

Abstract Submitted
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Laser-Driven Compression Experiments at the Dynamic Compression Sector¹ Y. TOYODA, X. WANG, J. SETHIAN, J. HAWRELIAK, A. SCHUMAN, B. WILLIAMS, D. PASKVAN, J. ZHANG, P. A. RIGG, Y. M. GUPTA, Washington State University — Proof of concept experiments have been carried out to ensure the capabilities of a 100J UV pulsed laser to generate compression waves in samples at the Dynamic Compression Sector (DCS) at the Advanced Photon Source (APS), Argonne National Laboratory. Velocity interferometry (PDV and VISAR) measurements were used to quantitatively determine the compression wave profile and uniformity across the sample back surface, when subjected to a variety of initial loading conditions. We will present the results obtained to date and discuss the potential of this system for future dynamic compression research at DCS.

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