

Abstract Submitted
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Wavelength effects on hot electron generation at relativistic intensities¹ A. LINK, LLNL, K.U. AKLI, OSU, F. BEG, UCSD, I. BUSH, Univ York, C.D. CHEN, LLNL, J.R. DAVIES, LLE, R. FEDOSEJEVS, Univ Alberta, R.R. FREEMAN, OSU, H. FRIESEN, Univ Alberta, D.S. HEY, LLNL, D.P. HIGGINSON, UCSD, G.E. KEMP, L.C. JARROTT, UCSD, K. LI, Instituto Superior Technico, H.S. MCLEAN, LLNL, A. MORACE, Univ Milan, P.K. PATEL, LLNL, D.W. SCHUMACHER, OSU, A.V. SOROKOVIKOVA, UCSD, R. STEPHENS, GA, M.J.V. STREETER, Imperial College, H.F. TIEDJE, Y.Y. TSUI, Univ Alberta, D. WERTEPNY, OSU, B. WESTHOVER, UCSD — Ultraintense laser interactions with solid density plasma involve significant transfer of energy to electrons. The energy and angular distribution of these electrons play a vital role in the Fast Igniter approach to Inertial Fusion Energy. To investigate the hot electron dependence on irradiation conditions, slab and buried-cone targets were shot on the Titan laser with 1054 and 527 nm short pulse light with 50-150 J of laser light, and intensities greater than 10^{19} Wcm⁻². Experimental and hybrid PIC results of escaping electrons will be presented.

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