

we hear that

joined Brookhaven National Laboratory as a research associate. He subsequently was named associate chemist, chemist, and senior chemist. He was appointed deputy chairman of the chemistry department in 1968.

During his years at Brookhaven Hamilton was responsible for developing a group that was one of the foremost in the world in the applications of neutron diffraction techniques to the solution of important problems in chemistry and biology. His classic work on hydrogen-bonded systems has been of utmost importance to modern chemistry and biochemistry. At the time of his death he had nearly completed a systematic study of the precise molecular and crystal structures of the naturally occurring amino acids, the building blocks of proteins.

Hamilton's mathematical abilities were unusual. Though trained as a chemist, the first of his three books, *Statistics in Physical Science* (1964), is purely mathematical in content. It displays his unusual talents for making mathematics intelligible and usable for those less gifted than he. Concomitant with his mathematical abilities were his considerable program talents. During Hamilton's career at Brookhaven he wrote a number of computer programs that are in general use within the scientific community. He was instrumental in developing the computer-controlled diffractometer system at the High Flux Beam Reactor at Brookhaven, wherein several diffractometers are controlled by a time-sharing computer. At the time of his death Hamilton was actively engaged in the problems of remote computing and display, attempting to develop the Brookhaven computer as the center of a network that would serve the crystallographic community.

Hamilton was both a superb scientist and a superb administrator. Included in his many administrative contributions to crystallography were his presidency of the American Crystallographic Association in 1969 and his long-term position as co-editor of *Acta Crystallographica*. In 1969 he was local chairman for the Eighth General Assembly and Congress of the International Union of Crystallography held at SUNY, Stony Brook.

These basic facts do not provide a true measure of the important role that Hamilton served within the scientific community. He was ever enthusiastic and generous. He gave freely of his time to help others in their scientific work. His skills were always evident when difficult scientific problems arose in private discussions or at meetings. But more important than being a

highly esteemed colleague to those of his age and experience, he was a continual source of inspiration to aspiring young scientists, primarily because of his enthusiasm and his gentle nature. He was that rare type of individual who could communicate with young and old alike and infect them with his enthusiasm for work well done.

JAMES A. IBERS
Northwestern University

Howard Jerry Foster

Howard Jerry Foster, chairman of the department of physics and mathematics at Alabama A&M University, died on 23 January 1973. At the time of his death Foster was on the advisory board of the Danforth Foundation, Trustee for the Roxbury Medical-Technical Institute of Boston, Massachusetts, and a member of the American Physical Society's Committee on Minorities in Physics.

Howard was a school "dropout." After serving in the Armed Forces, he returned to earning a living and then entered high school, earned some support as a gospel singer, and attended college at Fisk University, Nashville Tennessee, where he earned the BA (*magna cum laude*) and MS degrees (straight "A" average) in physics. In 1964 he received a PhD in physics from



FOSTER

the Catholic University of America, with special citation for outstanding academic performance. Prior to joining the staff at Alabama A&M University in 1965, Foster held a position as solid-state physicist in the Institute for Materials Research at the US National Bureau of Standards. He also held many consulting and part-time professional positions, including among them



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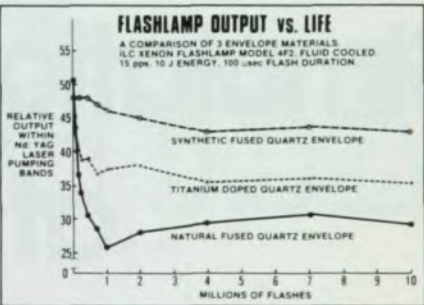
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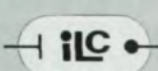
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positions as consultants both to NASA and the Atomic Energy Commission; a visiting professorship at the Massachusetts Institute of Technology (fall, 1970), and visiting lectureships at both the University of Alabama in Huntsville and the University of Georgia.

Foster's past work activity included teaching at the undergraduate and graduate levels in physics and mathematics; consulting in environmental sciences; work in atomic energy; environmental control (space program); missile vibration shielding; prospecting for mineral resources from outer space; defense against sophisticated missile attack (Safeguard); laboratory director for high-temperature studies of missile nose-cone materials and nuclear fuels; electron microscopy and diffraction; thin films and crystal growth, and theoretical and experimental studies of Fermi surfaces in metals.

Foster's recent work activity included quantum theoretical and experimental studies of Fermi surfaces and electronic properties of metals; work in crystal growth and purification of metals and alloys; consulting in some of these areas; teaching and service as chairman of the department of physics and mathematics at Alabama A&M University, where he supervised 17 full-time faculty and staff members and was responsible for curriculum revision and development in physics and mathematics. He was actively engaged in several local (state) and national organizations that are responsible for the future direction of science and general education at the secondary level and in higher education in the US and Canada.

The tremendous contribution to physics, to science, research, technology, design and invention and to humanity deserves emphasis here—to his native state of Alabama, to his country, to all people—contributions through his knowledge, his creativity, and his dedication. He had a unique ability to knit together diverse groups of people—physicist and layman, black and white, northerner and southerner. This talent was in large part simply a measure of his ability to communicate effectively, whether speaking with his scientific peers on shrinkage of the Fermi surface or with his fellow blacks on the impact of science training on black pride. It is a talent that did much to enhance the prestige of physicists among various minority, ethnic and geographical groups. Foster exemplified and demonstrated the possibility of implementing the great American dream.

WARREN E. HENRY
Howard University □

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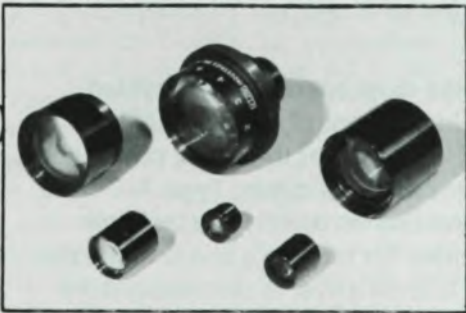
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