

Abstract Submitted
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Dependence of simulated laser reflectivity on gain in National Ignition Campaign targets¹ D.E. HINKEL, A.B. LANGDON, C.H. STILL, D.J. STROZZI, E.A. WILLIAMS, Lawrence Livermore National Laboratory — Ignition targets² designed for the National Ignition Campaign range in radiation temperature from 270 to 300 eV. These high-Z cylinders contain a DT capsule overcoated with either Be or CH, and are filled with H4He. The large laser spots in these designs reduce laser intensity, and hence levels of stimulated backscatter, where laser light resonantly scatters off ion acoustic or electron plasma waves. Gain exponents for backscatter³ have been calculated for these ignition targets. Both pF3D³ and DEplete⁴ have simulated laser light propagation for these targets. The correlation of reflectivity to gain exponent will be presented and discussed.

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²D. A. Callahan, invited talk, APS-DPP, 2008.

³D. E. Hinkel, D. A. Callahan, A. B. Langdon, S. H. Langer, C. H. Still, and E. A. Williams, *Phys. Plasmas* **15**, 056314 (2008).

⁴D. J. Strozzi, E. A. Williams, D. E. Hinkel, D. H. Froula, R. A. London, and D. A. Callahan, “Ray-based calculations of laser backscatter in ICF targets”, submitted, *Phys. Plasmas*.

Denise Hinkel
Lawrence Livermore National Laboratory

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