

Abstract Submitted
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A New Platform to Study the Effects of Heating Before and During Hydrodynamic Instabilities for ICF Designs.¹ KIRK A. FLIPPO, F. W. DOSS, E. C. MERRITT, A. M. RASMUS, C. A. DI STEFANO, A. STRICKLAND, T. CARDENAS, Los Alamos Natl Lab — The LANL HED Hydro team has adapted our Omega RM/RT instability platform to study the effects of heating on a shocked interface similar to what might occurring in the inner shell of a double shell type design. The interface can be heated before, after or during shock and reshock using the Omega laser, and can easily be adapted to larger facilities such as the NIF. The current design allows for heating of one or two high density interfaces separated by low density foam. The materials can be chosen over a wide variety of densities and atomic numbers and heated from several eV up to around 100 eV, depending on material thickness and composition. Strong shocks can then interact with these layers from either end of the shock tube. Platform details and results of the heating tests on various layers will be presented.

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