

SCIENCE EDUCATION

Graduate program

The University of Iowa has announced the establishment of a PhD program in the interdisciplinary area of chemical physics. The new program is to be administered jointly by the Departments of Chemistry and Physics. Participating staff members will be Professors N. C. Baenziger, W. B. Person, E. D. Cater, W. G. Miller, and D. M. Schrader, all of the Chemistry Department, and Professors Edwin Norbeck, and William Savage of the Physics Department.

Inquiries from interested students who have undergraduate degrees in physics, chemistry, mathematics, or engineering should be addressed to the Chemical Physics Committee, Chemistry Building, University of Iowa, Iowa City, Iowa.

Civil rights and federal funds

On January 3, the National Science Foundation, along with six other federal agencies*, began to carry out new regulations designed to enforce the Civil Rights Act of 1964. Under Title VI of the Act, "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."

New NSF procedures, signed by director Leland J. Haworth, specify that, if compliance in programs supported by the Foundation cannot be brought about by informal means then it "may be effected by the suspension or termination of or refusal to grant or to continue Federal financial assistance. . . ." Furthermore, all applications for assistance, whether

for construction, training, research, or student loans, must now contain the assurance that no discrimination will be practiced under the program. Nevertheless, no order to cut off federal assistance could become effective until (1) the applicant was advised of his failure to comply and his compliance could not be secured voluntarily, (2) there was an express finding on the record of failure to comply with a requirement not to discriminate, (3) the action was approved by the NSF director and the National Science Board, and (4) thirty days had expired after the director had filed a report with the House and Senate Committees having jurisdiction over the program. Provision is also made for a judicial review of the action.

New building

The US Naval Academy at Annapolis, which Albert A. Michelson attended as a student, and where he later taught and performed his first experiments on the speed of light, will name its new science building in his honor. The Academy has announced that Michelson Hall will contain a display descriptive of Michelson's life and work, with reproductions of his apparatus, including that of the historic Michelson-Morley experiment.

Academy officials are at present seeking Michelson's paintings, instruments designed by him, and books that he may have used. Any information regarding such items should be sent to Captain Dale Mayberry, Director of the US Naval Academy Museum, Annapolis, Md.

Science Development Panel

The National Science Foundation has announced the appointment of a Science Development Advisory Panel to review institutional proposals and to make recommendations to NSF's director concerning the selection of institutions to receive science development grants.

The science development program is a departure from previous NSF practice, which was mainly based on granting support for specific projects

to individuals or to groups of scientists. The new program is aimed at increasing the number of strong academic centers of scientific activity in the United States and offers sufficiently large amounts of support to enable selected institutions to make broad and general improvements in their scientific activity. The Foundation expects to make ten or fifteen grants during this fiscal year, using \$28 million which has been set aside for the purpose.

The members of the Advisory Panel are: Carl W. Borgmann of the Ford Foundation, Robert R. Brode of the University of California (Berkeley), Dale R. Corson of Cornell University, Colgate W. Darden, Jr., of Norfolk, Va., James D. Ebert of the Carnegie Institution, William B. Harrell of the University of Chicago, Lyle H. Lanier of the University of Illinois, and John R. Pierce of the Bell Telephone Laboratories.

Summer programs

Relativity theory and astrophysics will be the theme of a seminar to be held July 25 to August 20 in Ithaca, N. Y., under the sponsorship of the American Mathematical Society. The primary purpose of the meeting is to increase the number of workers in the subject fields and to describe to graduate students and recent PhD's important problems in these areas.

The seminar will cover theoretical progress in general relativity, including the general relativistic treatment of static and dynamic behavior of large masses and their gravitational fields, as well as experimental tests of the general theory. In addition, a set of lectures will be devoted to observational and theoretical cosmology with two further sets centered on various astronomical topics.

Tuition will be charged at the rate of \$100 per week for participants from industry, while those from academic or government institutions may apply for waiver of tuition. Dormitories and other housing and dining facilities of Cornell University will be available to seminar participants and their families. Application blanks for admission and for financial assistance for the seminar can be obtained from Gordon

* Departments of Agriculture; Interior; Labor; and Health, Education, and Welfare; the Housing and Home Finance Agency; and the General Services Administration.

L. Walker, Executive Director, American Mathematical Society, 190 Hope Street, Providence, R. I. 02906, and must be returned no later than March 15 to A. H. Taub, Director, Computer Center, University of California, Berkeley, Calif.

A program intended to provide experience in experimental solid-state physics for faculty members and industrial representatives will be held from August 2 to September 3 at the Massachusetts Institute of Technology. The course will be under the direction of Roy Kaplow and Paul E. Brown and will be taught by the staff of MIT's Electrical Engineering and Metallurgy Departments.

Participants will be offered a number of experimental projects, including x-ray diffraction, crystal growth, infrared spectroscopy, magnetic resonance, galvanomagnetic effects, excess carriers in semiconductors, ferroelectricity, thermal properties of solids, superconductivity, Mössbauer effect, dielectric constant, and ultrasonic measurements. The program will also include background lectures, notes, references to selected literature, and tours of several solid-state facilities at MIT. It is expected that funds will be available to support faculty participants from accredited colleges and universities.

Requests for further information should be addressed to the Solid-State Physics Program, Room 24-410, Center for Advanced Engineering Study, MIT, Cambridge, Mass. 02139.

A conference on experiments for instructional laboratories in physics sponsored by the National Science Foundation will be held at Lake Forest College, Lake Forest, Ill., from June 21 to July 2. The session will offer 36 college teachers the opportunity to make a careful study of apparatus appropriate for undergraduate physics laboratories, with special emphasis on modern physics equipment. Apparatus used in lecture demonstration and corridor displays will also be available for review.

The daily program will consist of two hours of lectures and discussion of experiments, followed by six hours of work by the participants them-

selves with the laboratory equipment. Experiments to be covered include the Mössbauer effect, application of lasers, nuclear magnetic resonance, beta-ray spectrometry, neutron activation, and radioactivity measurements.

Inquiries should be addressed to Professor H. C. Jensen, Director, Apparatus Conference, Lake Forest College, Lake Forest, Ill.

The 1965 session of the Latin American School of Physics will take place at the University of Mexico from July 26 to August 28. The courses planned will deal with methods of group theory for elementary particles and many-body problems, as well as with selected topics in nuclear physics and solid-state physics. Initiated in 1959 by a group of physicists interested in raising the level of research in physics in Latin America, the school has met previously in Mexico (1959, 1962), Rio de Janeiro (1960, 1963), and Buenos Aires (1961, 1964).

The detailed program and information on fellowships can be obtained from Professor M. Moshinsky, Chairman, Mexican Section of LASP, Apartado Postal #20364, Mexico 20, D. F.

Some thirty undergraduate grants will be awarded for the fourth annual Summer Institute in Space Physics. Sponsored by the National Aeronautics and Space Administration, and organized under the direction of Robert Jastrow and Gordon J. F. MacDonald, the institute will take place from July 6 to August 13 at Columbia University in New York City and at various field locations.

The first five weeks of the course will be devoted to morning lectures on planetary, atmospheric, and plasma physics, and afternoon lectures on astrophysics. During the final week, a field trip will be conducted to several national centers of space research.

Applicants must have a background equivalent to three years of college math and the physical sciences. Applications (deadline March 1) and requests for further information can be addressed to the Director, Summer Institute in Space Physics, Columbia University, New York, N. Y. 10027.