
Miscellany

Education

Beginning with the 1959 fall semester, Howard University will offer a program leading to the Doctor of Philosophy degree in physics. This is the second doctoral program to be established at Howard; the first, in chemistry, was inaugurated in 1955. Among the students expected to enroll in the doctoral program will be three recipients of graduate fellowships to be awarded under the National Defense Education Act. Further information on the program is available from the Division of Information Services, Howard University, Washington 1, D. C.

The Department of Radiology of the College of Physicians and Surgeons of Columbia University is offering a course in radiological physics leading to the Master of Science degree. Prerequisite for admission is a bachelor's degree with a major or strong minor in physics or its equivalent. Knowledge of general chemistry and biology is also desirable. The course will be given full time for one year or half time for two, depending on the desires of the class. For further information write to Dr. Harald H. Rossi, 630 West 168th Street, New York 32, N. Y.

Scott Paper Company, Chester, Pa., is establishing a postgraduate research fellowship at the Institute of Paper Chemistry, Appleton, Wisc., for the purpose of "increasing the basic knowledge of fibrous structures". Candidates should have a thorough foundation in physical chemistry including a knowledge of such topics as bonding forces between atoms and molecules, structure of polymeric materials, surface chemistry, and the use of radiation methods for examination of materials. The work will be under the direct supervision of the Institute's staff with active collaboration of Scott's Chemical Research Department, of which the person receiving the appointment will be a member. The Institute is associated with Lawrence College and was founded in 1929 as a graduate school and research center to serve the pulp and paper industry. Letters of application and inquiries should be sent to Kenneth W. Britt, Associate Director of Chemical Research, Scott Paper Company, Chester, Pa.

Summer Programs

Boston College will offer an intensive two-week course in Modern Industrial Spectrography from July 20 to July 31. The course is particularly designed for chemists and physicists from industry who wish to learn

the techniques of emission spectroscopy as an analytical tool. Information on the course may be obtained from Prof. James J. Devlin, S. J., Physics Department, Boston College, Chestnut Hill 67, Mass.

The University of Colorado's second Summer Institute for Theoretical Physics, featuring a series of lectures, seminars, and informal discussions on topics of current theoretical interest, will be held from June 15 to August 21. The following have been invited to lecture: Leon Brillouin (New York City), B. Downs (University of Colorado), Max Dresden (Northwestern University), E. Feenberg and H. Primakoff (Washington University in St. Louis), N. M. Hugenholtz (Institute for Advanced Study), J. Hans D. Jensen (University of Heidelberg), W. E. Lamb, Jr. (Clarendon Laboratory, Oxford), F. Rohrlach (State University of Iowa), J. J. Sakurai (University of Chicago), and A. Salam (Imperial College, London). Graduate credit may be obtained for three scheduled lecture courses: "The Many-Body Problem in Quantum Mechanics" (Prof. Hugenholtz), "Quantum Mechanical Amplifiers and Oscillators" (Prof. Lamb), and "Invariance Properties in Elementary Particle Physics" (Prof. Salam). In addition, the Summer Institute will offer ten-week graduate courses on quantum mechanics (Prof. Downs) and theoretical nuclear physics (Profs. Feenberg and Primakoff). Although there is no charge for attending the Institute lectures, those desiring graduate credit for courses must register and pay the regular fees (for information, write to Dean, Summer Session, University of Colorado, Boulder, Colo.). All other inquiries should be sent to Prof. W. E. Brittin at the University's Physics Department.

The University of California at Los Angeles is offering an intensive basic course in Gas Chromatography from June 15 to 17. It will include lectures and small-group laboratory demonstrations and is open to physicists, chemists, engineers, industrial supervisors, or other interested persons holding a bachelor's degree in science or engineering or its equivalent. Further information and applications may be obtained from Physical Sciences Extension, Mathematical Sciences Building 6115, University of California, Los Angeles 24, Calif.

Arizona State University at Tempe will present its fourth annual course in Modern Industrial Spectroscopy from August 17 through 28. Particularly designed to be of interest to physicists and chemists from industrial laboratories employing spectrographic and spectrophotometric equipment, the course will consist of morning lectures and afternoon laboratory sessions. The instructional staff will include members of the University's Department of Physics and Chemistry, augmented by invited guest speakers from industrial laboratories and technical personnel from manufacturers of analytical instruments. Complete information on the course is available from Dr. Jacob Fuchs, Director, Modern Industrial Spectroscopy, Arizona State University, Tempe, Ariz.



