. McCay, "Dietary Factors Influencing Longevity"; H. Neckeles, "Geriatric Nutrition." Discussion leader: A. J. Carlson.

August 18 Fats in Nutrition. Butter vs. Margarine. E. W. Crampton, "Effects of Heating Edible Oils Upon Their Nutritional Value." Discussion leader: to be announced. A. L. Caldwell, "Regulation of Calcification, Ergosterol, etc."; Floyd DeEds, "Biological Significance of Flavonols and Related Compounds." Discussion leader: to be announced.

August 19 Carbohydrates in Nutrition. R. C. Hockett, "Sugar in Nutrition"; R. E. Johnson, "Bleached Flour Problem." Discussion leader: L. Reiner. Non-Food Dietary Substances (Thiouracil, Estrogens, Urea, etc.). E. P. Reineke, "Factors Influencing Carcass Quality and Feeding Efficiency"; F. N. Andrews, "Factors Influencing Growth and Development, Reproduction, and Lactation." Discussion leader: A. L. Franklin.

August 20 S. Lepkovsky, "Deleterious Substances in Natural Foods"; J. R. Wilson, "Food Enrichment—Present Status and Trends." Discussion leader: L. Kline.

MEDICINAL CHEMISTRY

J. M. Sprague, *Chairman*; R. C. Batterman, *Vice-Chairman*

August 23 E. G. Klarman, "Recent Trends in the Fields of Germicides, Fungicides, and Antiseptics"; Marion B. Salzberger, "Problems in Clinical Application of Fungicides"; Speaker to be announced, "General Survey of Methods of Testing Fungicides and Germicides."

August 24 Speaker to be announced, "Chemotherapy of Schistosomiasis—Methods and Conditions of Testing"; Maxwell Schubert, "Chemotherapy of Schistosomiasis—Effects of Specific Drugs"; G. F. Otto, "Chemotherapy of Filariasis—Antimony and Arsenical Drugs"; Jack Denton, "Chemotherapy of Filariasis—Piperazines."

August 25 Herald R. Cox, "Classification and Properties of Certain Viruses and Rickettsiae"; Monroe D. Eaton, "Chemical Inhibitions of Viruses and Psittacosis, Lymphogranuloma Group"; Joseph E. Smadel, "Chemotherapy of Rickettsiae Diseases"; Harry Most, "Chemotherapy of Amebiasis."

August 26 Julius White, "Chemotherapy of Tumors and Tumor-bearing Hosts"; Arnold M. Seligman, "Chemotherapy of Cancer, Synthetic Program and Screening" (tentative); Alvin F. Coburn, "General Survey of Rheumatic Fever and Allied Diseases"; Speaker to be announced, "Biochemistry of Rheumatic Fever."

August 27 J. S. Huddleson, "Chemotherapy of Brucel-

losis—Experimental”; W. W. Spink, “Chemotherapy of Brucellosis—Clinical.”

CANCER

Gray H. Twombly, Chairman; W. H. Summerson, Vice-Chairman

August 30 The Finer Anatomy and Chemistry of the Cell. F. O. Schmitt, “Electron Microscope Observations of Certain Tissue Constituents”; Keith R. Porter, “Observations on the Fine Structure of Normal and Malignant Cells”; Arthur W. Pollister, “Chemical Composition of Chromosomes”; Edwin H. Land, “A New Color-Translation Ultraviolet Microscope”; Robert Mellors, “Applications of the Ultraviolet Microscope to the Study of the Cell.”

August 31 Hormones and Cancer. William U. Gardner, “Studies on Hormonal Imbalances in Experimental Carcinogenesis”; C. W. Hooker, “Testicular Tumors in Mice, Experimental Production and Modification”; Leo T. Samuels, “Relationship of Milk Factor to Hormones”; Konrad Dobriner, “The Excretion of Steroids in Health and Disease.”

September 1 Enzymes in Cancer. Van R. Potter, “Metabolic Pathways in Cancer Tissue”; Jesse P. Green-

stein, “Protein Metabolic Systems in Tumors”; Roy Hertz, “Competitive Inhibition of Growth-promoting Effects of Vitamins and Hormones”; J. A. Miller and E. C. Miller, “Studies on the Role of Protein-bound Dyes in Carcinogenesis by the Aminoazo Dyes.”

September 2 Isotopes as a Tool in Cancer Research. Paul C. Aebersold, “Some Isotopes of Use in Cancer Research—Their Properties, Limitations, and Availability”; G. Failla, “Problems of Protection in the Use of Radioactive Isotopes for Cancer Research”; Paul F. Hahn, “Treatment of Neoplasms by the Direct Infiltration of Radioactive Colloidal Metallic Gold”; Victor Lorber, “Some Aspects of Carbohydrate Metabolism Studied in the Intact Animal With the Aid of Carbon Isotopes”; Charles Heidelberger, “The Metabolism in the Mouse of Dibenanthracene 9,10-C¹⁴”; D. Pressman, “The Zone of Activity of Antibodies as Determined by the Use of Radioactive Tracers.”

September 3 Chemotherapy of Cancer. Joseph H. Burchenal, “The Chemotherapy of Leucemia”; Howard E. Skipper, Carl E. Bryan, and Anne Stelzenmuller, “Carbamates in the Chemotherapy of Leucemia”; Abraham Goldin, Benjamin H. Landing, and Daniel M. Shapiro, “The Effect of Nitrogen Mustard Analogs on Tumor Growth.”

Association Affairs

Southwestern Division, AAAS

The executive secretary-treasurer, Frank E. E. Germann, reports in a recent letter to members of the Division that the date for the Las Vegas meeting has been set for May 3-6, the meeting of the Executive Committee being held on Sunday evening, May 2. Abstracts of papers to be presented at this meeting should be in the hands of section secretaries not later than April 5. All correspondence regarding the meeting should be addressed to R. A. Studhalter, Texas Technological College, Lubbock, Texas, secretary for the 1948 meeting.

In addition to Dr. Germann, officers of the Division are F. H. Douglas, Denver Art Museum, president, and Ernst Antevs, Globe, Arizona, vice-president. Elected members of the Executive Committee in-

clude E. W. Haury (1948), University of Arizona; H. O. Smith (1948), New Mexico State College; W. M. Craig (1949), Texas Technological College; H. P. Mera (1950), Santa Fe, New Mexico; and Edna L. Johnson (1950), University of Colorado. Section chairmen and secretaries are, respectively: *Biological Sciences*—Edna L. Johnson, University of Colorado, and Fred Emerson, New Mexico Highlands University, Las Vegas; *Mathematical Sciences*—Emmett Hazlewood, Texas Technological College, and H. D. Larsen, University of New Mexico, Albuquerque; *Physical Sciences*—O. B. Muench, New Mexico Highlands University, and A. R. Ronzio, Los Alamos; *Social Sciences*—F. H. Douglas, Denver Art Museum, and W. W. Postlethwaite, Colorado College, Colorado Springs.

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AAAS
Centennial Celebration
Washington, D. C.
September 13-17, 1948
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