

MS in physics in 1947, and a PhD in physics in 1951. At Wisconsin he did experimental work on electrostatic generators and on the energy levels of light nuclei.

For the next several years he was employed by North American Aviation, first as a research engineer in the Atomic Energy Research Department and later as an experimental physics group leader. In 1958, he joined North American's Atomics International Division as a nuclear specialist. His work included studies on the detailed technical and economic comparison of different reactor types and on future American and world energy requirements, with specific reference to known resources of fossil and nuclear fuels, and he was responsible for critical experiments, exponential experiments, and related reactor physics studies. He also served on an Atomic Industrial Forum subcommittee that was concerned with a standard form for reactor evaluation. For several years he was an instructor in the Engineering Extension Division of the University of California at Los Angeles. He joined the Marquardt Corporation in 1961 as manager of the power conversion research program which emphasized work in thermionics and magnetohydrodynamics.

Dr. Laubenstein was a member of a number of scientific organizations, including the American Physical Society.

Charles B. Sawyer

Charles B. Sawyer, a physicist, metallurgist, and businessman who played a pioneering role in the founding and development of the beryllium industry, died at his home in Cleveland, Ohio, on March 25. He was 69 years old.

A native of Cleveland, he graduated from Yale University in 1915 and received his PhD from the Massachusetts Institute of Technology in 1921. In the latter year he became an associate of Charles F. Brush, Jr., in the Brush Labs Company and he subsequently served as president of the firm. It was followed in the early thirties by the Brush Beryllium Company, of which Dr. Sawyer was president, and the Brush Development

Company, in which he served as vice president and director. In 1952, the Clevite Corporation was formed with Dr. Sawyer as a director, a position he held until his death. He was also president of Sawyer Research Products, Inc., which he founded in 1956.

Dr. Sawyer was a member of a number of scientific and professional organizations, including the American Physical Society and the American Society for Metals.

Lynn H. Rumbaugh

Lynn H. Rumbaugh, research director of Research Analysis Corporation, died on March 11 at his home in Bethesda, Md.

Dr. Rumbaugh was born in Ira, Iowa, 60 years ago. He graduated from Miami University in Oxford, Ohio, in 1928, and continued his studies at the California Institute of Technology, where he received his PhD in physics in 1932. He then went to the Bartol Research Foundation, first as a National Research Council fellow and later as a Bartol research fellow. From 1937 until 1946, Dr. Rumbaugh was associated with the Department of Physics at the University of Minnesota progressing from assistant professor to professor.

In 1940, he became involved in defense work at the Naval Ordnance Laboratory, where he headed the Measurements Section and served as principal physicist in NOL's Mine Countermeasures Unit. In 1941-42, he was in charge of the Navy's Underwater Defense Group in Pearl Harbor, and for a time was assigned to the Allied Naval Forces in the Southwest Pacific as a scientific adviser for harbor defenses and undersea warfare. He headed NOL's Research and Torpedo Engineering Division from 1942 to 1945, led the Research Department from 1945 to 1950, and in the period 1948-50 served as deputy technical director of the Laboratory.

Dr. Rumbaugh joined the Johns Hopkins University Operations Research Office in 1950, and four years later became its associate director. He served as acting director in 1961 when the office was in the process of reorganizing itself into Research Analysis Corporation, and was subsequent-

ly named director of research. He was a fellow of the American Physical Society and a member of the American Geophysical Union and the Washington Academy of Sciences.

Charles J. Gallagher, Jr.

Charles J. Gallagher, Jr., assistant professor of physics at Columbia University, was shot and killed by an unknown assailant in New York City's Central Park on April 14.

Dr. Gallagher, who was 31, was born in Norwalk, Conn. He received his BA degree in 1954 from the University of Connecticut and his PhD in physics from the University of California in 1957. He spent the next two years at the California Institute of Technology as a research fellow, and, in 1959, went to the Bohr Institute for Theoretical Physics in Copenhagen under a National Science Foundation fellowship. He joined the faculty of Columbia as a research associate in 1961, and was promoted to assistant professor last year.

Dr. Gallagher was a member of the American Physical Society.

Henry J. Hrostowski

Henry J. Hrostowski, associate professor of physics at the University of Oregon, died in Eugene, Ore., on March 15. He was 39 years old.

Dr. Hrostowski was born in Hartford, Conn., and studied at Wesleyan University, where he received his bachelor's degree in 1947. Oregon State College awarded him his MS degree in 1949, and he received his PhD degree from the University of California at Berkeley in 1953.

From 1952 to 1960, he was a member of the staff of Bell Telephone Laboratories, where he worked on the optical and galvanomagnetic properties of semiconductors. He was among the first investigators to study the "three-five" compound semiconductors.

He joined the Physics Department faculty at Oregon in 1961, after having spent one year as a member of the laboratory staff of Atomics International in Canoga Park, Calif.

Dr. Hrostowski was a member of the American Physical Society.