

Abstract Submitted
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Experimental study on electron transport in high intensity laser solid interaction w/o cone SOPHIE BATON, LULI-CNRS, P. GUILLOU, A. BENUZZI-MOUNAIX, J. FUCHS, M. KOENIG, B. LOUPIAS, LULI-CNRS, France, D. BATANI, A. MORACE, D. PIAZZA, University of Milano, Italy, C. ROUSSEAU, CEA, France, R. KODAMA, T. NORIMATSU, M. NAKATSUTSUMI, ILE, Osaka, Japan, Y. AGLITSKIY, SAIC, McLean, USA — New electron transport results have been obtained in the interaction of a high intensity laser with planar solid target w/o gold cone. The experiment has been performed at the LULI Laboratory with the 100 TW laser facility. The interaction took place either at 1.057 μm or at 0.53 μm wavelength. The targets consist of three layers planar targets molecularly bonded w/o gold cone glued on the front side. The target thickness and the surface size, the target holder, the ASE of the laser and its focalisation point have been varied in order to study their influence on the electron transport. Several diagnostics were implemented: visible rear side imaging, HISAC, X-ray- $K\alpha$ imaging and spectroscopy and the angular distribution of the emitted protons. In our conditions, no significant cone effect was observed. Nevertheless these results seem to indicate that the behaviour of the fast electrons is highly influenced by the target mass.

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