

we hear that

the subject of low-energy electron diffraction.

Germer was born in Chicago on 10 October 1896 and lived most of his childhood in Canastota, New York. He graduated from Cornell University in 1917, immediately joined what is now Bell Labs and then served in World War I as a fighter pilot on the western front where he obtained a citation from General Pershing. He returned to Bell Labs and obtained his PhD in physics from Columbia University in 1927. In that same year C. J. Davisson and Germer discovered that the electron can be characterized by a wave length, by observing low-energy electron diffraction from a nickel crystal. This work subsequently led to a Nobel Prize for Davisson, which was shared with G. P. Thompson. In the early papers on this subject Germer did experiments and pointed out the potential application of this technique for surface crystallographic studies of clean



GERMER

crystals and adsorbed species. His subsequent work was primarily involved with numerous applications of conventional 50-keV electron diffraction to crystal studies. At the time of his retirement from Bell Labs he was head of the contact physics department, which was formed to study the mechanisms that led to the degradation of relay contacts. His last three years at Bell Labs were devoted to the perfection of the low-energy electron diffraction display apparatus and research on surface structures with this apparatus. He then went to the department of applied physics at Cornell University where he maintained an active low-energy electron diffraction program.

He was a past president of the Ameri-

can Crystallographic Association, a fellow of the American Physical Society and the recipient of awards in recognition of his technical achievements. Lester Germer is best known by the great number of people he stimulated as a result of his curiosity, love of living and intense interest in sharing his excitement with others.

ALFRED U. MAC RAE
Bell Laboratories
Murray Hill, N. J.

Lucy J. Hayner

A professor emeritus of physics at Columbia University, Lucy J. Hayner died 23 September at the age of 73.

Hayner's teaching career at Columbia began in 1920 when she received her MA degree there. She left Columbia briefly to study in Cambridge, UK from 1924 to 1925 and then worked for three years in the research laboratory of General Electric Co on problems of electron emission in vacuum tubes. After returning to Columbia in 1929, she taught in and later headed the Ernest Kempton Adams Laboratory. A specialist in atomic and electronic physics, Hayner had also designed and constructed a circular Braille slide rule.

Finn J. Larsen

Finn J. Larsen, a vice-president of Toro Manufacturing Corp and former principal deputy director of defense research and engineering in the US Department of Defense, died 11 October of a heart attack. He was 55 years old.

Before coming to Toro in 1969, Larsen had also served the Defense Department as chief US representative to the NATO council of national armaments directors and to the NATO defense research group. Before his appointment with the defense department, Larsen had been vice-president of research and development at Honeywell, Inc, which he joined in 1948. While working for his PhD degree at Iowa State College, which he received in 1948, Larsen was instructor of physics there.

Junius B. Reynolds

Junius B. Reynolds, associate professor of physics at Washington University, St. Louis, died on 7 October at the age of 49.

After undergraduate training as an electrical engineer at the University of Utah, Reynolds switched into physics as a graduate student, receiving the MA degree from Utah in 1949 and the PhD for nuclear physics from Princeton University in 1955. For the next two years he remained at Princeton as a research associate in a group headed by Donald

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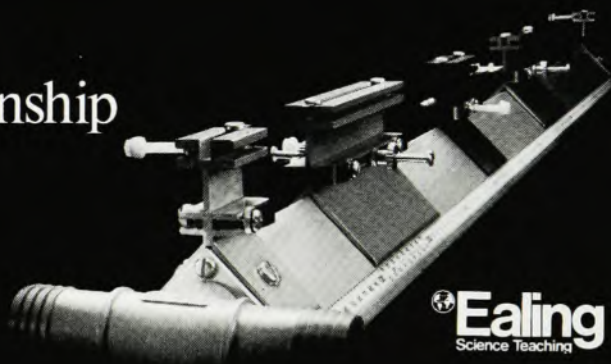
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we hear that

R. Hamilton doing molecular-beam research.

He joined the physics department of Washington University in 1957 and was the director of the university's cyclotron laboratory for the next ten years. During the latter part of this period Reynolds was responsible for initiating and planning an extensive conversion of the cyclotron to variable-frequency sector-focused operation, which greatly improved the usefulness and versatility of the machine for researchers in nuclear chemistry and physics.

Franz A. Bumiller

Franz A. Bumiller, professor of physics at the Naval Postgraduate School, died on 15 October at the age of 51. Born in Zurich, Switzerland, Bumiller received his PhD for nuclear physics in 1955 from the University of Zurich. The following year he came to the US and joined the high-energy physics laboratory at Stanford University, where he engaged in electron-scattering studies and made important contributions to our knowledge of the structure of the proton.

In 1962 he joined the faculty of the Naval Postgraduate School, where he soon began construction of a 100-MeV linear accelerator. This facility was completed a few years ago, and he continued his research interests in electron scattering and nuclear-structure physics as director of the accelerator laboratory. Bumiller was highly regarded not only for his research activities, but also for his great ability as a teacher. He will be missed by his many friends on both continents.

JOHN N. DYER

Naval Postgraduate School
Monterey, California

David L. Arenberg

David L. Arenberg, president and founder of Arenberg Ultrasonic Laboratory Inc, died 8 September at the age of 55.

Arenberg's laboratory, which will remain in business, is one of the key manufacturers of ultrasonic test equipment. His first achievement at the laboratory was the successful use of solid delay lines. He also designed the PG-650 oscillator and many other pieces of ultrasonic test equipment. Arenberg, who received an MA degree from Clark University in 1936 and an MS degree from the Massachusetts Institute of Technology in 1942, had received awards from the Acoustical Society of America and the Institute of Electronics and Electrical Engineers. □



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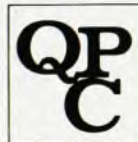
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