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**Target Performance in Pd-Overcoated Spherical OMEGA Implosions** P.B. RADHA, C. STOECKL, G. FIKSEL, V.N. GONCHAROV, S.X. HU, J.P. KNAUER, D.T. MICHEL, T.C. SANGSTER, W. SEKA, Laboratory for Laser Energetics, U. of Rochester — Improved yields in implosions of plastic (CH) shell targets overcoated with a thin (approximately a few hundred angstroms) of Pd have been measured in OMEGA implosions.[1] Implosions with triple-picket pulses and room-temperature, Pd-overcoated CH shells, where the in-flight aspect ratio (IFAR) has been varied between 19 and 28, are studied on the OMEGA laser. Marginal improvement in yield is found for the lower-IFAR implosions, whereas the higher-IFAR, ignition-relevant implosions show no improvement. Simulations of scattered light, trajectories, bang-time, areal densities, and time-resolved x-ray spectra are compared to experiments. Progress in understanding the role of imprint in target performance in OMEGA implosions is presented. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0001944.

[1]A. N. Mostovych *et al.*, Phys. Rev. Lett. **100**, 075002 (2008).

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