

Abstract Submitted  
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**Yield, Ion Temperature, fuel- $\rho R$  and Burn-history Measurements in Exploding Pusher Experiments at OMEGA and the NIF** M. ROSENBERG, A. ZYLSTRA, H. RINDERKNECHT, N. SINENIAN, J. FRENJE, F. SEGUIN, C. LI, R. PETRASSO, MIT, P. MCKENTY, V. GLEBOV, C. STOECKL, T. SANGSTER, R. BETTI, LLE, J. RYGG, A. MACKINNON, A. MACPHEE, D. HICKS, S. FRIEDRICH, LLNL, J. KILKENNY, A. NIKROO, GA — In preparation for the planned DD- and D<sup>3</sup>He-exploding-pusher experiments at the NIF, we conducted similar experiments at OMEGA in which yield, ion temperature, fuel- $\rho R$ , and burn history were measured by a variety of diagnostic techniques. The resulting data from these measurements provide, in combination with simulations, a comprehensive understanding of these implosions. In this presentation, we report the result from these experiments and their potential implications for the NIF experiments. A status report on the NIF activities will be presented as well. This work was supported in part by the US DOE, LLNL and LLE.

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