sian scientific literature. His translations were found to have a meticulous precision, which earned him a reputation with editors as "the man to get" for the important works, particularly those in plasma and high-energy physics. Perhaps his most famous contribution is the six-volume series, "Reviews of Plasma Physics," edited by M. A. Leontovich and translated from the Russian by Lashinsky. The classic early Russian papers in this field were made available to the English-speaking scientific community through his work long before the subject achieved its modern popularity.

Less well-known was the fact that he had played piano in the Army dance bands and in the big bands at the end of his Army career. Here he crossed paths with, and became the friend of, Charlie Mingus, who was later to become an important figure on the pregressive jazz scene. Lashinsky was immensely proud of this friendship; to Mingus he was the "Professor."

Lashinsky was preparing a book on nonlinear periodic phenomena from a graduate physics course he gave at Maryland at the time of his death. His Institute colleagues hope to see to the eventual publication of this work.

L. C. KRISHER T. J. ROSENBERG University of Maryland

#### V. Robert Stull

V. Robert Stull was tragically killed by a truck while jogging in Santa Barbara last December. He was 49 years old.

Stull's distinguished career in physics and optics began with his graduation from the University of Scranton in 1953. He received his PhD in 1958 from the University of Pittsburgh and then joined the technical staff of the Aeronutronic Division of the Ford Motor Company. During these years at Ford he made significant contributions in the field of radiation transfer and infrared physics. He formulated one of the earliest models for the emission and scattering by solid particulates in flames and rocket exhausts. To this day, his work remains the standard reference in this area, as well as in the absorption of infrared radiation by Earth's atmosphere. He joined Defense Research Corporation (Flow General) in 1961 where he remained until 1970. Stull worked extensively on various government-funded programs, primarily relating to infrared and atmospheric physics. He later joined Science Spectrum as vice-president for advanced technology, where he directed a major effort in biophysics. This latter work laid the foundation for a new and rapid means for determining

suitable antibiotics for the treatment of critically ill patients. During the past six years Stull worked for the TEMPO Division of General Electric.

Stull was truly a Renaissance man of industrial physics. He was able to move rapidly into new areas of science and make significant contributions in relatively short periods of time. He was a hard task master for his staff, but always had their respect and admiration by the example of hard work that he set. I shall always remember Stull's repeated allusion to the fact that the nice things people say about us make us feel glad, but usually it is the disagreeable things they say that make us think. All of us who worked with him were enriched by his presence. Bob will be greatly missed by all of us.

> Philip J. Wyatt Science Spectrum Santa Barbara, Cal.

#### John W. Preiss

John Preiss died suddenly on 20 March 1980 at the age of 57. A pioneer in radiation biophysics, he was a physicist of the old tradition. He was first appointed to the physics department of the University of Delaware in 1962 and became a full professor in 1971. During that time he discovered the unique effect of the phenomenal increase of turbidity of RNA solutions to which basic globular proteins, structurally modified by heat or radiation, had been added. Out of this came the discovery that basic proteins interact with polyribonucleotides to form enormous lightscattering centers. For homopolymers, at a critical ratio to protein, the scattering power is especially high. Preiss saw in this a way to observe the action of temperature in effecting the change from a stacked-base structure to random coils; all this with simple and inexpensive equipment. Preiss clearly believed that the laws and beauty of nature are not hidden inside expensive instruments.

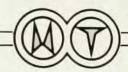
Immediately after World War II he entered Yale University on the GI Bill. As an undergraduate, he attracted the attention of his mathematics and physics professors with very original observations, put in characteristically refreshing language, on the subject under discussion. He went on to do graduate work at Yale under R. B. Setlow and obtained his PhD degree for studies in the vacuum ultraviolet.

A first-rate scientist, Preiss habitually approached a problem by first appraising the over-all situation and second, by carefully considering seemingly peripheral details that could easily be overlooked. Such an approach frequently yielded a rich har-

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## obituaries

vest of insight.

Preiss had many rich prejudices; they were part of his warm humanity. He was quick to detect pretension and bombast, which were alien to his essentially straight-forward and open na-

As a teacher of the honors course in general physics at Delaware for many years, his students appreciated his unstinting attention to their needs, his high standards and his ability to challenge them to do their best. With meticulously prepared lectures laced with humor, he inspired performance even beyond their expectation. Through personal effort and encouragement he guided a handicapped student all the way from high school to a PhD in physics at Princeton. He could detect talent others could not see and once, asked why he spent so much time on the kind of personal involvement, he replied: "That's what we are here for, isn't it?"

One suspects that when he left the Army and entered Yale he dreamed of being a scientist, a professor and a scholar. That is, in fact, exactly what he became. If we insert the qualifying word "good" three times, we have fully described, the man as he was at his death.

