Abstract Submitted
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Tantalum on Warm Quasi-Isentropes[1] JEFFREY NGUYEN, JONATHAN BELOF, DANIEL ORLIKOWSKI, NEIL HOLMES, Lawrence Livermore National Laboratory, LAWRENCE LIVERMORE NATIONAL LABORATORY TEAM — We recently carried out a series of light-gas gun experiments to study the equation of state of tantalum along warm quasi-isentropes at up to pressures above 4 Mbars. The experiments were carried out with the use of Graded Density Impactors, which allow us to access phase space regions not previously accessible. The results are consistent with calculations. We present here equation of state data of tantalum up to 5 megabars on an elevated quasi-isentrope. The data are taken on isentropes initiating from shock Hugoniot, and thus taken a significantly different path than that of the principal isentropes. Graded density impactors were used to as pressure drivers in two-stage light gas-gun experiments. The results are consistent with calculations for the elevated isentropes.

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