

MEETINGS

Spectroscopy

FOUR sessions, two each on January 26 and 27, will make up the program of the 8th Annual Western Spectroscopy Conference to be held at Asilomar in Pacific Grove, Calif. As in previous years, invited speakers will discuss a wide range of topics of interest to spectroscopists and ample time will be provided for informal discussion. The proceedings will not be published.

Information concerning the program can be obtained from the chairman of the Western Spectroscopy Association, Roland C. Hawes, Applied Physics Corporation, 2724 South Peck Road, Monrovia, Calif., or from the conference recorder and registrar, Dr. Jackson M. Gordon, Shell Development Company, Emeryville, Calif.

Optical Society of America

THE 1961 Spring Meeting of the Optical Society of America will take place March 2-4 in Pittsburgh, and will be, in part, concurrent with the Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy. A symposium on "New Frontiers in Optics and Spectroscopy" will be held jointly by the two groups during the morning of March 2 at the Penn-Sheraton Hotel. It will consist of three invited papers: "Optical and Infrared Masers" by C. H. Townes, "Spectroscopic Studies in the Thermonuclear Field at the Oak Ridge National Laboratory" by J. R. McNally, Jr., et al., and "New Frontiers of Astronomical Optics" by A. B. Meinel.

Headquarters for OSA members will be the Pick-Roosevelt Hotel. In addition to the usual sessions of contributed papers, the Society will present invited papers on a variety of topics, including optics in Japan, optical workshop practice, and modern methods of lens design.

An instrument exhibit, held annually in connection with the Pittsburgh Conference, will be located in the Penn-Sheraton Hotel and will be open to Optical Society members. For further details, write to the Executive Secretary of OSA, Dr. Mary E. Warga, 1155 Sixteenth Street, N. W., Washington 6, D. C.

Engineering Magnetohydrodynamics

PLASMAS in the presence of a magnetic field will be dealt with at the Second Symposium on Engineering Aspects of Magnetohydrodynamics, which is to be held March 9 and 10 at the University of Pennsylvania in Philadelphia. The meeting will be under the joint sponsorship of the American Institute of Electrical Engineers, the Institute of the Aeronautical Sciences, and the Institute of Radio Engineers. There will be four sessions dealing with communications and diag-

nostics, flight applications, fusion, and power conversion. Further details can be obtained from the program chairman, Norman W. Mather, Project Matterhorn, P. O. Box 451, Princeton, N. J.

Temperature Measurement and Control

AS previously announced, the 1961 Symposium on "Temperature, Its Measurement and Control in Science and Industry" will be held March 27-31 in Columbus, Ohio. The technical program is now complete and includes some two hundred papers dealing with temperature measurements from near absolute zero to ten million degrees Kelvin. The program lists sixteen sessions devoted to the following topics: basic concepts of temperature, temperature scales, thermocouples, resistance thermometers, gas thermometers, spectroscopic methods, pyrometry, miscellaneous methods, automatic methods for measurement and control, measurement in dynamic systems, special sources of temperature, cryogenics, plasmas, temperature measurement in geophysics, temperature measurement in astrophysics, and temperature measurement in biophysics and medicine.

Organized under the sponsorship of the American Institute of Physics, the Instrument Society of America, and the National Bureau of Standards, the conference will bring together scientists from many parts of the world. In addition to reports originating in research centers in the United States there will be papers given by representatives of laboratories in Australia, Canada, Germany, Great Britain, The Netherlands, and the Soviet Union.

The conference is under the general chairmanship of W. A. Wildhack, chief of the NBS Office of Basic Instrumentation. AIP Director Elmer Hutchisson is vice chairman of the symposium, C. L. Roberson of the Instrument Society is secretary, and C. M. Herzfeld of NBS is chairman of the program committee. Further information can be obtained by writing to V. W. Sikora, Instrument Society of America, 313 Sixth Avenue, Pittsburgh 22, Pa.

