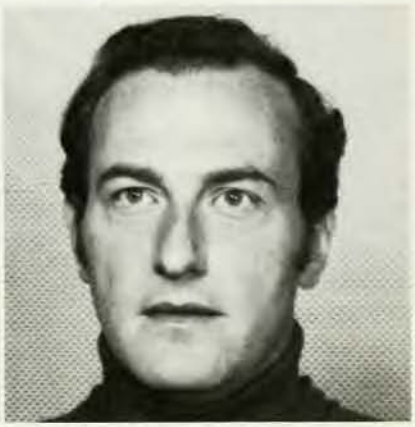
been selected, and they are expected to start their visits in the near future. This fund is a most fitting memorial to Williams.

ARNOLD FELDMAN
Peoria, Illinois

Liviu Bighel



Liviu (Lee) Bighel died on 30 August 1981 in Knoxville, Tennessee, at the age of 34. He was born in Bucharest, Rumania; at the age of 14 he emigrated with his parents to Australia. He attended the University of Sydney, where he received his PhD in 1974.

Lee wrote his dissertation on and spent his career working in plasma physics. He spent three years at the Center for Plasma Physics Research at Lausanne, Switzerland, where he performed experiments on the Lausanne belt pinch device. In 1977, he returned to the University of Sydney to work on the Tortus tokamak experiment. In 1979, he moved to Oak Ridge, Tennessee, to carry out experiments on the EBT device at the national laboratory. At the time of his death, he was in charge of diagnostics for the EBT-P device and was also deeply involved in the analysis and interpretation of experimental results from EBT-S.

LEE A. BERRY
DAVID W. SWAIN
JOHN C. GLOWIENKA
Oak Ridge National Laboratory

E. D. Shipley

Elwood Dwayn Shipley, the first director of the Thermonuclear Experimental Division at Oak Ridge National Laboratory, died 2 October at the age of 74.

Shipley received BS, MS and PhD degrees from the Ohio State University, taught there for several years and then became professor, co-founder (with J. G. Tarboux) and head of the electrical engineering department at the University of Tennessee, Knoxville, beginning in 1936. In 1944 he joined the Manhattan Project at the Y-12 Electromagnetic Plant, operated then by the Tennessee Eastman Company, while he continued at the University of Tennessee (until 1955). He became Director of Research and Development at the Y-12 plant in 1949 and later was an Assistant Laboratory Director at Oak Ridge.

In 1957, after having delivered inspiring lectures for several years to all who could attend the classified Sherwood Project seminars and discussions on controlled thermonuclear research, he became the first director of the ORNL Thermonuclear Experimental Division, now the Fusion Energy Division. There he helped develop the principal direct current experiments (DCX-1 and DCX-2).

He was the driving force behind the ORNL fusion exhibit at the Second Atoms for Peace Conference at Geneva, Switzerland, in 1958. This exhibit consisted of two working models depicting the principles of the dc experiment (DCX-1) then in vogue, with energetic molecular hydrogen ions passing through a long carbon arc where dissociation resulted in the trapping of a

SHIPLEY

ring of energetic protons in a magnetic mirror field. Soviet visitors who were permitted to operate the controls of the exhibit worried the Oak Ridge operations crew by pushing the beam current from the ion source to the limit.

Shipley later became a member of the senior research staff at ORNL and retired from the Union Carbide Nuclear Division in 1972. He then served as UCND consultant for several years, working in the Stable Isotope Separation Program to resolve questions on quality, efficiency and stability of the ion beams used in electromagnetic isotope separators, called "calutrons." He was interested in ion beams of all types, including cyclotron beams, DCX beams, the Geneva exhibit beams and calutron beams. He also applied his

talents to the theory of special relativity and the properties of electrical transmission lines, on which he gave enthusiastic and insightful lecture series.

J. Rand McNally Jr
Arthur H. Snell
Oak Ridge National Laboratory
Alvin M. Weinberg
Institute for Energy Analysis

David W. Juenker

David W. Juenker, professor of physics at the University of Vermont, died of lung cancer on 30 September 1981, at the age of 54. He was widely known as a skillful experimentalist for his work on electron emission and optical phenomena in metals.

Juenker graduated from Canisius College with a BS degree in physics in 1947 and received his PhD in physics in 1952 from the University of Notre Dame. Subsequently he held a postdoctoral appointment in metallurgy and solid-state physics at Princeton University. His work there on cavity formation in iron oxide earned him a Young Author Award from the National Association of Corrosion Engineers. In 1954 he returned to Notre Dame, where he served for the next ten years as assistant and associate professor of physics and began investigations of the vectorial photoelectric effect, periodic deviations from the Schottky effect, and optical properties of transition metals in the far ultraviolet. He continued these studies, with the help of his students, at the University of Vermont, to which he went in 1964 as associate professor and where he became professor in 1966.

In recognition of Juenker's contributions, the department of physics has established a fund to be used for a David W. Juenker Physics Prize, which will be awarded annually to an outstanding senior physics major.

A. D. Crowell
R. W. Detenbeck
University of Vermont □