

Abstract Submitted
for the SHOCK13 Meeting of
The American Physical Society

Single-Shot Ellipsometry for the Z-Machine SEAN GRANT, AARON BERNSTEIN, University of Texas at Austin, TOM AO, JEAN-PAUL DAVIS, Sandia National Laboratories, TODD DITMIRE, University of Texas at Austin, DANIEL DOLAN, DAWN FLICKER, Sandia National Laboratories, JUNG-FU LIN, NATHAN RILEY, University of Texas at Austin, CHRIS SEAGLE, Sandia National Laboratories — We have developed a single-shot ellipsometry diagnostic capable of taking time-resolved measurements. A comparison of dielectric constants obtained using this method with those from a standard spectroscopic ellipsometry technique showed good agreement when used to measure a static Au sample. The ellipsometer is being designed for use on the Z-machine at Sandia National Laboratories to measure the conductivity of Fe at pressures and temperatures of the Earth's core.

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Date submitted: 22 Feb 2013

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