

Abstract Submitted  
for the SHOCK11 Meeting of  
The American Physical Society

**Quartz as an impedance-matching standard for shock studies**

AMY LAZICKI, JON EGGERT, RYAN RYGG, DAMIEN HICKS, GILBERT COLLINS, Lawrence Livermore National Laboratory — Alpha-quartz has been developed and frequently used as a convenient standard for impedance-matching in shock studies. Recent results have revealed differences in the Hugoniot of quartz measured using laser-driven vs. plate-impact methods. The choice of standard in many cases has a significant impact on experimental results. We present a thorough investigation of the implications of this difference in quartz standard for the existing experimental reports, with recommendations for future studies.

Amy Lazicki  
Lawrence Livermore National Laboratory

Date submitted: 18 Feb 2011

Electronic form version 1.4