Semiconductor Purity

ULTRAPURIFICATION of Semiconductor Materials is the subject of a conference to be held April 11-13 at New England Mutual Hall in Boston, under the sponsorship of the Electronics Research Directorate of the Air Force Cambridge Research Laboratories. Among the topics to be discussed are: (1) synthesis—methods and techniques for the preparation of elemental and compound semiconductor materials; (2) purification—employment of conventional or novel techniques for obtaining high purity semiconductors; (3) analysis, including activation, spectroscopy, resonance phenomena, and other techniques for the analy-

Panoramic Physics Research

The single goal of a contract research laboratory is to be continuously engaged in significant research programs. Because the support for such research comes from industrial and government laboratories having diverse interests, the scope of activities is necessarily panoramic, as shown in this abbreviated list of research programs currently underway in the Physics Division of Armour Research Foundation.

More than half of all research programs in the Physics Division are initiated as a direct result of staff-generated research ideas which are of personal interest to the scientist. Such Project Suggestions are encouraged and even expected of our senior physicists since through them we are able to make our interests known to the many organizations that support external research.

In this very real sense, staff scientists are free to pursue research problems of their own choosing. If he wishes, a senior staff member may lead a small group of physicists in these programs, thus having the capability of effectively pursuing the technical aspects without acquiring severe administrative burdens. The opportunity to contribute to interdisciplinary research is greatly enhanced by the diversity of our interests and because the Division's 130-man staff is concentrated in a single modern laboratory building with excellent experimental and computational facilities. These advantages are coupled with significant fringe benefits including competitive salaries, four-week vacations and tuition-free graduate study.

Openings are available for intermediate and senior level scientists who feel they wish this opportunity to advance professionally in research.

ACOUSTICS

- Shear waves in solids
- Kilomegacycle ultrasonics
- Non-linear magnetostriction
- Sound velocity in liquid-gas mixture
- Sound propagation and weather

CHEMICAL PHYSICS

- Radiation induced polymerization
- Structural effects in radiation chemistry
- Radiation produced free radicals
- Reactions in organic halogen compounds
- Ionization cross sections

NUCLEAR PHYSICS

- K-shell ionization by mesons
- Neutron imaging detectors
- Beta-excited x-ray sources
- Gamma-ray backscattering
- Low Temperature scintillations

OPTICS

- Image structure and information theory
- Fiber optics research
- IR and UV backgrounds
- Studies in frustrated total reflection
- Ultraviolet photon counters

PLASMA PHYSICS

- Stability of finite plasmas
- Shock wave reactions
- High resolution electron guns
- Gas discharge neutron source
- Luminescence in shocks

SOLID STATE PHYSICS

- Excess noise in semiconductors
- Organic semiconductors
- High temperature thermoelectricity
- Microwave absorption in solids
- Radiation effects on solid surfaces

REACTOR PHYSICS

- Dust fueled reactor concept (ADFR)
- Radiation streaming
- Critical facility safety
- Radiation heating from nuclear devices
- Boiling water reactor studies (EBWR)

ALL REPLIES CONFIDENTIAL:

WRITE TO DR. L. REIFFEL,

DIRECTOR OF PHYSICS RESEARCH, DEPT. 2-S

ARF

Armour Research Foundation
of Illinois Institute of Technology

10 WEST 35TH STREET, CHICAGO 16, ILLINOIS

POSITIONS OPEN

AUSTRALIA

THE UNIVERSITY OF NEW SOUTH WALES

SENIOR LECTURER/LECTURER IN SCIENTIFIC THOUGHT

The University invites applications for appointment to the position of SENIOR LECTURER/LECTURER in SCIENTIFIC THOUGHT in the School of Philosophy, Kensington.

Salary:

Senior Lecturer: £A2579 range £A3029 per annum.

Lecturer: £A1759 range £A2464 per annum.

Commencing salary according to qualifications and experience. Applicants for the position of Lecturer must possess a degree with honours in either philosophy or a natural science, and ought to have substantial qualifications in these fields; for appointment to the position of Senior Lecturer, applicants must possess a higher degree or equivalent qualifications.

The successful applicant will undertake teaching of scientific thought to students in the Faculty of Arts and may also conduct courses in history and philosophy of science to students in faculties other than Arts.

Appointee will be eligible for 12 months' study leave on full salary after 6 years of service.

