

Abstract Submitted
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Charged-particle measurements of ρR symmetry at shock-bang time in NIF implosions A. ZYLSTRA, F. SÉGUIN, C. LI, J. FRENJE, N. SINENIAN, M. ROSENBERG, H. RINDERKNECHT, M. MANUEL, M. GATU-JOHNSON, R. PETRASSO, MIT, S. FRIEDRICH, P. AMENDT, R. BIONTA, D. BRADLEY, D. CALLAHAN, S. GLENN, R. HEETER, D. HICKS, N. IZUMI, O. LANDEN, R. LONDON, A. MACKINNON, N. MEEZAN, W. WEBER, LLNL, J. DELETTREZ, LLE — V. GLEBOV, P. RADHA, T. SANGSTER, LLE, R. OLSON, R. LEEPER, SNL, J. KLINE, G. KYRALA, D. WILSON, LANL, J. KILKENNY, A. NIKROO, GA. – The Wedge Range Filter (WRF) proton spectrometers were developed for OMEGA and transferred to the NIF as National Ignition Campaign (NIC) diagnostics. In tuning campaign implosions containing D and ^3He gas, the WRFs are used to measure the spectrum of protons from D- ^3He reactions. From the measured energy downshift of the D ^3He protons, the total ρR is inferred through the plasma stopping power. Data from WRFs fielded simultaneously on the pole and equator indicate low-mode polar ρR asymmetries at shock flash. Significant swings in ρR P2/P0 are also observed over the ignition campaign data set, attributed to low-mode x-ray drive inhomogeneity. This work was supported in part by the U.S. DOE, LLNL and LLE.

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