Miscellany

Programs and Facilities

The Atomic Energy Commission has established a Neutron Cross Section Evaluation Center at the Brookhaven National Laboratory to provide a centralized source of information on neutron cross-section data needed by reactor engineers, designers, and physicists. Information will be available to the nuclear industry. Requests will be filled on a schedule of priorities based on the general importance of the data required and their availability. A fee may be charged if a request requires more than providing information which is readily available. At the Center, the recently formed Neutron Cross Section Evaluation Group, which comprises experimental and theoretical reactor physicists, will assess cross-section measurements and make theoretical extrapolations of data. The group also will undertake to determine the completeness of measurements on various materials and will keep in contact with current experiments to improve and broaden measurements knowledge. The information collated at the Center will be obtained chiefly from Commission laboratories, but also from other national and international facilities or groups engaged in neutron cross-section measurement studies. The Commission's Advisory Committeee on Reactor Physics will serve as a consultant body to the group and will assist in determining priorities for various critical evaluations and theoretical assessments. The Nuclear Development Corporation of America has agreed to provide consultant services. The Center will issue periodic reports including reviews of existing information on, and predictions of, nuclear cross-section properties of individual elements. Key data will be summarized in a newsletter to be published at intervals of two to three months. (Neutron Cross Section Evaluation Group Newsletter No. 1, (BNL-607-T178), was published in June, 1960, and is available from the Office of Technical Services, US Department of Commerce, Washington 25, D. C., at 50 cents a copy.) Inquiries regarding cross-section information should be directed to the Brookhaven Cross Section Evaluation Center, Building T-130, Brookhaven National Laboratory, Upton, Long Island, N. Y.

Baldwin-Wallace College of Berea, Ohio, dedicated a new science building, Wilker Hall, on Sunday, October 23. The building was built and equipped at a cost of \$825 000, of which \$500 000 was a gift from the late Arthur V. Wilker, former Baldwin-Wallace professor, in honor of whose parents the building is named.

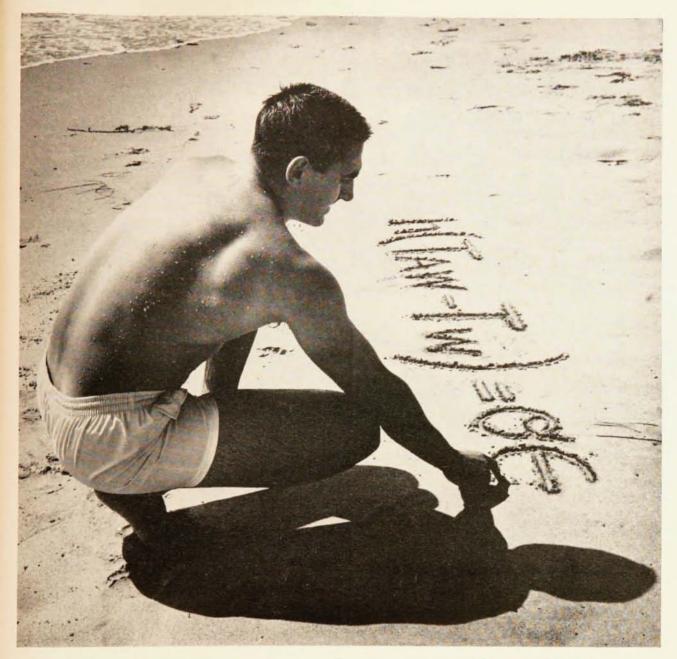
The structure includes classrooms, laboratories, workshop, and faculty offices for the chemistry and physics departments.

The University of Wisconsin has announced the selection of a site for a building to contain facilities for handling research equipment used in high-energy physics research. Financed by grants from the National Science Foundation and the Wisconsin Alumni Research Foundation, the new building will be constructed behind the Barley and Malt Laboratory on N. Walnut St. in Madison. It will house equipment associated with a hydrogen bubble chamber now being designed by the Midwest University Research Association (MURA) for eventual use with the Zero Gradient Synchrotron at Argonne National Laboratory. The Argonne accelerator, a 12.5-Bev proton machine, is now under construction at the Laboratory's site near Lamont, Ill.