Subject to passing a medical examination, the appointee will be eligible to contribute to the State Superannuation Fund.

First-class ship fare to Sydney of appointee and his family will be paid.

Four copies of applications, together with the names of two referees, should be lodged with the Agent General for New South Wales, 56 Strand, London, W.C.2, and a copy forwarded by airmail in an envelope marked "University Appointment" to the Bursar, The University of New South Wales, Box 1, Post Office, Kensington, New South Wales, Australia, before 31st January 1961.

VASSAR COLLEGE needs instructor or assistant professor 1961-1962. Permanent opening in residential liberal arts college for women 70 miles from New York City.

Strong undergraduate program. Good facilities and library. Pleasant living. Salaries competitive. Apply to Monica Healea, Chairman, Department of Physics, Vassar College, Poughkeepsie, New York.

OVERSEAS

Robert College, in Istanbul, Turkey, presents a challenge in education in a vital part of the world. West and Middle East are contributing side by side to the development of a young and vigorous nation. Opportunities are available in engineering, business administration and economics, the sciences, and the humanities. Graduate degrees required.

Address inquiries to Dr. Howard P. Hall, Dean of Faculty, Robert College, Bebek Post Box 8, Istanbul, Turkey; with copy to the Near East College Association, 548 Fifth Avenue, New York 36, New York.

POSITIONS in the NUCLEAR FIELD

Write us first! Use our Application, No Resume Required. Our national coverage and technical experience in the nuclear field offers the maximum opportunity to achieve your goals. Confidential handling. Employer Pays Fee. Write Arthur L. Krasnow . . .

ATOMIC PERSONNEL, INC.

An Employment Agency for the Nuclear Field

Suite 1207M, 1518 Walnut St. Phila. 2, Pa.

sis of trace impurities; and (4) physical chemistry, embracing classical physical chemical studies of thermochemistry and kinetics and the chemistry of the defect solid state.

Additional information can be obtained from the conference secretary, Miss Helen Turin, Air Force Research Division, L. G. Hanscom Field, Bedford, Mass.

Carbon

COSPONSORED by the American Carbon Committee and the Pennsylvania State University, the fifth biennial Carbon Conference will be held June 19-23 on the Penn State campus. The subjects of the conference sessions and their respective chairmen are: kinetics and surface physics (S. Ergun), dislocations and high-temperature properties (J. Dienes), electronic properties (J. W. McClure), radiation effects (R. E. Nightingale), pyrolytic graphites (R. J. Diefendorf), processing and graphitization (S. W. Bradstreet), structural studies (L. E. Alexander), absorption and surface chemistry (M. Studebaker), uses and applications (E. C. Thomas).

A February 1 deadline has been set for submitting titles of papers, together with estimates of the time required for presentation. Abstracts of 200 words must be submitted in triplicate before March 1. Both titles and abstracts should be sent to Dr. G. R. Hennig, Solid State Science Division, Argonne National Laboratory, Lemont, Ill. The proceedings of the conference will be published.

For registration and other information write to the Fifth Carbon Conference, The Pennsylvania State University Conference Center, University Park, Pa.

Optical Materials

RELATIONSHIPS between optical properties and the physical structure of materials currently used in optical instruments will be discussed July 5-8 at a Colloquium on Optical Materials which is to be held in Paris during the week preceding the London Conference on Optical Instruments and Techniques. Arranged under the auspices of the International Commission of Optics and the French Committee for Optics, the four-day colloquium will have a four-part program; each day will be devoted to one of the following subjects: synthetic crystals and polarizing materials; vitreous materials (fused silica, glass, cements, fibers, etc.); thin layers (metallic and dielectric); and techniques for testing materials. Papers may be presented in English, French, or German, with the time allotment being approximately 15 minutes. Visits to neighboring research laboratories are being arranged for July 4th.

Those interested in attending should write before March 15 to Prof. A. Marechal, Institut d'Optique, 3 boulevard Pasteur, Paris 15e, France. If a paper is to be contributed the title should be given, and if the writer is interested in taking part in the July 4th visits that also should be indicated.