Abstract Submitted
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Laser-Driven Ramp Compression of Pressure Standard Materials[1] KOHEI MIYANISHI, NORIMASA OZAKI, RYOSUKE BRAMBRINK, Graduate School of Engineering, Osaka University, ERIK BRAMBRINK, ALESSANDRA BENUZZI-MOUNAIX, ALESSANDRA RAVASIO, ALEXANDRA DIZIERE, HUIGANG WEI, MICHEL KOENIG, LULI, Ecole Polytechnique, TOMMASO VINCI, CEA — Laser-driven ramp compression technique was used to shocklessly compress gold and plutinum targets. The equations of state (EOS) of these metals are of intrinsic importance to as pressure standard to determine the pressure under static compression. Our group has proposed to study EOS of pressure standards using the ramp compression technique as an approach different from shock Hugoniot-reduced isotherm. Experiments have been performed on LULI2000 facilities at the Ecole Polytechnique. Free-surface velocities of the metals with different thicknesses were measured with 2-channel velocity interferometer systems.

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