

Abstract Submitted
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Operational advantages of double-shell target designs at 750 kJ (3ω) on the National Ignition Facility¹ CHARLES CERJAN, PETER AMENDT, CHRISTOPHER HAYNAM, KENNETH MANES, LLNL — It is well known that several practical operational issues will limit the approach to ignition on any large laser system, especially pulse shaping and optical component damage. Recently proposed double-shell target designs employ a temporal pulse shape that peaks early in time and decreases slowly thereafter [1]. From an operational viewpoint, this pulse shape is easier to produce with a saturated amplifier, which is used in the NIF configuration, and the reduced fluence of this pulse will lead to slower growth of damage sites in the optical components. Thus, in addition to the intrinsic physical advantages of this pulse, enhanced operational latitude will be realized.

[1] P. Amendt *et al.*, Phys. Plasmas **9**, 2221 (2002).

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