

Abstract Submitted
for the DPP12 Meeting of
The American Physical Society

Measurements of modulation growth due to ablative Richtmyer-Meshkov instability using 2D laser-imprinted modulations¹ DAVID MARTINEZ, V.A. SMALYUK, H.-S. PARK, B. REMINGTON, Lawrence Livermore National Laboratory, Livermore, CA 94550, USA, A. CASNER, L. MASSES, B. DELORME, CEA, DAM, DIF, F-91297 Arpajon, France, I. IGUMENSCHEV, Laboratory for laser Energetics, University of Rochester, Rochester New York 14623, D. SHVARTS, Y. ELBAZ, NRCN, Beer Sheva 84190, Israel — Unstable growth due to the ablative Richtmyer-Meshkov instability was studied on OMEGA at laser drive intensity of 5×10^{13} W/cm² in a direct drive configuration with a planar CH₂ foil. Initial 2D modulations with spatial wavelengths of 30, 70, and 120 μ m were imprinted on targets by laser beams using special 2D phase plates. The evolution of modulations due to the ablative RM instability was measured with x-ray radiography. Measured modulation growth will be presented and compared with predictions of 2D simulations.

¹This work was performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344. LLNL-ABS-563572.

David Martinez
Lawrence Livermore National Laboratory, Livermore, CA 94550, USA

Date submitted: 16 Jul 2012

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