

obituaries

Laboratory (1934–36) worked under Ernest Lawrence in the development of the cyclotron.

After serving as an instructor of chemistry and physics at Chicago (1936–41) and as senior physicist in that university's metallurgical laboratory (1941–43), he became section chief at Clinton Laboratories at Oak Ridge, Tenn. He worked as a technical expert at Hanford Engineering Works (1944–45) and the next year was a group leader at Los Alamos Scientific Laboratory during the development of the first atomic bomb. He became chief physicist at Oak Ridge National Laboratory in 1946 and served in that capacity until joining the Duke Faculty.

In postwar years, Newson had been involved in improving the precision of nuclear spectroscopy, initially through the acquisition and installation at Duke in 1951 of one of the first commercially produced Van de Graaff accelerators.

With AEC support, he established the Triangle Universities Nuclear Laboratory at Duke in 1966 and had since directed numerous experimentalists and theorists in nuclear-structure research based around a 15-MeV tandem accelerator and a 15-MeV cyclotron injector.



NEWSON

Newson's own research and the work of groups at Duke, the University of North Carolina at Chapel Hill and at North Carolina State University, Raleigh, have built a strong reputation for the regional facility.

From 1948 until his death, Newson had been consultant to ORNL and served similarly at Argonne and Brookhaven, and to the National Academy of Sciences in matters of nuclear physics.

J. H. Gibbons, one of Newson's first graduate students, said in his eulogy: "Henry taught me how to be professionally simple-minded—how to sort out the important things in dealing with problems. That is one of the most important lessons in learning to be a physicist, re-

flecting a point of view that nature is exquisitely and elegantly simple. He taught that scientific research can be pure, yet immensely relevant to fulfillment of human needs and to growth of human spirit . . . Newson was literally made of star dust."

The Newson family has established the Henry W. Newson Lecture Series Fund at Duke, which will enable distinguished physicists to address new generations of scientists. Contributions may be earmarked for the fund, c/o Department of Physics, Duke University, Durham, N.C. 27706.

EDWARD G. BILPUCH
Duke University

Vernet E. Eaton

Vernet Eller Eaton, Foss Professor of Physics Emeritus at Wesleyan University, Middletown, Connecticut, died on 18 May 1978 after a short illness. He was 82.

Eaton's particular interests included the physics of surfaces and thin films, and monomolecular layers, but it is as a teacher that he will be best remembered. He was a strong proponent of the demonstration lecture, and it was for these that he became famous to three generations of Wesleyan students. He was awarded the Oersted Medal for his outstanding contributions to physics teaching in 1955 and served on the Advisory Committee for NBC-TV's popular series "Continental Classroom" in 1958–59. The three lectures he delivered himself in this series were widely acclaimed and he made several nationwide lecture tours.

Eaton was born in Castleton, Indiana, in 1895, and earned his BA, MA and PhD degrees from Indiana University. After four years at Williams College, he joined the Wesleyan faculty in 1925. He became Foss Professor of Physics in 1946, a position he retained until his retirement in 1964.

JOHN S. MCINTOSH
*Wesleyan University
Middletown, Connecticut*

Gerald M. Rassweiler

Gerald M. Rassweiler, Fellow of both The American Physical Society and The Optical Society of America and retired Technical Director of Basic and Applied Sciences at the General Motors Research Laboratories, died 3 May 1978 at the age of 75.

A native of Chicago, Rassweiler graduated from Bucknell University in 1924 and received his PhD degree in Physics from the University of Illinois in 1928. That same year he joined the General Motors Research Laboratories and began

research on the fundamental structure of hydrocarbons by Raman spectroscopy. He is, perhaps, best known in the scientific community for his work with L. L. Withrow on the study of combustion and flame propagation in an operating internal-combustion engine by emission and absorption spectroscopy and high-speed cinematography. This pioneering work on engine-fuel relationships contributed greatly to later developments in high-compression engines and high-octane, lead-free fuels. Their paper on this work entitled "Motion Pictures of Engine Flames Correlated with Pressure Cards" won the Horning Memorial Award of the Society of Automotive Engineers in 1939.

