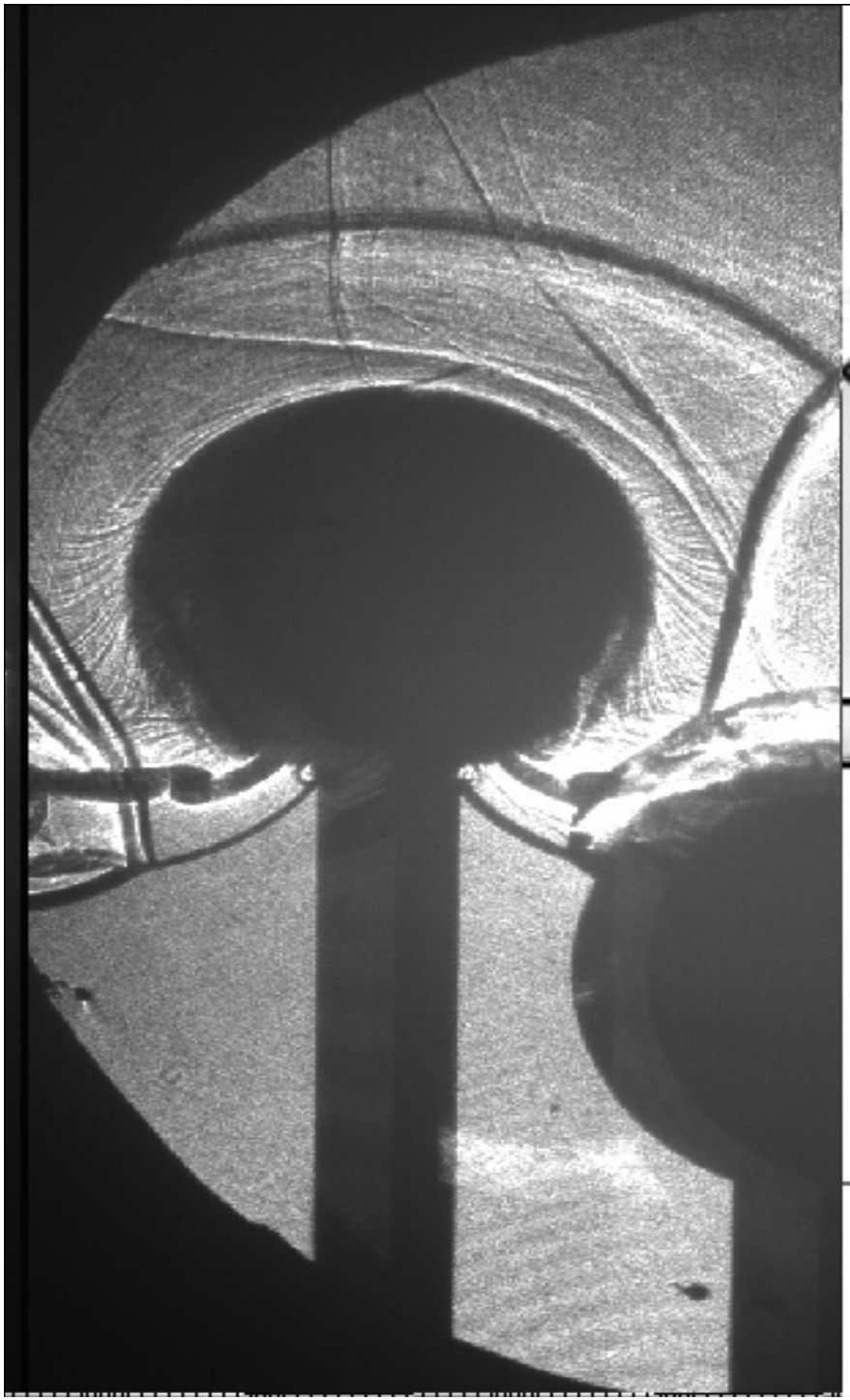
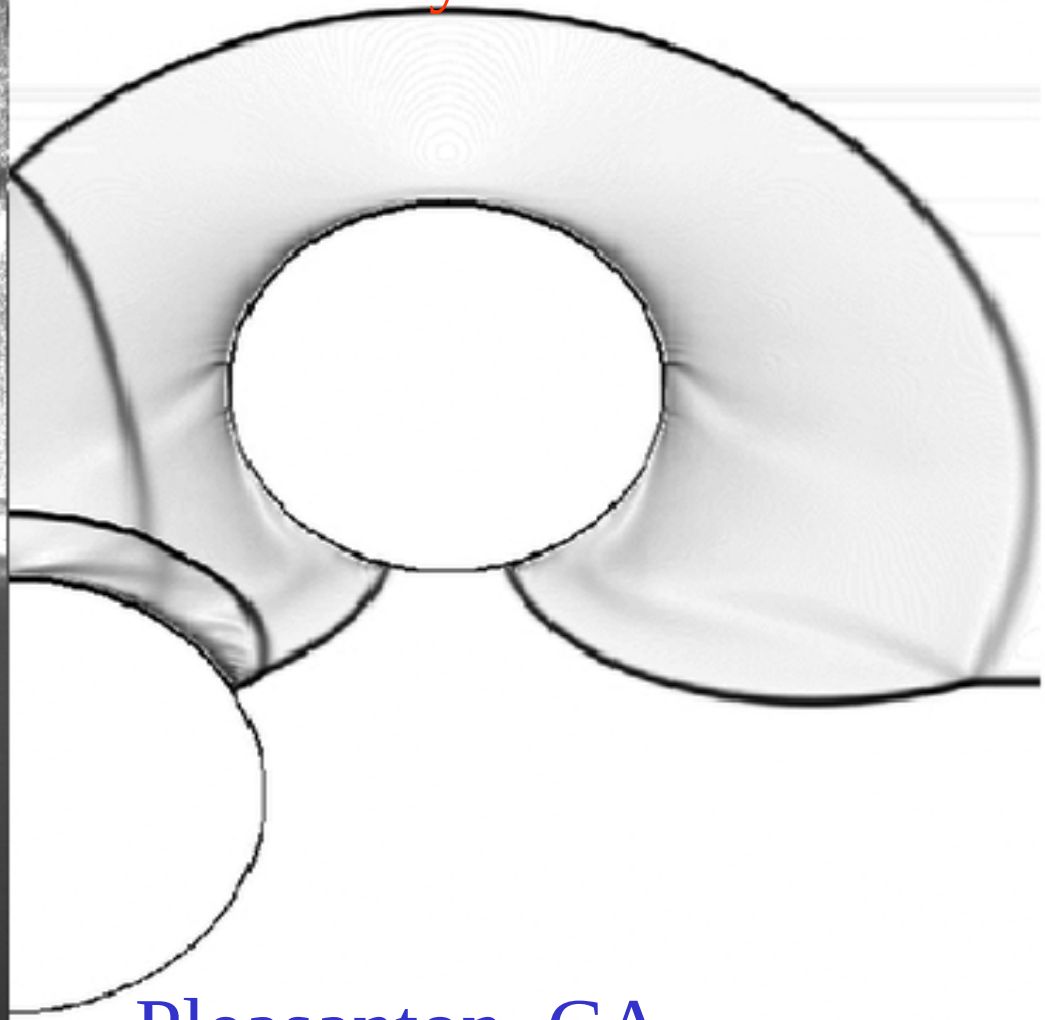