Radar

CROSS-SECTION STUDIES ... at Cornell Aeronautical Laboratory

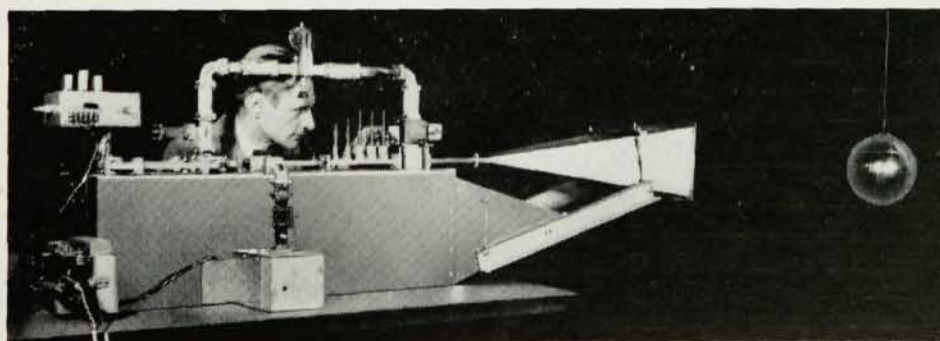
The importance of radar cross-section to the missile detection problem is well known. Recognizing the need for more and better basic data, Cornell Aeronautical Laboratory several years ago began a pioneering research program in this field.

Significant advances, shrouded by security, are being made by the Laboratory in a continuous program of theoretical and experimental investigation. CAL's contribution to theoretical analysis, measurement techniques, and understanding of results have proven to be of prime importance to both missile design and detection techniques.

The study of radar cross-sections is but one facet of the Laboratory's highly diversified electronic research activities. You are invited to write for an employment prospectus for engineers and scientists, "Community of Science." Please address Mr. J. T. Ruch, Cornell Aeronautical Laboratory, Inc., Buffalo 21, New York.

CORNELL AERONAUTICAL LABORATORY, INC.
of Cornell University

Laboratory measurement of radar cross-sections
at microwave frequencies.



Gertrude Rand receives the 1959 Edgar D. Tillyer Medal from John Strong, President of the Optical Society of America, at dinner held during the Society's Spring Meeting in New York City last month. Kenneth N. Ogle (center) presented the Society's citation honoring Dr. Rand for her many research contributions in visual physiology.



Awards

The Edgar D. Tillyer Medal of the Optical Society of America was presented for 1959 to Gertrude Rand (Mrs. Clarence E. Ferree), research associate in ophthalmology emeritus of Columbia University. The award was made on April 2 at the dinner held during the Society's spring meeting in New York City. The citation was presented by Kenneth N. Ogle of the Mayo Clinic, who commended Dr. Rand's "accomplishments and scientific standing in the field of visual physiology, achievements which far more than fulfill the conditions set forth for the awarding of the medal, namely: 'The medal may be awarded by the Optical Society of America not oftener than once in two years to a person who shall have performed distinguished work in the field of vision, including (but not limited to) the optics, physiology, anatomy, or psychology of the visual system'."

For many years Dr. Rand and her husband, the late Clarence E. Ferree of Bryn Mawr College, worked as a research team on a wide variety of problems in physiological optics, and together they contributed more than 100 papers to the literature. After Prof. Ferree's death in 1942, and until her recent retirement, Dr. Rand served as research associate in the Knapp Foundation of the Columbia University College of Physicians and Surgeons. She also served as a consultant to the wartime Office of Scientific Research and Development and has been a member of the Armed Forces—National Research Council Vision Committee.

Another event at the Optical Society dinner was the first presentation of a \$250 prize for the best paper contributed during 1958, which was given to Gerald W. Farnell, associate professor at McGill University, Mon-

tréal, Canada. Dr. Farnell received the award for his paper "On the Axial Phase Anomaly for Microwave Lenses", which was presented before the society and published in the *Journal of the Optical Society of America*. A member of the faculty of McGill University since 1950, he is associated with the Electrical Engineering Department and is also on the research staff of the Eaton Electronics Laboratory of the Department of Physics.



Prize winner Gerald W. Farnell