

Abstract Submitted  
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**Same-Shot X-Ray Thomson Scattering and Streaked Imaging of Xenon Radiative Shock Experiments**<sup>1</sup> CHANNING HUNTINGTON, ELISEO GAMBOA, CHRISTINE KRAULAND, CAROLYN KURANZ, R. PAUL DRAKE, University of Michigan, SIEGFRIED GLENZER, Lawrence Livermore National Laboratory — We review the experimental design and results from recent CRASH radiative shock experiments at the Omega Laser facility. These experiments seek to measure the system with high accuracy, employing streaked x-ray radiography and x-ray Thomson scattering diagnostics on each shot. We detail how this diagnostic combination allows for precise interrogation of the different regions of the shock, including the radiation-heated upstream precursor, the radiatively collapsed cooling layer, and the downstream material. Spatially and temporally correlated data from the x-ray streak camera and gated spectrometer is shown, and plans for future iterations of radiative shock experiments are also discussed.

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