

Abstract Submitted  
for the DFD06 Meeting of  
The American Physical Society

**Progress with High Ma Richtmyer-Meshkov Experiments** MALCOLM ANDREWS, ROBERT GORE, HILL LARRY, MERRILL FRANK, KATHERINE PRESTRIDGE, Los Alamos National Laboratory — We describe our progress with a new experiment to investigate  $Ma > 4$  shock driven Richtmyer-Meshkov (RM) instability, with application to Inertial Confined Fusion (ICF). The experiment comprises a three inch diameter shock tube filled with Xe and He (Atwood=0.95), separated by a Aluminium mesh that supports microfilm. High explosive (HE) is used to drive a projectile, that in-turn generates a plane shock that can range from  $4 < Ma < 12$  according to the amount of HE. The shock travels down the tube and drives the RM. As diagnostic we have installed the equipment in the Los Alamos pRad (proton radiation) facility, and seek measurements of RM mixing width and density profiles. This is an on-going program and so we shall describe the experiment in detail, its design, and results obtained.

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Date submitted: 04 Aug 2006

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