Enhancement of MeV electron creation using metal nano-foam target


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Heating of core plasma is critical issue in the fast ignition scheme of inertial confinement fusion. A foam cone-in-shell target design is proposed as an effective method for the production of fast electrons [1]. Foam target demonstrates high laser energy coupling efficiency into fast electrons compared to solid plane targets without increasing electron beam divergence. We demonstrate the porous size dependence on the fast electron generation.


FIG.1 Electron energy spectrum taken from target rear in laser axis in each target

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