#### we hear that

ployed by Micronetics, Inc, received his PhD in gaseous discharge physics from the Institute of Science, Bombay, India in 1970.

Scott L. Norman has joined the staff of General Telephone and Electronics Laboratories, Bayside, N. Y., where he will be responsible for optical data storage activities. He was formerly head of the advanced materials study group at GTE's Automatic electric laboratories in Northlake, Ill.

John W. Weil has been promoted to vicepresident of advanced systems and technology of Honeywell's computer business.

John A. Nation has been promoted to professor of electrical engineering at Cornell University. He is also a member of Cornell's Laboratory of Plasma Studies. where he is involved in research on plasma physics and relativistic electron

John K. Davis has been named chief. ophthalmic sciences for the optical products division of American Optical Corp. He was previously manager of lens technology there.

Fred L. Wilson has been promoted to administrative assistant to the dean at the National Technical Institute for the

Bodo Bartocha has been promoted to head of the office of international programs at the National Science Founda-

George M. Volkoff, previously head of the physics department of the University of British Columbia, is now dean of the faculty of science at the university.

The new president and chief executive of Tinsley Laboratories, Inc in Berkeley is Tuckerman Moss, formerly with Ealing Corp in Cambridge, Mass.

Rejoining the US Atomic Energy Commission in the division of controlled thermonuclear research is Stephen O. Dean. He was formerly with the Naval Research Laboratory.

The new vice-president of data systems development of Addressograph Multigraph Corp is Donald B. Brick.

obituaries

### Robert O. Haxby

Robert O. Haxby, a professor of physics at Iowa State University and a senior physicist at Ames Laboratory, died on 11 January of an apparent heart attack. Haxby, who was 59, was attending a meeting at the Argonne National Laboratory, where he was to present a paper, at the time of his death.

Associated with Iowa State since 1965, Haxby had previously been a member of the Purdue University physics faculty for nineteen years. Haxby had received both his MS and PhD degrees from the University of Minnesota. His research included nuclear physics, microwaves and radar.

#### Donald R. Hamilton

Professor of physics and former dean of the graduate school at Princeton University, Donald R. Hamilton, died on 4 January after a long illness. Hamilton was 57 years old.

Hamilton began his teaching career at Princeton, from which he had received his BA degree, as an assistant professor in 1946. In 1955 he was promoted to full professor and three years later he was appointed dean of the graduate school. He served in this position until 1965, when he resigned to return to the physics department.

Before joining Princeton, Hamilton was associated with war research projects at the Massachusetts Institute of Technology's Radiation Laboratory and with the Sperry Gyroscope Co. During World War II he was involved in the development of klystrons. At various times he was also a visiting professor at the Institute for Advanced Study, the Brookhaven National Laboratory and Stanford University.

#### Claude Bloch

The sudden death of Claude Bloch, on 29 December 1971 from a heart attack, is a major loss for French physics and the international scientific community.

Bloch's profound and original contributions to the theory of atomic nuclei and the structure of matter have had wide impact and enduring value. His "unified theory" of nuclear reactions and his contributions to the statistical theory of nuclei have become classics.

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The perturbation techniques he developed have led to a better understanding of the properties of solids and liquids. At the time of his death, he was deeply involved in studies of the distribution of wave modes, studies with applications extending from nuclear fission to acoustics.

Bloch thought and wrote with an unusual clarity and elegance. On occasion he was abstract, but he never lost sight of concrete problems. He had a love for physics that was broad and intense and a certain disdain for those whose approach to science did not meet his high standards. These sentiments were only partially hidden by a wry sense of humor and a detached manner.

Born in 1923, he was admitted to the Ecole Polytechnique in 1942, graduated at the head of his class and entered the select Corps des Mines. He completed his studies at the Bohr Institute in



BLOCH

Copenhagen (1948-51) and at the California Institute of Technology (1952-53). In 1953 he joined the Commissariatà l'Energie Atomique and began to lecture at Saclay on theroetical physics. His illuminating lectures had a major influence on the postwar renaissance of French theory.

Soon thereafter, Bloch took charge of the theoretical group at Saclay, which he led and developed for the next fifteen years. Drawn from many nations and many disciplines, his group became one of the most productive and renowned in France. With his encouragement, it developed extensive relations with laboratories throughout the world. He himself was constantly invited to lecture abroad, and spent terms as a professor at Princeton and Carnegie-Mellon Universities.

A year ago, he was appointed director of physics for the entire Commissariatà

l'Energie Atomique. Bloch approached administration as he approached physics-innovatively, decisively and with a knack for eliminating the extraneous. He guarded jealously and savored with obvious intensity the late afternoons and evenings, which he continued to devote to research.

R. BALIAN, C. DE DOMINICIS, V. GILLET, P. C. MARTIN Centre d'Etudes Nucléaires de Saclay

#### Elizabeth R. Graves

One of the first scientists of the Los Alamos Scientific Laboratory, Elizabeth R. Graves, died on 6 January at the age

of 55 after a long illness.

Graves, who had been associated with Los Alamos since 1943, was a group leader in the experimental-physics division there and was involved in research on neutron interactions with Before coming to Los materials. Alamos, she had been on the staff of the metallurgical laboratory at the University of Chicago, from which she had received her PhD in 1940. It was at Chicago that she first became interested in neutron physics, and it was there that she began her research on fast neutron measurement.

#### Frederick B. Llewellyn

Frederick B. Llewellyn, former assistant to the president of Bell Telephone Laboratories, died on 9 December at the age of 74.

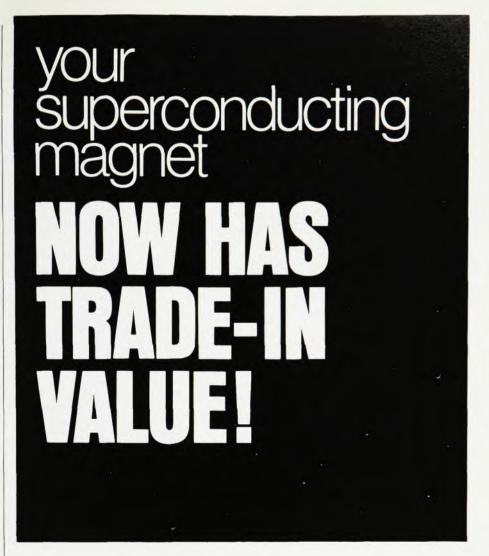
Llewellyn's association with Bell Labs dates back to 1923, when he joined the engineering department of what was then the Western Electric Co; Western Electric was incorporated into Bell Labs in 1925. At Bell Labs he was initially concerned with radio research and later with broadband amplification, signal-to-noise relations and high-frequency tube circuits. For his work on high-frequency electronics and constant frequency oscillators, Llewellyn received the 1935 Morris Liebmann Memorial Prize of the Institute of Radio Engineers.

After World War II, he became a consultant in the field of systems engineering and was especially concerned with transoceanic and land repeater transmission systems. He was appointed assistant to the president of Bell Labs in 1956, a post which he held until his retirement in 1961. After his retirement, Llewellyn was appointed scientific advisor to the director of the Institute of Science and Technology at the University of Michigan and later director of the Willow Run Laboratories at the university. In 1965 he became director of research for the Polytechnic Institute of Brooklyn for two years.

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