

Abstract Submitted
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NIF-ablator characterization experiments on the Omega laser system¹ DAVID BRADLEY, D.G. BRAUN, G.W. COLLINS, S.W. HAAN, S.G. GLENDINNING, R.H. PAGE, J.L. MILOVICH, O. LANDEN, Lawrence Livermore National Laboratory, V. SMALYUK, Laboratory for Laser Energetics, A. NIKROO, K. MORENO, H. HUANG, General Atomics — A detailed understanding of the performance of candidate ablator materials is important for guiding the design of indirect drive ICF capsules for ignition. This includes, but is not limited to understanding measurements of preheat and instability growth. We have previously reported on the development of a high-growth planar Rayleigh Taylor platform in which we have demonstrated growth factors of 200x for sinusoidal 2-D modulations in CH foils. The technique has now been adapted to study 3D surface perturbations in actual NIF ablator materials. In this presentation we show the results of experiments carried out on sputtered Cu-doped Be with random surface perturbations at levels close to those expected on the NIF ignition capsule.

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