

Abstract Submitted
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Shock-Timing Measurements in Directly Driven Spherical Inertial Confinement Fusion Targets T.R. BOEHLY, V.N. GONCHAROV, W. SEKA, D.E. FRATANDUONO, M.A. BARRIOS, S.X. HU, J.A. MAROZAS, T.C. SANGSTER, D.D. MEYERHOFER, Laboratory for Laser Energetics, U. of Rochester, D.G. HICKS, P.M. CELLIERS, LLNL — The timing of multiple shock waves in an inertial confinement fusion (ICF) target is critical to its performance. A series of experiments at the Omega Laser Facility used velocity interferometry to measure shocks in directly driven warm and cryogenic targets. Multiple spherical shocks were observed propagating in plastic and liquid deuterium. We report the measured shock velocities and shock coalescence times and compare them to simulations by hydrodynamic codes. This work was supported by the U.S. Department of Energy Office of Inertial Confinement Fusion under Cooperative Agreement No. DE-FC52-08NA28302.

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