

force, as well as design, application, and a search for new magnetic alloys.

New Laboratories

The new cryogenics laboratory at the National Bureau of Standards' site at Boulder, Colorado, has been placed in operation, according to an announcement made by the NBS in August. Designed under the direction of F. G. Brickwedde, chief of the NBS heat and power laboratories, the \$3.5 million installation will produce large quantities of liquid hydrogen and nitrogen and research will be conducted in the properties of matter at extremely low temperatures. The Bureau's program of fundamental research on the properties of liquid helium, superconductivity, second sound, paramagnetism, and other aspects of low-temperature physics is to continue at the Washington laboratories. The Boulder laboratory is located on the same site as that of the Bureau's new radio propagation laboratory, now under construction, and will have a staff of 60. The facility was created with the cooperation of the Atomic Energy Commission and is known as the NBS-AEC Cryogenic Engineering Laboratory.

A new Health Research Laboratory has been completed at the Los Alamos Scientific Laboratory using \$1.87 million of AEC funds. One of the two units to be housed there is the Industrial Hygiene Group, headed by Harry F. Schulte, which has responsibility for the investigation and control of hazards to health involving toxic materials of all sorts. The other, the Biological and Medical Research Group, under Wright H. Langham, deals with a number of problems among which are the biological effects and effectiveness of the various atomic radiations and the toxicology of plutonium, uranium, tritium, and other substances used at Los Alamos.

Equipment and Techniques

Nuclear magnetic resonance is the basis of a new, high-resolution instrument for rapid, nondestructive analyses of chemical bonding situations. The operation of the instrument is based on the sensitivity of nuclear magnetic resonance signals to chemical environment. Manufactured by Varian Associates, 585 Hansen Way, Palo Alto, California, under the name Model V-4300 High Resolution n-m-r Spectrometer, it can be used to identify components in a mixture and for the assignment of structural formulas to a compound. Further information may be obtained from the manufacturer.

The Model 103 10-channel pulse height analyzers developed at Los Alamos for nuclear research are being built on a limited basis by the Denver Research Institute. The Institute is licensed to construct these analyzers and will supply them to research groups who urgently require such apparatus. Further information may be had from the Electronics Division, Denver Research Institute, University of Denver, Denver 10, Colorado.

The Special Training Division of the Oak Ridge Institute of Nuclear Studies is continuing to offer its basic course in the techniques of using radioisotopes for research. The next three such courses start January 4, February 8, and March 15, 1954, and are four weeks long. Applications and supporting letters must be received three months before the starting date of the course, and as a rule applicants are expected to have advanced degrees or extensive research experience and to be in a position where they can train other persons. Further information can be obtained from the Special Training Division, Oak Ridge Institute of Nuclear Studies, P. O. Box 117, Oak Ridge, Tennessee.

Willoughby M. Cady, head of the fundamental development group at North American Aviation Corporation, died on June 29th in Huntington Memorial Hospital, Pasadena, California, at the age of forty-six. Dr. Cady received his PhD from Harvard in 1932 and subsequently studied at Caltech where he was a National Research Fellow. He taught physics at Clark and Cornell Universities and at the University of Washington. He had been head of the physics division at the Naval Ordnance Test Station during the three years before he joined the North American staff in 1949. His research was chiefly in the fields of spectroscopy, guided missiles, and applications of infrared radiation. Dr. Cady was a fellow of the American Physical Society and of the Optical Society of America; he was also a member of the American Association of Physics Teachers, the American Association for the Advancement of Science, and various other organizations.

John J. O'Neill, science editor of the *New York Herald Tribune*, died at his home in Freeport, Long Island, on August 30th. He was sixty-four. Mr. O'Neill, who had been in newspaper work for forty-five years, received the Pulitzer Prize in journalism (1937) for good reporting and the Westinghouse Distinguished Science Writing Medal of the American Association for the Advancement of Science (1946). He wrote popularized accounts of research in all branches of science that were both lucid and accurate, winning the respect of scientists and laymen alike for his conscientious reporting. He was a member of numerous scientific societies, a fellow of the American Geographic Society, and a charter member and former president of the National Association of Science Writers.

Ludwig Prandtl, internationally known expert on aerodynamics, died in Germany on August 19th. He was seventy-eight. During his life-time, Professor Prandtl had been director of the Kaiser Wilhelm Institute for Fluid Motion Research and of the Institute for Technical Physics at the University of Goettingen. He was an honorary member of the American Academy of Arts and Sciences and the recipient, in 1930, of the Daniel Guggenheim Gold Medal for "conspicuous merit" in aerodynamics.