

Abstract Submitted  
for the MAR11 Meeting of  
The American Physical Society

**Raman Investigation of Ru<sub>2</sub>Si<sub>3</sub> Single Crystals and Thin Films**

A. GLEN BIRDWELL, U.S. Army Research Laboratory, Adelphi, MD 20783 USA, DANIEL LENSSEN, DELO Industrial Adhesives, 86949 Windach, Germany, CONIN B. VINING, ZT Services, Inc., Auburn, AL 36830 USA, FRANK CROWNE, U.S. Army Research Laboratory, Adelphi, MD 20783 USA, ROBERT GLOSSER, Department of Physics, University of Texas at Dallas, Richardson, TX 75080 USA — Raman spectra were obtained from Ru<sub>2</sub>Si<sub>3</sub> single crystals and thin films. The spectra were taken with the incident light polarization parallel and perpendicular to each axis of the single crystal. When inspecting all the spectra of multiple geometric configurations, we were able to observe a total of thirteen phonon modes. To the best of our knowledge, there are very few published results with which to compare. However, the encouraging point of this work is that when spectra were obtained on thin film material composed of multiple crystal orientations, we have a very close correspondence to the modes found from the experiments on the single crystal.

A. Glen Birdwell  
U.S. Army Research Laboratory, Adelphi, MD 20783 USA

Date submitted: 18 Nov 2010

Electronic form version 1.4