

honored by the University with an appointment as distinguished professor in the College of Sciences and Humanities.

Although trained primarily in the techniques of x-ray diffraction by crystals, he was originally associated with the Plant Physiology Section of Iowa State's Chemistry Department. He managed nevertheless to apply diffraction techniques to the problems of the structure of starch and its deep blue complex with iodine, and thus produced what was probably the first substantial evidence for the existence of a helical structure in a natural product. After his return from Princeton in 1946, his work at Ames spread into most branches of inorganic solid-state chemistry and included investigations of intermetallic and interstitial compounds, hydrogen-bonded substances, compounds of uranium and thorium, and the so-called "electron-deficient" compounds. He expanded his experimental techniques to include neutron diffraction and magnetic measurements, and thus to observations on magnetic order in solids.

Dr. Rundle spent the 1958-59 academic year on leave of absence from Iowa State as a National Science Foun-

dation postdoctoral fellow at the Clarendon Laboratory, Oxford. In 1960, he went to Japan for a year as a Fulbright lecturer in Osaka.

A member of the American Crystallographic Association, Dr. Rundle served as that organization's president in 1958. He was a fellow of the American Physical Society.

Karl W. Brockman

Karl W. Brockman, senior physicist at the Institute for Nuclear Physics Research in Amsterdam, died at the M.D. Anderson Hospital in Houston, Texas, on September 24. He was thirty-seven years old.

Born in Fort Worth, he entered Rice University in 1943, interrupted his studies from 1944 to 1946 to serve in the Navy, and graduated with honors in 1949. He earned his PhD at Princeton University in 1953.

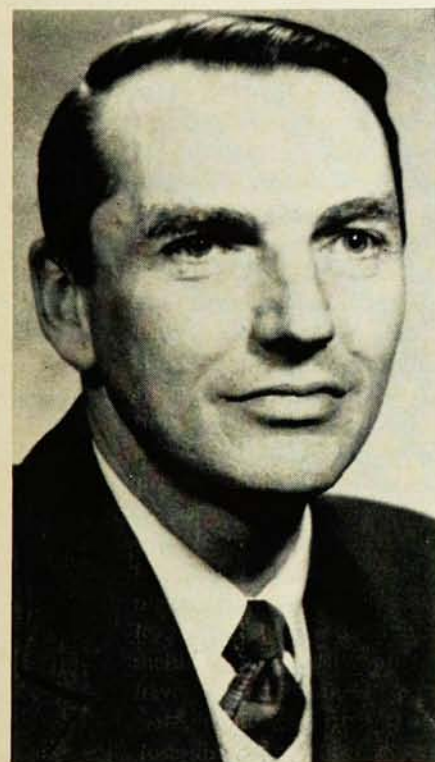
Dr. Brockman served as an instructor at Princeton until 1957, when he went to the Netherlands to join the Institute for Nuclear Physics Research. He became a member of the Institute's permanent staff as a senior physicist in 1959, and in that capacity he directed and supervised much of the research work on nuclear reactions. His main research interest centered around the few-nucleon systems, and in the last years of his life he was concerned with many of the fundamental problems in nucleon-nucleus interactions.

Dr. Brockman was a member of both the American Physical Society and the Netherlands Physical Society.

Clarence W. Kanolt

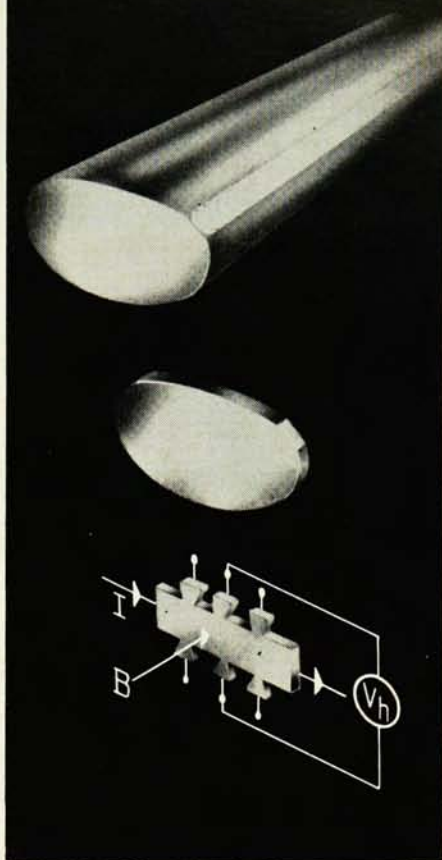
Clarence W. Kanolt, a research physicist with the Farrand Optical Company in New York City for the past twenty-two years, died on November 28 while visiting in Pittsfield, Mass.