Harvard University recently announced that the use of a new maser amplifier has increased the sensitivity of the University's radio telescope by a factor of ten. The maser is precisely tuned to a wavelength of 21 cm, the range of emission of the masses of interstellar hydrogen. The maser-equipped telescope is being used to study the gas content of various types of galaxies and to obtain more information about the high-frequency radiations of radio stars. One of the immediate tasks which has been set is a more precise determination of the distance from the earth to the sun, which is to be obtained by studying the Doppler shift in the wavelength of a given star's radio emission as observed from opposite sides of the earth's orbit. This determination is necessary for the more accurate calculation of the paths of deep-space rocket probes. A special receiver has also been built to detect Zeeman splitting in the hydrogen emissions. The Harvard astronomers hope to be able to measure interstellar magnetic fields with this equipment.

A two-day lecture program entitled, "Introduction to Plasma Dynamics" will be presented on January 9 and 10 at the Southern Methodist University School of Engineering by J. M. Burgers of the University of Maryland's Institute for Fluid Dynamics and Applied Mathematics. This advanced technology seminar will include discussions of ionized gas behavior, motion of gases under high vacuum, principles of magneto-gas dynamics, and plasma oscillations. Necessary notes will be furnished. For further information contact Dr. J. P. Holman, Department of Mechanical Engineering, Southern Methodist University, Dallas, Texas.

Armour Research Foundation, under sponsorship of the Wright Air Development Division's Materials Control, has begun a fundamental research program to determine the basic factors which influence the fracture of nonmetallic ceramic materials. The study, which will last eighteen months and cost \$460 000, will be conducted by a team of ARF researchers in physics, ceramics, metals, and mechanics and by scientists at universities and industrial laboratories in the United States and Europe. The research is primarily intended to study



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J. T. Jarman, Assistant to Vice President In Charge of Research Allis-Chalmers Mfg. Milwaukee 1, Wisconsin the complexities of the fracture of inorganic, nonmetallic ceramics when subjected to various stress fields, strain rates, corrosive attack, temperatures, prior loading history, and surface-active environments, as well as to investigate the effect of these influences on ceramic materials of different levels of impurities, various grain sizes, and varying shapes and configurations. Metallic oxides, titanium oxide, silicon dioxide, and lithium fluoride will be studied.

International

Grants by the Ford Foundation and the Rockefeller Foundation have enabled the University of Lovanium, near Leopoldville in the Congo, to reopen for the current academic year in spite of the disturbed condition of the country. The University, founded in 1954 as an affiliate of the Roman Catholic University of Louvain in Belgium, is the site of Africa's only nuclear reactor. The TRIGA reactor was built by General Dynamics in San Diego and was purchased by the former Belgian Congo government after being exhibited two years ago in Geneva at the second International Conference on the Peaceful Uses of Atomic Energy. The University, whose president is Belgian nuclear physicist Luc P. Gillon, has an enrollment of some 500 Congolese students and offers training in a variety of fields, including physics, chemistry, mathematics, and the medical and biological sciences.

The Asia Foundation announced in October that it has distributed a total of 1.75 million books to more than 3000 colleges, universities, libraries, and civic groups in Asian countries during the past six years. The volumes, distributed under the Foundation's "Books for Asian Students" project, were donated by publishers, libraries, university and college groups, and individuals in the United States. The Foundation is a nonprofit, nonpolitical organization established by private American citizens to support "individuals and groups in Asia who are working for the attainment of peace, independence, personal liberty, and social progress". While the donation of books in the physical sciences and scientific journals in runs of five years or more is particularly desired, the Foundation will welcome all college-level books in good condition which have been published within the past ten years. Works by standard authors are considered desirable regardless of date. On large shipments the Foundation will pay transportation costs from the donor to its office in San Francisco. All shipments or questions concerning categories, criteria, shipping, and program details should be addressed to Books for Asian Students, 21 Drumm Street, San Francisco 11, Calif.

Applications are now being accepted for Organization for European Economic Cooperation Senior Visiting Fellowships for 1961. About 25 awards will be made to US citizens or nationals for study in the physical, mathematical, biological, and engineering sciences under a program administered by the National Science Foun-