

Abstract Submitted
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Measurements of the effects of mix on neutron yield and compression in layered capsule implosions on NIF¹ V.A. SMALYUK, H.-S. PARK, T. DOEPPNER, T. MA, B.A. REMINGTON, D. CALLAHAN, B.A. HAMMEL, S.W. HAAN, O.S. JONES, M.H. KEY, N.B. MEEZAN, S.T. PRISBREY, S.V. WEBER, None, S.H. GLENZER, LLNL, J. KLINE, None, J.A. KYRALA, LANL — Recent layered capsule implosion experiments on the National Ignition Facility (NIF) included implosions driven with lower-power, longer pulse shapes. While some of these implosions produced higher compression, others produced higher fuel-ablator mix that can be inferred from the stagnation hotspot x-ray emission, neutron yield, and ion temperature. The connection between simulated perturbation growth and measured layered capsule performance, with focus on experimental observations, will be discussed.

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