He was born in Susquehanna, Pa., on August 14, 1880. Educated at Columbia University, he received his bachelor's degree there in 1902 and his PhD in 1905. The next year he became an instructor in chemistry at Western Reserve University, and in 1909 he joined the National Bureau of Standards as an assistant physicist. Dr. Kanolt remained with the Bureau for



Robert E. Rundle

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sixteen years, and during the period from 1919 to 1925 served as chief of the NBS Cryogenic Laboratory.

After leaving the Bureau, he joined the physics staff of the US Bureau of Mines, where he also headed a cryogenics laboratory. He subsequently served for several years as a technical adviser to the Perser Corporation of New York City before joining Farrand in 1940.

Virginia F. Griffing

Virginia F. Griffing, professor of chemistry at the Catholic University of America in Washington, D.C., died on September 5 while vacationing in Canada. A physicist as well as a chemist she was the first woman to become a member of the Physics Department faculty at Catholic University. She had also been a consultant to the National Bureau of Standards since 1958.

Miss Griffing was born in Lexington, Ky., on August 19, 1917. She received her bachelor's degree from the University of Kentucky in 1939, an MA degree in 1940 from Mt. Holyoke College, and her PhD in physics from Catholic University in 1947.

After teaching for a time in Kentucky public schools, she joined the faculty of Morehead State Teachers College in Kentucky where she served from 1941 to 1943 as an instructor in mathematics and physics. She was appointed to an assistantship in physics at Catholic University in 1943 and became an instructor in the Department three years later. She began teaching chemistry at the University in 1947, and became assistant professor in 1951, associate professor in 1953, and professor in 1957.

Dr. Griffing made a number of contributions to both physics and chemistry. Her early work, in association with the late Rev. Francis E. Fox, centered around the theory of ultrasonic absorption in liquids, with emphasis on the question of how chemical effects are produced by ultrasonics. After 1955, most of her work was directed towards a better understanding of the reactive interactions between atoms and molecules, and she applied quantum-mechanical methods in attempting to clarify concepts in chemical kinetics through the study of simple

systems of atoms and molecules using a priori molecular-orbital calculations. Her wide range of interests led her occasionally into borderline areas such as that represented by a paper on the "Property of Human Serum Albumen to Conceal Visible Evidence of Bacterial Contamination" which was an application of light-scattering theory to an important medical problem.

From 1944 to 1956, Dr. Griffing held a civilian post in the US Navy's Office of Scientific Research and Development. She was a member of both the American Physical Society and the American Association of Physics Teachers.

Charles B. Crofutt

Charles B. Crofutt died on September 27 at the age of sixty-seven. He was a professor of physics at the University of Maine in Orono and a specialist in x-ray spectroscopy.

Born in Montour, Iowa, he received his AB degree from Cornell College in Iowa and his MS and PhD degrees (the latter in 1925) from Iowa State University. He spent the next three years at the University of Arkansas as an instructor of physics and then went to Maine in 1926 as an assistant professor of physics. He was promoted to associate professor in 1927 and to full professor in 1948.

Professor Crofutt was a member of the American Physical Society, the Optical Society of America, and the American Association of Physics Teachers.

Sir Leonard Bairstow

Sir Leonard Bairstow, one of the early pioneers in the study of aerodynamics and aeronautics, died in England on September 8. He was the author of *Applied Aerodynamics*, published in 1919 and considered by many to be the first comprehensive text on this subject.

He was born in Halifax, Yorkshire, on June 25, 1880, and attended the Royal College of Science, London, where he obtained a diploma in mechanics. He then worked, until 1919, at the National Physical Laboratory at Teddington, where he was mainly concerned with mathematical analysis of the stability of airplanes. He helped