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PIC simulation and experiment comparison on hot electron generation and divergence[1] ELI BORWICK, SU-XING HU, CHUANG REN, University of Rochester, JUN LI, UCSD — We performed PIC simulations using laser and plasma conditions from hydro simulations of an OMEGA experiment (Yakkobi et al. Phys. Plasmas **20**, 092706 (2013)) where hot electron divergence was measured. The simulations showed few hot electrons were generated under the given hydro conditions, which were just below the thresholds for SRS and TPD. Increasing the electron temperature by 20% increased hot electron generation but increasing the laser intensity did not. A newly developed diagnostic showed significant hot electron divergence when they were present, agreeing with the experiment. The results indicate that 1. the hydro conditions may be different in the experiment and the simulations and 2. hot electron generation may not scale with the TPD threshold parameter.

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