

search consequences of this use included a revolution in the conceptual framework of the theory of magnetic materials.

Because of his expertise in rare-earth chemistry, Spedding was asked by Arthur H. Compton (then director of the metallurgical laboratory of the University of Chicago) to develop a process for making pure uranium metal for the national atomic-bomb effort. In collaboration with H. A. Wilhelm (then an assistant professor of chemistry at Iowa State and the local expert in metallurgy, and subsequently professor of chemistry and metallurgy and associate director of the Ames Laboratory until his retirement in 1972), he invented processes for making both pure uranium and pure thorium metals, and supervised the production of over a million pounds of each on the Iowa State campus during World War II. The largest source of uranium for the first chain-reacting pile was the Iowa State project.

Because of these accomplishments, Iowa State University was selected as the site for a national laboratory of the Atomic Energy Commission, and the Ames Laboratory was established as a government-owned, contractor-operated laboratory of AEC, with Iowa State chosen as operating contractor and with Spedding chosen as director. This laboratory has had a tremendous impact on the university, very largely because of Spedding's ability to implement his vision of a laboratory emphasizing basic research of a character suitable for faculty and graduate-student participation, but sufficiently focused to have impact on and relevance to problems likely to arise in future technologies. The Ames Laboratory continues to be a major DOE center for research in the preparation, characterization, property evaluation and interpretation of advanced materials consistent with this original vision. Spedding's perpetual curiosity, enthusiasm and dedication were an inspiration to all who knew and worked with him.

ROBERT S. HANSEN
Ames Laboratory
Iowa State University
Ames, Iowa

William Peter Hesse

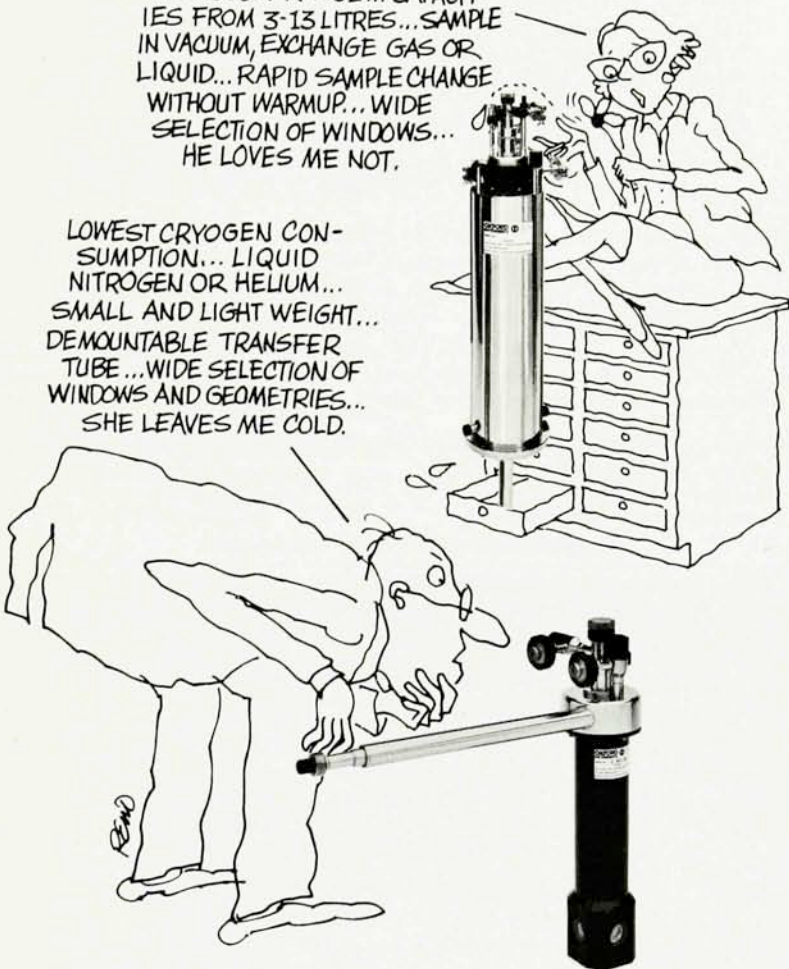
William Peter Hesse, chairman of the physics department of Randolph-Macon College, died in West Germany on 3 August 1985. He had been struck by a passing car while helping a disabled motorist and died of his injuries during surgery at a local hospital.

