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Based on a Fermilab Symposium

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ready and he saw his way clear, he made decisions with alacrity and moved on to the next problem. He left the University after seventeen years as president with its every major area strengthened.

Even while serving as president, Harnwell continued to teach a general course in physics regularly. At the same time, his activities went far beyond the university. At the request of the Shah of Iran he helped set up a university along US lines in Iran, which later became Pahlavi University in Shiraz. He also served as president of the American Association for the Advancement of Science.

ALFRED K. MANN

CHARLES W. UFFORD

WALTER D. WALES

University of Pennsylvania

John Henry Dillon

John H. Dillon, president emeritus of Textile Research Institute, died in Clemson, South Carolina, on 28 June 1982.

Dillon graduated from Ripon College and carried out graduate studies in physics at the University of Wisconsin, receiving a PhD in 1931. He joined the physics research division of the Firestone Tire and Rubber Company, became head of that division in 1937 and assistant director of research in 1945. During his years at Firestone, Dillon and his associates were involved in research for the Manhattan project. He was also a key member of the polymer group of the U Government synthetic rubber program.

In 1946, Dillon became the first full-time director of the Textile Research Institute; and in 1959 its president. Under his guidance, TRI grew to become a major national center for scientific research in the field of textile fibers. His research embraced many fields, including crystal growth, photoelectricity, rheology of rubbers, mechanical properties of fibers and fabrics, and triboelectricity. He was the author of over 70 publications and numerous US and foreign patents.

LUDWIG REBENFELD

Textile Research Institute

Princeton, New Jersey

G. Howard Carragan

G. Howard Carragan, professor emeritus at Rensselaer Polytechnic Institute, died, at 86, on 26 July.

Carragan received a BS in mechanical engineering from RPI in 1918. After serving a brief time as an engi-

neer, he enrolled in a graduate program at the University of Chicago. A student of Albert Michelson, he received a PhD in 1925 for the first complete Zeeman spectrum of fluorine. He was a member of the faculty, at RPI, from then until his retirement in 1961.

During his tenure at Rensselaer he served as acting chairman and chairman of the physics department for over 20 years. Particularly interested in optics and astronomy, Carragan organized the Rensselaer Astronomical Society and instigated the design and construction of the Rensselaer Observatory in 1938. A collector of scientific treatises and instruments of the sixteenth to nineteenth centuries, he recently donated his collection to Rensselaer.

GERHARD L. SALINGER

Rensselaer Polytechnic Institute

Morris Perlman

Morris Perlman, a senior chemist at Brookhaven National Laboratory died on 21 June at the age of 65.

Perlman had been a member of the Brookhaven chemistry department since 1949. During the earlier years at Brookhaven he contributed importantly to several areas of research in nuclear chemistry, including the effects of radioactive decay processes on the extranuclear electrons in the decaying atom; the effect of the chemical environment on half lives and on internal conversion probabilities; the relative probabilities of electron capture and positron emission; and the fission of heavy nuclei by protons in the GeV range.

Since the late 1960s his interest in the effect of chemical environment on electron binding energies led him to

PERLMAN



concentrate his efforts on photoelectron spectroscopy (ESCA), specifically dealing with electronic structure and the binding of metals and alloys.

He was instrumental in stimulating the effort to build a synchrotron light source at BNL and played a leading role in planning and designing the National Synchrotron Light Source and its experimental facilities.

Perlman was born in Detroit in 1916 and grew up in Baton Rouge. He received his undergraduate education at Louisiana State University and obtained his PhD in physical chemistry at the University of California (Berkeley) in 1940. His thesis on the vapor density of iodine yielded a value for the faraday which remained the most accurate value for many years. Before coming to Brookhaven he worked at the US Bureau of Mines in Berkeley (1940-41), at the University of California Radiation Laboratory (1941-43), at the Los Alamos Scientific Laboratory (1943-46), and at the General Electric Research Laboratory in Schenectady (1946-48); he also taught at the University of Wyoming (1948-49).

Perlman combined an encyclopedia knowledge of chemical physics, high personal and professional standards, and great experimental abilities with an intense enjoyment of science.

L. M. CORLISS
G. FRIEDLANDER
R. E. WATSON

Brookhaven National Laboratory

Robert T. Young

Robert T. Young, a physicist with the Harry Diamond Laboratories until his retirement in 1969, died on 8 December 1981 in Austin, Texas.

Young was a native of Grand Forks, North Dakota, and a graduate of the University of Montana. He earned his doctorate at Harvard University. From 1935 until 1946, he was a teacher at the Worcester Polytechnic Institute and research associate at the Scripps Institute of Technology in Cambridge, Massachusetts.

Young was a research associate for the Naval Research Laboratory from 1946 to 1948, when he joined the National Bureau of Standards. His initial work there was devoted to microwave tube research. In 1953, his division was part of a mass transfer to the newly created Diamond Ordnance Fuze Laboratory (subsequently renamed the Harry Diamond Laboratories), a unit of the Department of Defense.

During the next decade he directed a broad program that included work in microwave tubes, Geiger-Müller photo-counters and cold-cathode gas-discharge tubes; basic studies on space-

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