Abstract Submitted
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**The New ICE Age** RANDY HICKMAN, CLINT HALL, CRIS DEENEY, Sandia National Laboratories, MIKE WILLIS, Ktech Corporation — Recent advances in the application of pulsed power to the study of dynamic material response have been made on the Sandia Z accelerator. Smoothly increasing multi-megabar pressure loads have been achieved allowing quasi-isentropes for these materials to be inferred. A significant amount of material research does not, however, require such intense pressure loading. In response to this, Sandia National Laboratories is constructing a facility that will house a compact Isentropic Compression Experiment (ICE) pulsed power driver capable of producing currents of $\sim$ 4 Ma, and subsequent pressure loads on 4 samples up to $\sim$1 Mbar to provide a more cost effective, easily accessed machine for dynamic material studies. Additionally, a single stage air gun will be available to support the pulser as well as for standard, low velocity EOS experiments. Instrumentation will include conventional VISAR with ultra low VPF capability, spatially resolved VISAR, flash X-rays, and sample temperature control. Discussion of facility capabilities and preliminary data will be presented. Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy under contract DE-ACO4-94AL85000.

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