IN MEMORIAM

MELVIN ARNOLD WILKOV

Melvin Arnold Wilkov, an Associate Professor of Aerospace Engineering and Engineering Mechanics, taught at The University of Texas at Austin from 1964 until his death May 24, 1984. His untimely death at the age of 56 years ended an illustrious career of teaching, research, and consulting in many diverse engineering and scientific fields. Although known as an excellent teacher, he was best known outside the University community for his original work in biomedical materials and as a consultant to the legal profession on product liability problems.

Melvin was born in Newark, New Jersey, on November 12, 1927. He received a B.A. in Mechanical Engineering from the University of Buffalo (now SUNY-Buffalo) in 1952, an M.S. in Mechanical Engineering from the City College of New York in 1957, and his Ph.D. in Engineering Mechanics from the Pennsylvania State University in 1961.

Among his academic accomplishments are the following: He taught the first course at U.T. on the use of the Electron Microscope and developed an Electron Microscope laboratory for use by all engineering students. He was also a leader in the research of the use of metals with "memory" such as Nitinol for treatment of scoliosis, a spinal disorder that causes a lateral curvature of the spine. In addition, he organized the first National Congress on Product Liability in 1980, that included both the engineering and legal professions. He also introduced one of the first courses on product liability in either engineering or law schools in the U.S.
After receiving his B.A. degree he was employed as Chief Engineer for the Federal Engineering Corp. of New York City for four years. While at Penn State he was employed as an Instructor from 1957-61 and as an Assistant Professor from 1961-64. He joined The University of Texas at Austin faculty in 1964 as an Associate Professor of Engineering Mechanics. While at U.T. he served extensively as an engineering consultant to both private industry and governmental agencies. Dr. Wilkov, a licensed private pilot, was a member of Tau Beta Pi (an engineering honorary society), Sigma Xi (a research society), the American Society for Testing Materials, and the Society of Air Safety Investigators. He was a veteran of the U.S. Navy and was a registered professional engineer in the State of Texas.

While at U.T. he supervised six M.S. theses and five Ph.D. dissertations and received more than $300,000 in research funds from external sponsors.

William H. Cunningham, President of The University of Texas at Austin

H. Paul Kelley, Secretary The General Faculty

This Memorial Resolution was prepared by a Special Committee consisting of Professors Lyle G. Clark (Chairman), J. Parker Lamb, and Lawrence R. Mack.
Major Publications

Books

Effect of Surface Environment on the Mechanism of Fatigue. Joseph Marin
Anniversary Volume in Mechanics, University of Toronto Press, 1967.

"A Proposed Medical Application of the Shape Memory Effect: A NiTi Harrington
Rod for the Treatment of Scoliosis," in Shape Memory Effects in Alloys,

Articles

M. A. Wilkov (with B. Applewhite). The effect of surface condition upon

M. A. Wilkov (with S. Hyder). The effect of dislocation density on the

M. A. Wilkov. Effect of point defects on cyclic deformation at 77°K.
Phil. Mag., 11, 1966.

M. A. Wilkov. Solid state distribution analysis of sulfisoxazol tablets.

M. A. Wilkov. Mechanism of failure of biocompatible materials. J. of

M. A. Wilkov. Using the Shape Recovery of Nitinol in the Harrington Rod
treatment of scoliosis. J. of Biomaterials Research, Vol. 10, p. 879,

M. A. Wilkov. Effect of aging on the dislocation substructure formed during
fatigue of quenched aluminum. Proc. of the Annual Meeting, American
Institute of Mining, Metallurgical and Petroleum Engineers (AIME), March,
1968.

M. A. Wilkov. Dislocation interactions during fatigue. Proc. of the Annual
Meeting, American Institute of Mining, Metallurgical and Petroleum Engi-
neers (AIME), March, 1968.

M. A. Wilkov. Low temperature diffusion during deformation. Proc. of

M. A. Wilkov. Use of nucleation for the study of the surface of crystals.


