

college seniors and graduate science students may apply and (2) a postdoctoral fellowship program for scientists who have already received the doctoral degree. For first-year fellows, students entering graduate school for the first time or those who have had less than one year of graduate study, the annual stipend will be \$1600. For fellows who need one final academic year to attain a doctoral degree, annual stipends will be \$2000, with fellows between these groups receiving \$1800 annually. The stipends for regular postdoctoral fellows will be \$3800 per year. Dependency allowances for married fellows, tuition and fees, and limited travel allowances will also be provided. Applications for the 1958-59 National Science Foundation graduate and regular postdoctoral fellowship programs may be obtained from the Fellowship Office, National Academy of Sciences—National Research Council, 2101 Constitution Ave., N.W., Washington 25, D. C. The closing dates for receipt of applications are December 23, 1957, for postdoctoral applicants, and January 3, 1958, for graduate students working towards advanced degrees in science. The selections will be announced on March 15, 1958.

The other programs are: (3) a senior postdoctoral fellowship program for candidates who have held the science doctorate for a minimum of five years; and (4) a science faculty fellowship program for college teachers of science who wish to improve their competence as teachers. Both of these classes of fellows are awarded stipends adjusted to match as closely as feasible the regular salaries of the award recipients, up to a maximum of \$10 000 per year, and a travel allowance is usually made. Applications for the senior postdoctoral and the science faculty fellowships may be obtained from the Division of Scientific Personnel and Education, National Science Foundation, Washington 25, D. C. Completed material must be received not later than January 13, 1958. Selections will be announced on March 18 and 20, 1958.

Applicants must be American citizens who have shown special aptitude in science and will be selected on the basis of ability as evidenced by letters of recommendation, academic records, and other evidence of attainment. Applicants for predoctoral fellowships are required to take the Graduate Record Examination. Evaluation of fellows will be made by the National Academy of Sciences—National Research Council and the Association of American Colleges, with final selection being made by NSF. Those selected may attend any accredited nonprofit institution of higher education in the US or abroad.

Programs and Facilities

The University of Chicago has announced plans to build a high-speed digital computer based on the design of the MANIAC I (Mathematical Analyzer, Numerical Integrator and Computer) and MANIAC II developed at Los Alamos Scientific Laboratory under the direction of Nicholas C. Metropolis. Dr. Metropo-

lis, a group leader in the Theoretical Division at Los Alamos since 1943 (with the exception of a two-year period when he left Los Alamos to become one of the original members of Chicago's Institute for Nuclear Studies), has accepted a joint appointment as director of Chicago's new Computer Laboratory and as professor of physics in the University's Physics Department and the Enrico Fermi Institute for Nuclear Studies. In his capacity as director of the new laboratory, he will be responsible for the development and construction of the new computer which has been designated MANIAC III. Also coming to the University from Los Alamos is Walter Orvedahl, who will serve as chief engineer for the new Computing Laboratory. Mr. Orvedahl has had a major role in the design and development of the earlier MANIAC computers. The MANIAC III will be developed in consultation with the research physicists, astrophysicists, chemists, statisticians, and geologists who will use it for solving the complex mathematical problems occurring within their various fields. The new computer will require about two years for completion and plans for a new building to house the instrument and its associated equipment are now in the making.

Texas Technological College at Lubbock has inaugurated a new program which will offer a bachelor of science degree in engineering physics. The program, which is a joint undertaking of the Schools of Engineering and Arts and Sciences is designed to give students a background which will allow them to step directly into industry or study for graduate degrees in nuclear engineering or allied fields. C. C. Schmidt, head of the Texas Tech Physics Department, will serve as chief advisor for the program, which requires the equivalent of majors in three fields (physics, mathematics, and engineering) rather than one, and is so arranged that a student in either School can work into it after his first year without losing any academic credit.

Sylvania Electric Products Inc. broke ground on September 5 for a million-dollar addition to the firm's Physics Laboratory at Bayside, N. Y. The new 34 000-square-foot wing will be devoted to advanced studies leading to new and improved products and techniques in the fields of electronics and lighting, with particular emphasis given to solid-state research programs. Semiconductor and low-temperature solid-state physics will be stressed. The new building, which is planned for completion by the summer of 1958, will nearly double the laboratory's working space.

The Engineering Test Reactor, the Nation's largest and most advanced nuclear test facility, was placed in operation on September 19th at the National Reactor Testing Station, in Southern Idaho. The ETR, described by the Atomic Energy Commission as providing the "highest known neutron flux and largest known test spaces within an enriched uranium core where scientists and engineers can determine the effects of intense neutron and gamma-ray bombardment on material components," is expected to play a key role as a research tool in the development of economic nuclear power.



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**Vandaveer, Industrial & Engineering Chemistry, Vol. 22, page 596, June 1930.*

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A low-power research reactor for use in student instruction is to be installed in Cory Hall on the campus of the University of California at Berkeley. The 100-milliwatt reactor will be purchased from Aerojet-General Nucleonics and will be financed through use of \$95 000 of a grant of \$142 000 awarded to the University last May by the Atomic Energy Commission as part of an AEC program to help educational institutions equip laboratories for use in training nuclear scientists and engineers.

The Physics Department of the American University of Beirut, Lebanon, is currently undergoing a re-organization and expansion program and has announced that plans are now under way to provide research facilities in experimental solid-state physics. The department is also in the process of recruiting a limited number of experienced research physicists for its staff.

Nearly seven percent (142 000 persons) of a total of two million federal employees in 1953-54 were engaged in the conduct of research and development and related activities, according to a report released in October by the National Science Foundation. Approximately 37 000 were scientists and engineers and the remainder were supporting personnel. In addition to the 37 000 scientists and engineers, all of whom were engaged in scientific activities, another 65 000 were employed in construction and operations work. Included in the 102 000 total, 25 000 were physical and mathematical scientists, 70 percent of whom were engaged in scientific activities. The remainder (77 000) were either engineers or life or social scientists, about 25 percent of whom were employed in scientific work. Two percent (77 000) of all military personnel were also engaged in scientific activities. About 9000 were scientists and engineers, and the remainder supporting personnel.

Publications

The Proceedings of the First International Conference on the Peaceful Uses of Atomic Energy (Geneva, 1955) are now available in a microcard edition. The 16-volume set is being offered at a price of \$70 and may be ordered from The Chronicle of United Nations Activities, 234 West 26th Street, New York 1, N. Y.