

Abstract Submitted
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Study of Thermal Transport in Low-Beta Laser-Produced Plasmas¹ ZACHARIAH BARFIELD, DUSTIN FROULA, JONATHAN PEEBLES, DINO MASTROSIMONE, AARON HANSEN, PETROS TZEFERACOS, JOSEPH KATZ, University of Rochester Laboratory for Laser Energetics — Collective Thomson-scattering experiments were used at the Omega Laser Facility to measure the heat-wave propagation in plasmas where an external magnetic field was scaled to 36 T in a 2-mm-diam gas-jet plasma. At the highest fields, the magnetic-field pressure was equal to the plasma pressure ($\beta \approx 1$). These results are being used to study the limitations of thermal-transport models used in current hydrodynamic codes. Initial experimental and simulation results will be presented.

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