

Abstract Submitted  
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**Quenching mode of efficient heating in entrant cone laser interactions.** H. NAKAMURA, Grad. School of Eng. & ILE, Osaka Univ., B. CHRISMAN, Y. SENTOKU, Nevada Terawatt Facility, Univ. of Nevada, M. BORGHESI, The Queen's Univ. of Belfast, J. FUCHS, Laboratoire pour l'Utilisation des Lasers Intenses, K. KONDO, M. NAKATSUTSUMI, Grad. School of Eng. & ILE, Osaka Univ., M. TAMPO, ILE, Osaka Univ., K.A. TANAKA, T. TANIMOTO, T. YABUCHI, R. KODAMA, Grad. School of Eng. & ILE, Osaka Univ. — We measured hot electron spectra in ultra intense laser interaction with an entrant cone target attached by fine wire on the tip. Fast heating of the wire with the electron was investigated when the laser pulse was focused into the cone changing the pointing of the laser from the tip center to the side wall. Higher slope components appeared on the high energy tail of the hot electron energy spectra for the illumination on the side wall. In contrast, pointing of the laser on the tip relatively increased the lower energy component of the electrons as compared with that for the illumination on the side wall, resulting in well heating of the wire by more than 1keV. The experiments indicate the importance of the pointing of the laser into cone geometry for fast heating of high density imploded plasmas.

H. Nakamura  
Grad. School of Eng. & ILE, Osaka Univ.

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