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MEMORIAL OF SAMUEL ZERFOSS

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Dr. Samuel Zerfoss, a Fellow of the Mineralogical Society of America and Chief of the National Bureau of Standards Refractories Section, died on December 19 from injuries received in a tragic pre-holiday automobile accident in Washington, D. C. The day before he and two colleagues were enroute to Baltimore where Dr. Zerfoss was to have been honored with the office of Chairman Elect of the Baltimore-Washington section of the American Ceramic Society. Moments after leaving the Bureau of Standards an irresponsible driver raced through a stop sign and crashed into the official car containing Dr. Zerfoss and his associates.

Dr. Zerfoss was born on November 1, 1912, at Hummelstown, a small community located in the hills of Pennsylvania. The rocks, the minerals and the ores of the nearby hills undoubtedly did much to influence his interests in the earth sciences. In 1930 he began his formal education at the School of Chemistry and Mineral Industries at the Pennsylvania State College. Here he received a Bachelor's degree in chemistry in 1934 and a Master's degree in 1936. His potential as a research worker and as a teacher was early recognized by the university and he was invited to become a member of the staff. From 1937 to 1947 he held the Bethlehem Steel Fellowship doing research on refractories, slags, high temperature mineralogy, and chemistry. A Doctor's degree in ceramics was awarded him in 1941. Dr. Zerfoss was made an Associate Professor of Ceramics in 1942, teaching both graduate and undergraduate courses. In addition to his work with students, this was a period highly productive in personal research. His contributions ranged over the areas of microscopy, phase equilibria, chemical analysis, mineralogy, and metallurgical inversions. In addition to six major publications, he supervised an industrial fellowship and was involved in numerous problems concerned with stimulating industries utilizing Pennsylvania natural resources.

In 1947 Dr. Zerfoss accepted a position with the Naval Research Laboratory in Washington, D. C., to head a program of fundamental research on a wide variety of materials preparation including crystals, glasses, and ceramics needed for both defense and commercial peacetime uses. It was during this period that he established for himself, his colleagues, and the laboratory an international reputation for materials research, especially in the field of crystal growth. His publications on the fundamentals of crystal growth are classic to this day.

In April 1955 Dr. Zerfoss joined the staff of the Mineral Products Division of the National Bureau of Standards. Four months later he was appointed Chief of the Refractories Section, where he directed a program

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of fundamental research on the properties of materials at high temperatures. His reputation in this field grew with each passing year, and in 1956 he was appointed a U. S. member of the International Union of Pure and Applied Chemistry, and a member of the High Temperature Committee of this group. Dr. Zerfoss contributed his time and his talent to several scientific organizations. He was a Fellow of The American Ceramic Society and The Mineralogical Society of America. He held membership in The American Chemical Society, The Geological Society of Washington, The Washington Academy of Science, The Chemical Society of Washington, The Geochemical Society, The Societe Chemique de France, Sigma Xi, and Sigma Pi Sigma.

In personal life Dr. Zerfoss was known to all his friends as Sam. He was modest in his approach to others, humble in his evaluation of himself, and generous to those who needed advice or help. Sam, a bachelor, was an avid collector of books, magazines, records, minerals and, most important to him, friends. He took great delight in entertaining at his new home that he recently bought. A dinner, complete with all the trimmings, prepared and served by Sam was a topic for continued conversation. He was a member of several groups outside the scientific community; to mention a few, The Washington Opera Society, The Museum of Modern Art, The Theater Guild, and The Metropolitan Opera Guild.

Dr. Zerfoss is survived by a sister, Martha, of Philadelphia, and two brothers, George Zerfoss, a Nevada mining engineer, and Commander Allen Zerfoss, U.S.N., San Pedro, California.

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