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Z Effects on Fast Electron Transport in Fast Ignition ICF[1] SUGREEV CHAWLA, LLNL, UCSD, M.S. WEI, GA, R. MISHRA, UCSD, C.D. CHEN, LLNL, D. BATANI, Uni Milano, Italy, H. CHEN, LLNL, R. FEDOSEJEVS, Uni Alberta, Canada, R.R. FREEMAN, OSU, H. FRIESEN, Uni Alberta, Canada, L. GIZZI, ILIL, INO-CNR, Pisa, Italy, L.C. JARROTT, UCSD, J. JAQUEZ, GA, P. KOESTER, L. LABATE, ILIL, INO-CNR, Pisa, Italy, A. LINK, LLNL, T. LEVATO, ILIL, INO-CNR, Pisa, Italy, H. MCLEAN, LLNL, A. MORACE, Uni Milano, Italy, V. OVCHINNIKOV, OSU, J. PASLEY, York Plasma Institute, Uni York, UK, P.K. PATEL, LLNL, H. SAWADA, UCSD, Y. SENTOKU, UNR, R.B. STEPHENS, GA, F.N. BEG, UCSD — An experiment was performed at the Titan Laser System at LLNL (1 um, 150 J, 0.7 ps). Multilayer planar targets with Al front surfaces were irradiated to produce fast electrons. The transport layer (Au, Mo, Al) was varied to study the Z dependence of electron transport. Changing from Al to Au decreased experimental Ka yields (2.5x) and spot diameters (30%). Collisional PIC simulations investigated the LPI and electron propagation through the Z layers while the hybrid code ZUMA studied full-scale transport through the target bulk and calculated Ka and bremsstrahlung yields for comparison with experimental data.

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