Abstract Submitted
for the DPP13 Meeting of
The American Physical Society

An ICF Mix Model with Experimental Input JAMES GLIMM,
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MELVIN, VERINDER RANA, Stony Brook University — A buoyancy drag type
mix model is adapted to the study of mix in the deceleration phase of an ICF cap-
sule. The time dependent Atwood number and acceleration are essential inputs to
the model. A range of values for these parameters reflecting experimental data and
1D simulations are studied. The simulations are based on HYDRA, FLASH and the
Stony Brook code FronTier. Physical quantities from HYDRA at deceleration time
provide inputs to the other simulations. Time dependent density profiles and accel-
erations taken from HYDRA simulations suggest only a minor level of mix for the
deceleration phase. Results from FLASH and FronTier simulations with modified
input and having an Atwood number closer to experiment at the time of maximum
neutron production, suggest a significant level of mixing.

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Date submitted: 09 Jul 2013   Electronic form version 1.4