Abstract Submitted
for the DPP14 Meeting of
The American Physical Society

**Calculations for Indirectly Driven Be capsule Implosion Experiments at Omega**[1] GEORGE KYRALA, JOHN KLINE, ELIZABETH MERRITT, Los Alamos National Laboratory — Beryllium (Be) ablators offer an attractive path to ignition on the National Ignition Facility (NIF). They offer better ablation rate, higher efficiency, and higher ablation velocity than the currently used CH or Diamond capsules. We have designed a capsule of Be for implosions at Omega to test our understanding of Be implosions in the foot of the anticipated NIF pulse, $\sim$ 100-110 eV for a period of 1 -2 ns drive. We calculated the emission profile, diameter, and implosion time. We will present a comparison to the completed experiments using either Be or CH ablator. We also will provide calculations of the effect of adding different amounts of an Argon dopant on the expected x-ray yield and emission shapes.

[1]This work is supported by the US DOE.

George Kyrala
Los Alamos National Laboratory

Date submitted: 10 Jul 2014 Electronic form version 1.4