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Indirect cryogenic DT layered implosion performance with high-foot high-adiabat drive[1] HYE-SOOK PARK, O.A. HURRICANE, D.A. CALLAHAN, E.L. DEWALD, D.R. DITTRICH, T. DOEPPNER, D.E. HINKEL, L.F. BERZAK HOPKINS, S. LE PAPE, T. MA, A.J. MACKINNON, P.K. PATEL, B.A. REMINGTON, H.F. ROBEY, J.D. SALMONSON, Lawrence Livermore National Laboratory, J.L. KLINE, Los Alamos National Laboratory — We are performing cryogenic DT layered implosion experiments on NIF using a 3-shock high-foot (high-adiabat) drive. This platform is designed to give a more robust implosion that is more resistant to high-mode ablation front Rayleigth-Taylor instabilities and is less sensitive (in models) to variations in opacity modeling of the capsule ablator. The initial NIF results show that the performance parameters are very close to 1D predictions and the measured mix-mass was low implying YOC $> 50\%$. In a follow-on shot, low-mode asymmetries in the formation of the DT ice layer degraded the yield by a factor of 2 indicating that the high-foot platform is less subject to the high-mode instabilities but the low-mode plays an important role in the implosion. This paper will present the experimental results of the high-foot DT layered shots from NIF.

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