

Abstract Submitted
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Wall-shaped hohlraum influence on symmetry and energetics in gas-filled hohlraums VERONIQUE TASSIN, FRANCK PHILIPPE, STEPHANE LAFFITE, LAURENT VIDEAU, MARIE-CHRISTINE MONTEIL, BRUNO VILLETTE, PHILIPPE STEMMLER, SOPHIE BEDNARCZYK, EMILIE PECHE, BENOIT RENEAUME, CHRISTIAN THESSIEUX, CEA/DIF, 91297 Arpajon, France — On the way to the LMJ completion, achieving ignition with 40 quads in a 2-cone configuration will be attempted as a first step. Theoretical investigation of a rugby-shaped hohlraum shows energetics optimization and a better symmetry control compared to a cylindrical hohlraum [1]. We recently conducted experiments on the Omega laser facility with 3 different wall-shaped methane-filled hohlraum configurations. We present here the experimental results. Energetics benefits are shown for reduced wall area hohlraums. The wall-shaped hohlraum influence on time-dependent radiation symmetry is also discussed. For the 3 gas-filled hohlraums configurations, we compare the foamball early-time radiographs, the D2Ar-filled capsule time-integrated images and the core self-emission images. [1] M. Vandenboomgaerde, Phys. Rev. Lett., 99, 065004 (2007).

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