Born on 28 June 1942 in Binghamton, New York, Hesse received his PhD in 1971 from the University of California, Santa Barbara. He taught physics

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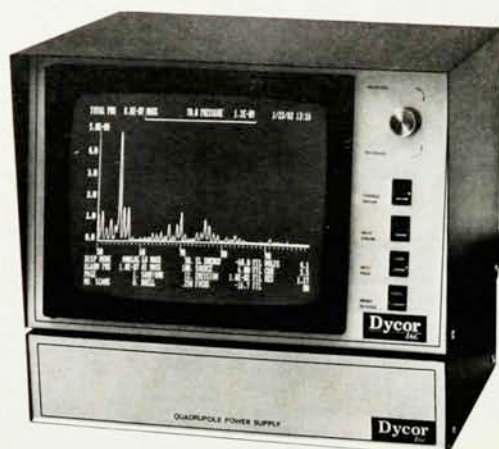
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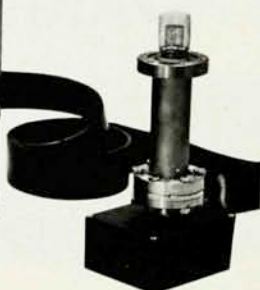
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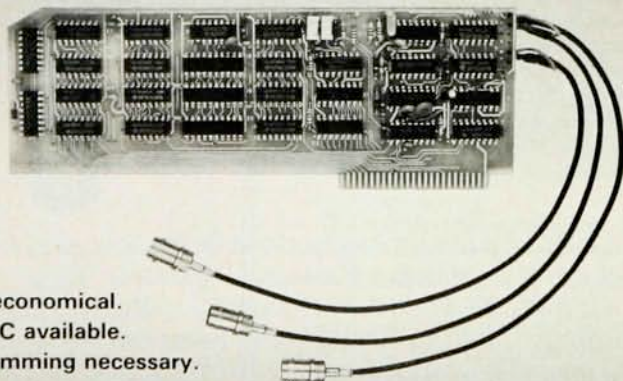
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for two years at Gymnasium Allee in Hamburg, and spent four years in a collaboration at the Deutsches Elektronen Synchrotron conducting research in particle spectroscopy. Hesse joined the physics department at Randolph-Macon in 1977, was named associate professor in 1981 and received tenure in 1984. He served as the college's energy manager (1981-83) and as chairman of the physics department (1983-85). At the time of his death, he was a visiting scientist at the German Kernforschungszentrum, Karlsruhe. He was conducting research, sponsored by the West German Ministry of Scientific Research and Technology, on a new generation of total-energy-absorbing hadronic and electromagnetic-resolving liquid-ionization detectors.

Hesse's love of challenge was legend, and it accounted for the wide diversity of his activities. A dedicated teacher, he demanded more from students than they knew they could produce and he taught them a new sense of confidence. He taught in every forum he could find: local schools, science museums, state fairs and a wide variety of organizations. In addition, Hesse served on numerous advisory committees at the state level and was the only participant not from a PhD-granting institution involved in planning the accelerator at Newport News.

Problem solving was the paradigm of Hesse's life. A deep and original thinker, he was never content just to have an answer: He always wanted to explore the limiting behavior, vary the constraints and adjust the parameters to see how the answer changed. He was never happier than when he found new insights into familiar situations. Hesse's interests were wide-ranging. He was an expert on all aspects of refurbishing buildings for greater energy efficiency. He made substantial contributions to the use of microcomputers in physics teaching and to the appropriate structure of the undergraduate physics curriculum at liberal arts institutions. He had an enduring interest in the social responsibilities incumbent upon users of industry and technology.

WILLIAM FRANZ
EMMETT MADDY
T. BOYD MOORE

Randolph-Macon College
Ashland, Virginia

Otto H. Theimer

Otto Theimer died on 20 August 1985 in Las Cruces, New Mexico, where he had been a research professor in physics at New Mexico State University since 1959.

He was born in Vienna, Austria, in 1918. Although he received his BS at