

Abstract Submitted  
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**X-Ray Diffraction of Platinum** M.K. GINNANE, Laboratory for Laser Energetics, U. of Rochester, A. LAZICKI, Lawrence Livermore National Laboratory, D.N. POLSIN, Laboratory for Laser Energetics, U. of Rochester, R. KRAUS, Lawrence Livermore National Laboratory, C.A. MCCOY, Sandia National Laboratory, X. GONG, L. CRANDALL, Laboratory for Laser Energetics, U. of Rochester, M.C. MARSHALL, Lawrence Livermore National Laboratory, C. SEAGLE, J.-P. DAVIS, Sandia National Laboratory, J.H. EGGERT, Lawrence Livermore National Laboratory, S. ROOT, Sandia National Laboratory, D.E. FRATANDUONO, Lawrence Livermore National Laboratory, T.R. BOEHLI, J.R. RYGG, G.W. COLLINS, Laboratory for Laser Energetics, U. of Rochester — Laser-driven experiments at the University of Rochester’s Laboratory for Laser Energetics were performed to probe the crystal structure of shock and shock-ramped platinum with the powder x-ray diffraction platform<sup>1</sup> on OMEGA EP. Platinum is of interest because it is often used as a calibration standard in high-pressure experiments. The samples remained face-centered cubic when shock-ramped up to ~350 GPa and liquid diffraction was observed upon further compression. These experiments serve as additional measurements of shock-ramped, shocked, and shock-released platinum completed at Sandia National Laboratories and the National Ignition Facility. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0003856.

<sup>1</sup>J. R. Rygg *et al.*, *Rev. Sci. Instrum.* **83**, 113904 (2012).

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