

Abstract Submitted  
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**Fast Electron Angular Distribution and Conversion Efficiency Dependence on Laser Wavelength and Pre-Puls**<sup>1</sup> LEONARD JARROTT, DREW HIGGINSON, ANNA SOROKOVIKOVA, BRAD WESTOVER, UCSD, CLIFF CHEN, HARRY MCLEAN, PRAV PATEL, LLNL, TONY LINK, Ohio State University, HAL FRIESEN, ALLAN BEAUDRY, JEFFREY TAIT, JOCELYN WESTWOOD, HENRY TIEDJE, YING TSUI, ROBERT FEDOSEJEVS, University of Alberta, FARHAT BEG, UCSD — Experiments have been conducted using the Titan high-intensity laser ( $50J$ ,  $700fs$ ,  $5 \times 10^{19}Wcm^{-2}$  at  $2\omega$ ) to measure fast electron angular distribution and conversion efficiency from solid, multilayer targets using Hard X-ray Bremsstrahlung Spectrometers (HXBS) with  $1\omega$  and  $2\omega$  Nd:Glass laser pulses. An artificial pre-pulse from the Titan long pulse beam was then injected coaxially to the short pulse beam allowing for a systematic study of the effects of pre-pulse on fast electrons. Subsequent simulations were run using Integrated Tiger Suite (ITS) and Zuma to substantiate experimental data. The scaling of electron temperature, divergence, and conversion efficiency with pre-pulse will be presented.

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