

Abstract Submitted  
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**An examination of material strength, phase boundaries and hysteresis through continuous measurements of release isentropes** DAYNE FRATANDUONO, JON EGGERT, MINTA AKIN, RICKY CHAU, NEIL HOLMES, GILBERT COLLINS, LLNL — The majority of high-pressure dynamic compression experiments have focused upon measuring the equation of state (EOS) under conditions in which the pressure is always increasing. While techniques have been developed to measure discrete states upon release isentropes (states beginning at high-pressure and evolving to low pressure), little progress has been made in the continuous measurement of release isentropes. In this work, we present a new technique to measure release isentropes of transparent and opaque materials. These measurements are well suited to examine material strength, phase boundaries and hysteresis upon release. This work was performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

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