In 1939 he was named assistant head of the physics-instrumentation department of the Laboratories, where he administered and guided research in infrared and



RASSWEILER

atomic-emission spectroscopy, ultrasonics, electron microscopy, electronics, and low-energy radioisotopes for industrial inspection and process control. The research in infrared spectroscopy under his guidance represented a very early, if not the first, industrial effort to develop equipment and procedures for the now standard and widely used methods for analyzing hydrocarbons in fuels and engine exhausts. During this period, he was instrumental in the formation of the General Motors Spectrographic Committee, which developed methods and procedures for chemical analysis by atomic-emission spectroscopy. He was a co-inventor of the Sonigage, an acoustic instrument for locating internal imperfections in metals and for measuring thickness when only one surface is accessible. He was also active in the Society of Applied Spectroscopy and was a founding member and chairman of the Detroit section of the OSA.

In 1957 he was named head of the physics department. Much of his expe-

rience in this role of administrator of industrial-physics research was summarized in a paper he prepared for PHYSICS TODAY in 1960 on "The Role of Physicist in the Automotive Industry." In 1963 he became Technical Director of Basic and Applied Sciences for the General Motors Research Laboratories. In this position he directed the programs of the physics, chemistry, electrochemistry, electronics and instrumentation, fuels and lubricants, and polymers departments until his retirement in 1967.

After retirement he continued a keen interest in science and optics. After completing his book on a history of infrared developments in General Motors entitled *Retrospect*, he pursued his long-standing interest in optical effects in the open atmosphere, and an achievement of great personal satisfaction to him was his successful photographic recording of the elusive "green flash."

A warm, gracious, and understanding person, Gerald Rassweiler will be long remembered by his colleagues, not only for his contributions to science and technology, but also as friend and valued counsellor. His life was as full and exciting as the era of physics it spanned.

WILLIAM L. GRUBE
DAVID L. FRY

General Motors Research Laboratories
Warren, Michigan

Howard C. Hoyt

Howard C. Hoyt, Emeritus Professor of Physics, Wayne State University, died 9 October 1977 in Detroit, Michigan.

After graduating with a life teaching certificate from Western State Normal School (now Western Michigan University), Hoyt pursued his goal of a PhD in physics over the next 22 years. During this period, he was principal of a high school for the blind, a sales engineer, an instructor at Western Reserve, an undergraduate at the University of Michigan (receiving his AB in 1917) and a teacher of high-school physics. In summers and with leave time he obtained his MS and PhD degrees from the University of Michigan, the latter in 1935.

He began his long association with what was to be Wayne State University as an instructor in 1934. During his 28 years at Wayne, he contributed much to the transition from a bachelor-degree-granting department to a research-oriented PhD department. He also served as its acting chairman on several occasions. His area of research was x-ray crystallography.

Hoyt was universally liked and respected by his colleagues in the Physics Department, in other departments, and by his students. His personal life was marked by tragedy, as his wife suffered increasingly from multiple sclerosis from

shortly after their marriage until her death. His patient, modest, and courteous manner, as well as his dry humor, impressed all who knew him, and contribute to our sense of loss.

HARRY H. DENMAN
Wayne State University
Detroit, Michigan

Rudolf Kompfner

Rudolf Kompfner, electrical engineer, physicist and inventor of the travelling-wave tube, died on 3 December 1977.

He was born in Vienna in 1909 and earned a diploma in architecture from Vienna Technical University in 1933. From 1934 to 1941 he practiced as an architect in England. Then, in 1941, he joined a British Admiralty research group working at the University of Birmingham on microwave radar. It was during his three years at Birmingham that he invented the travelling-wave tube, which was to become very important as a microwave amplifier.

Kompfner stayed with the Admiralty (working at Birmingham and, later, at Oxford) until 1951, when he joined Bell Telephone Laboratories. He remained with Bell Labs until 1973, and during those years he invented the backward-wave oscillator, was responsible for the Telstar communications satellite and carried out important work in radioastronomy.

After retiring from Bell Labs, for the next three years Kompfner divided his time between Oxford University, where he was professor of engineering, and Stanford University, where he was professor of applied physics.

During his career Kompfner received many awards, including the President's Award for Achievement in Science (1976), and he was a member of both the National Academy of Sciences and the National Academy of Engineering.

Michael Nessin

Michael M. Nessin, professor of physics at City College of the City University of New York, died 20 November 1977 at the age of 62.

Nessin was born in the Ukraine; he graduated from the Ukrainian State University in Dniepropetrovsk in 1939 and from Columbia University in 1960 with a PhD in nuclear physics. In that year he joined the faculty of City College, City University of New York as assistant professor of physics, while continuing his research at Columbia. Since 1965 he concentrated entirely on teaching, becoming an associate professor at City College in 1971 and remaining there until his death. □

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