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**Comparison of the Depth of Mix in ICF Capsules Driven with Symmetric or Polar Direct Drive on OMEGA**[1] J.A. COBBLE, P.A. BRADLEY, S.C. HSU, N.S. KRASHENINNIKOVA, T.J. MURPHY, K.A.D. OBREY, M.J. SCHMITT, R.C. SHAH, I.L. TREGILLIS, S.H. BATHA, Los Alamos National Laboratory — ICF capsules with an inner layer doped with titanium are imploded on the OMEGA laser facility with both 60-beam symmetric drive and 40-beam polar direct-drive (PDD) to determine the effect of PDD on the depth of mix into the ablator. The doped layer is either on the inside surface of the capsule or buried under up to 4.5 microns of plastic. The emission of the titanium is measured using an absolutely calibrated x-ray spectrometer. For spherical drive experiments, the titanium emission drops quickly with a burial depth of a few microns. Absorption of continuum emission from the imploded core by the titanium and the neutron yield of the implosions vary with the burial depth on a similar scale. PDD shots are currently scheduled and will determine if the amount of mixing is affected by the PDD, and if the emission scales with burial depth in the same way.

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