

WANTED: ENGINEER OR PHYSICIST

With a minimum of five years optical engineering experience for a permanent position as head of Research and Development Section. Position requires ability to supervise and co-ordinate electronic, optical and mechanical design of visual instruments, infrared seekers, aircraft periscopes, remote viewers and opto-mechanical systems. Familiarity with Government Agencies, specifications, requirements, etc., helpful. United States citizenship required.

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use of American science and industry. The volumes, which may be ordered from the Office of Technical Services, US Department of Commerce, Washington 25, D. C., include:

AEC-tr-2924 *Problems of Metallography and the Physics of Metals—Fourth Symposium*. Institute of Metallography and the Physics of Metals, Central Scientific Research Institute of Ferrous Metallurgy, USSR; 476 pp.; 1955; \$2.20.

AEC-tr-2855 *The Statistical Theory of Phase Transitions*; by B. T. Geilikman; 77 pp.; May 1954; 45 cents.

AEC-tr-2876 *Quantum Electrodynamics*, Parts 1 and 2; by A. I. Akhiezer and V. B. Berestetsky; 2 Vols., 549 pp.; 1953; \$2.65.

AEC-tr-2875 *Table of Coulomb Phases and Amplitudes Taking into Account the Finite Nuclear Size*; by L. A. Sliv and B. A. Volchok, Academy of Sciences, USSR; 21 pp.; 1956; 25 cents.

AEC-tr-2925 *All-Union Conference on the Application of Radioactive and Stable Isotopes in the National Economy and Science and Abstracts of Papers, First All-Union Conference on Radiation Chemistry* (2 reports, 1 vol.); Academy of Sciences, USSR; 451 pp.; 1957; \$2.20.

AEC-tr-2941 *Project of a 420 MW Atomic Electric Station*; Committee for Participation of USSR in International Power Associations; 22 pp.; June 1957; 25 cents.

Arthur H. Barnes, director of the Reactor Engineering Division at Argonne National Laboratory, Lemont, Ill., died on September 8 from a heart ailment. His age was 53. Born in Brainard, N. Y., Dr. Barnes received AB, AM, and PhD degrees from Columbia University, the latter having been awarded in 1933. After serving on the teaching staff at The City College of New York (1930-45), he became associated with the Clinton Engineering Works in Oak Ridge, Tenn. In 1947 Dr. Barnes joined Argonne's Reactor Engineering Division as a senior physicist. He was named associate director of the Division in 1951 and director in 1954. While at Argonne, he developed a direct current electromagnetic pump which is in operation at the Laboratory's Experimental Breeder Reactor at Arco, Idaho. Dr. Barnes was responsible for directing and coordinating work on the design and construction of Argonne's various types of nuclear reactors. He was a member of the American Physical Society.

Philip B. Bucky, professor of mining and former executive officer (1946-52) of the School of Mines at Columbia University, died on August 8 at the age of 58. Born in Chicago, Prof. Bucky received a BS degree from the University of Illinois in 1921 and the degree of Engineer of Mines from Pennsylvania State College (now University) in 1926. After serving as an assistant professor at Penn State until 1929, Prof. Bucky joined the staff of Columbia University, where he remained until his death, having attained the rank of full professor in 1942. In 1932, he invented a centrifuge which

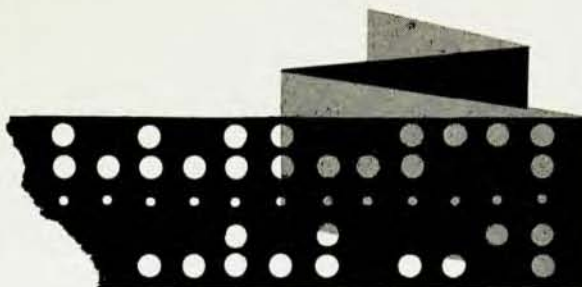
substituted centrifugal force for gravity to test the behavior of models under stress. Prof. Bucky was a member of the American Physical Society.

Irving Langmuir, internationally-known chemist, physicist, and Nobel Prize winner, died on August 16 after suffering a coronary thrombosis two days earlier while vacationing at Falmouth, Mass. His age was 76.

Born in Brooklyn, N. Y., Dr. Langmuir spent part of his youth in France, but received his high-school and undergraduate education in the US. In 1903 he received a metallurgical engineering degree from the Columbia School of Mines and then returned to Europe where he was awarded the PhD degree at the University of Göttingen in 1906. In 1909, after three years as an instructor in chemistry at Stevens Institute of Technology, he joined the General Electric Company's laboratories in Schenectady, N. Y., where he remained active until his death. After serving as assistant director (1909-32) and associate director (1932-50) of the GE Research Laboratory, he retired in 1950, but continued to act as a consultant to the company.

Dr. Langmuir was the recipient of the 1932 Nobel Prize in chemistry for his work in surface chemistry, the Hughes Medal of the Royal Society of London for research in molecular physics, and numerous other awards. Among his achievements were the development of the gas-filled incandescent lamp, the high-vacuum power tube, atomic hydrogen welding of hitherto unweldable metals, a screening-smoke generator for the military (in collaboration with Vincent J. Schaefer), and cloud-seeding methods for the artificial production of snow and rain developed with Dr. Schaefer and Bernard Vonnegut. To satisfy his own curiosity about natural phenomena, Dr. Langmuir conducted a number of odd researches. One of these was a study of the waves on Lake George in upstate New York, which convinced him that wind is responsible for many sincere reports of "sea serpents". On another occasion, he took time from his regular work to debunk a widely publicized claim that the deer-fly can travel at a speed of 800 miles per hour. Dr. Langmuir presented irrefutable proof that the deer-fly cannot possibly fly faster than 25 miles per hour. His contributions to pure scientific knowledge were of considerable importance. His studies on electron emission and on gaseous discharges are regarded as classics. His experimentation with oil films on water established surface chemistry as an entirely new branch of the science. Experimental techniques that he developed for studying proteins furnished a new and powerful attack on fundamental problems of the functions of the human organism and are now being used by biochemists and biophysicists throughout the world.

A member of many scientific groups in the US and abroad, Dr. Langmuir served as president both of the American Chemical Society and of the American Association for the Advancement of Science. He was a fellow of the American Physical Society.



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