

Tech Awarded NSF Shock Research Grant

Dr. Marc Meyers, assistant professor of metallurgical engineering at Tech was recently awarded an \$80,000 grant from the National Science Foundation.

The research project is entitled, "An Investigation into the Effects of Grain Size and Pre-Deformation on the Attenuation of Shock Waves in Nickel." The study is designed to develop a better understanding of the effects of high-velocity impact on metals.

Dr. Meyers has been involved in similar research for the past six years, having authored or co-authored approximately 20 scientific articles on the subject. In this study he plans to test experimentally a theory he proposed. Other investigators involved in the two-and-a-half year NSF study are Dr. G.A. Stone and Dr. J. Weyland.

Mines and Tech has one of the most active research groups in the shock area with shock research initiated at Tech in 1974 by Dr. R.N. Orava, dean of the graduate division. Under his leadership the group has achieved international recognition.

\$44,000 NSF Grant

A National Science Foundation grant of \$44,000 for purchase of an energy dispersive x-ray analyzer was awarded to Mines & Tech.

The grant was obtained through the efforts of Dr. Glen Stone and Dr. Marc Meyers, both of Tech's metallurgical engineering department.

The analyzer is mounted on a scanning electron microscope and provides quantitative chemical analysis of particles as small as 1,000th of a millimeter. Training in use of the equipment was provided by Dr. Stone in two courses—electron and x-ray defraction and special topics in metallurgical engineering.

This summer a special Tech workshop entitled, "Scanning Electron Microscopy, Electron Probe and X-ray Excited Chemical Analysis Using the Energy Dispersive Spectrometer" was offered by Dr. Stone.

X-ray analysis in this technique is commonly used throughout the world for quality control and research in cement manufacturing, steel, alloy production, ore survey, petroleum, glass, chemical and agricultural industries.