> Cheng-Ming Fou University of Delaware Ernest Pollard Duke University

## Preston Mayne Harris

Preston Mayne Harris, professor emeritus in the chemistry department of Ohio State University, died 10 June 1980 at the age of 78.

Harris earned his AB degree from Wittenberg College in 1924. State University granted him his MA and PhD degrees in chemistry in 1925 and 1928, respectively. Harris's first appointment after graduation was as a National Research Fellow in Physics at the University of Chicago in 1929. Subsequently, he was a research associate at Princeton University in 1930, a Loomis Institute Fellow in 1931 and a research associate at Ohio State University during 1932-34. Harris was appointed an instructor in chemistry at Ohio State in 1934, promoted to professor in 1945, and finally retired as emeritus professor in 1972.

Harris's research was concerned with methods for the determination of crystal structures by x-ray and neutron diffraction. As a part of that research Harris and his students developed explanations for the process of crystallization, order-disorder transformations

in solids and charge distributions and vibrations of lithium salts in the solid state. He also developed a photo cell for the Army's Engineering, Research and Development Laboratory.

Harris was a man who let the needs of his fellow workers and the administration interfere with his personal love of science. For example, he devoted months to the design of the large Evans Laboratory on the Ohio State campus, supervising in detail the plumbing, wiring and facilities in every room to make sure that the building would provide the maximum usefulness. And again, in the joint project between the Battelle Memorial Institute and the University to build a neutron diffraction facility at West Jefferson, Ohio, he confined himself to the drawing-board for over two years.

The scientific community regrets the passage of Preston Harris as a profound scholar, wise counselor and dedicated

> Dan McLachlan, Jr. Ohio State University

## Paul R. Yoder

Paul R Yoder, professor emeritus of physics at Juniata College, Huntingdon, Pennsylvania, died on 11 May 1980. Born in Kansas in 1899, he received his bachelor's degree from McPherson College in 1921 and his master's degree from the University of Kansas in 1922.

Yoder's career was unusual in that it combined activities of a teacher, administrator and ordained minister. His first position was professor of mathematics and physics at Blue Ridge College in Maryland from 1922 to 1926. He then accepted an appointment as head of the physics department at Juniata College and, except for a brief period during World War II, he remained there until his retirement in 1965. For the first 30 years of his tenure at Juniata, he functioned as the sole member of the Juniata physics faculty, beginning in 1926 when physics was considered a minor service-course discipline for a small college. With the heavy burden of being the "entire Physics Department" in those early years, he nevertheless inspired students (including me) to go on to graduate school and established the basis for the fully-staffed and well-developed physics program that exists today in the Juniata Science Complex. Yoder directed the summer sessions at Juniata from 1938 to 1943. In 1945, he supervised theory instruction at the US Navy Radio Schools in Bedford Springs and Hollidaysburg, Pennsylvania. Following this wartime service, he joined Pennsylvania State University faculty, but then returned to his former position at Juniata after a brief period.

In 1953, Yoder helped found and thereafter continued to support the Central Pennsylvania Section of the American Association of Physics Teachers. He was an active proponent of the establishment of Society of Physics Students and Sigma Pi Sigma chapters in the smaller colleges across the

An ordained minister in the Church of the Brethren since 1918, Yoder applied his talents not only in the classroom and administrative offices, but in the pulpits of numerous churches, primarily in central Pennsylvania, until his retirement from the ministry in 1976. His unusual combination of understanding and devotion to both science and religion was strongly felt by his students, many of whom have advanced in the field of physics armed with the technical fundamentals but. more importantly, with the inspiration formed by Yoder's personal attention in the classroom and laboratory. As time passes we look back with a greater appreciation of the guidance and advice provided by our first dedicated teachers. Yoder was a teacher of this kind. We will long remember him and strive to fulfill the goals and ideals he set for us early in our academic careers.

In keeping with his perennial interest in his students as individual people, a memorial scholarship is being established in Yoder's honor at Juniata Col-

Erwin L. Hahn University of California, Berkeley

#### Garnet A. Woonton

Garnet A. Woonton, emeritus professor of physics at Western Ontario University and a founding member of the Canadian Association of Physicists, died on 24 March 1980. He was 73 years old.

After earning his MA from Western Ontario in 1931, Woonton remained there to teach for the next 17 years. Then, in 1948, he joined the McGill University faculty, becoming director of McGill's Eaton Electronics Research Laboratory two years later. During this period Woonton served a year as president of the CAP. Throughout most of his career, Woonton concentrated his research efforts on magnetic resonance of gases, electron paramagnetic resonance and the application of microwave techniques to physical measurements. In 1969, he was appointed director of the Centre de Recherches sur les Atomes et les Molecules at Laval University, Quebec. Woonton rejoined Western Ontario in 1974.