

Abstract Submitted
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Field Reversed Configuration (FRC) injection and compression experiments J.H. DEGNAN, R. DELANEY, M. DOMONKOS, C. GRABOWSKI, F.M. LEHR, P. ROBINSON, E.L. RUDEN, W. WHITE, H. WOOD, Air Force Research Laboratory, Directed Energy Directorate, Kirtland AFB, NM, USA, D. GALE, M. KOSTORA, W. SOMMARS, SAIC, Albuquerque, NM, USA, M.H. FRESE, S.D. FRESE, J.F. CAMACHO, S.K. COFFEY, V. MAKHIN, NumerEx LLC, Albuquerque, NM, USA, T.P. INTRATOR, G.A. WURDEN, J. SEARS, P.J. TURCHI, Los Alamos National Laboratory, Los Alamos, NM, USA, R.E. SIEMON, S. FUELLING, B.S. BAUER, University of Nevada Reno, Reno, NV, USA, A.G. LYNN, University of New Mexico, Albuquerque, NM, USA — Experiments on FRC injection into an imploding liner are described, both with and without the operation of the imploding liner. The use of an actual liner limits the FRC diagnostics to observing it entering the liner. For proper choice of operating parameters, guided by 2D-MHD simulations, interferometry, magnetic probe, and collimated light probe data indicate that the FRC enters the liner without leaving it. Other operating parameters result in the FRC entering the liner and bouncing out. Field exclusion lifetime, sufficient for injection and implosion-compression system testing, may need to be increased for better quality implosion-compression. Supported by DOE-OFES.

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