

Abstract Submitted  
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**Plate Impact-Based Isentropic Compression Driver.** AMIT TSABARY, Rafael LTD — Isentropic compression experiments (ICE) are a powerful tool in the research of phase diagrams of materials, dynamic strength and equation of state. Current ramp (isentropic) compression drivers are based on pulsed high-current generators, high-intensity lasers or graded density impactors, made with advanced manufacturing techniques. We introduce a simple, easily implementable target design for (plain) plate-impact ICE experiments. The novel design gives a smooth ramp compression profile at its output, at a fraction of the cost and complexity of existing technologies. The velocity of the target's free surface was measured to give a characterization of the ramp profile, and the peak pressure was extracted to be above 1 megabar.

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