

Abstract Submitted
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Hot Electron generation from Laser and High-Z targets interaction XIN WANG, Physics and Astronomy, Rice University, EDISON LIANG — We did two dimensional particle-in-cell (PIC) simulation about laser and High-Z target interaction, as a comparison of experiments on Texas Petawatt Laser (TPL). We used High-Z target as gold, and Aluminum for comparison, then diagnosed the plasma characters in various conditions. We found that pre-pulse, initial electron density, target thickness and main pulse duration affected the hot electron spectrum. Combine with the experiments, we look forward to find out the optimization to generate above 1MeV high density electron bunch, even to find out a new mechanism.

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