

Abstract Submitted  
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**Double-shell capsules, an alternative to the single-shell cryogenic NIF design** G.R. MAGELSSSEN, N.D. DELAMATER, M.A. GUNDERSON, I.L. TREGILLIS, M.J. SCHMITT, Los Alamos National Laboratory — Recently, Los Alamos has renewed its effort[1] to design and evaluate double-shell capsules as an alternative to the single-shell cryogenic NIF design.[2] The recent work by Livermore is being used as a starting point.[3-4] One to two megajoules of laser energy is used as input into the designs being considered. Sensitivity studies to P2 and P4 radiation flux asymmetries have been done and are presented in a separate talk.[5] Also, mix calculations of both the NIF capsule design and the double-shell design recently fielded on Omega3 will be presented in another talk.[6] Fully integrated calculations of the double-shell designs will be presented. Preliminary simulations with Rage, an Eulerian AMR code, will be shown that address the issue associated with gaps created by bringing two hemispheres together to create the outer shell. 1. M.S. Varnum et al., Phys. Rev. Lett. 84, 5153 (2000). 2. D.A. Callahan et al., Phys. of Plasmas 13, 56307 (2005). 3. P.A. Amendt et al., Phys. Rev. Lett. 94, 65004 (2005); private communication. 4. J.L. Milovich et al., Phys. of Plasmas 11, 1552 (2004). 5. I.L. Tregillis, this conference. 6. N.D. Delamater et al., this conference.  
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