IFE Chamber Design Progress at the University of Wisconsin

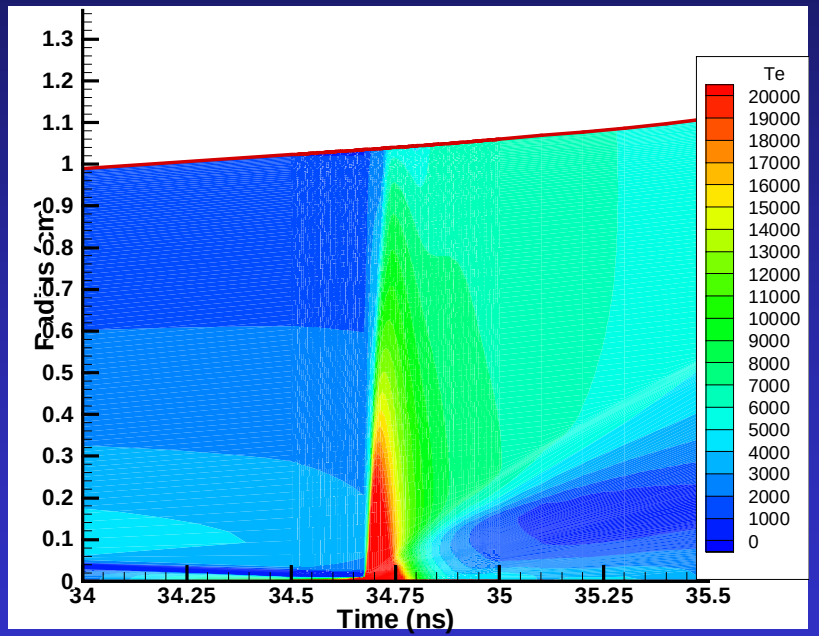


Pleasanton, CA,
November 14, 2001

Goal-

Provide Self-Consistent Target Gain and Time Dependent X-ray and Ion Spectra to the IFE Community

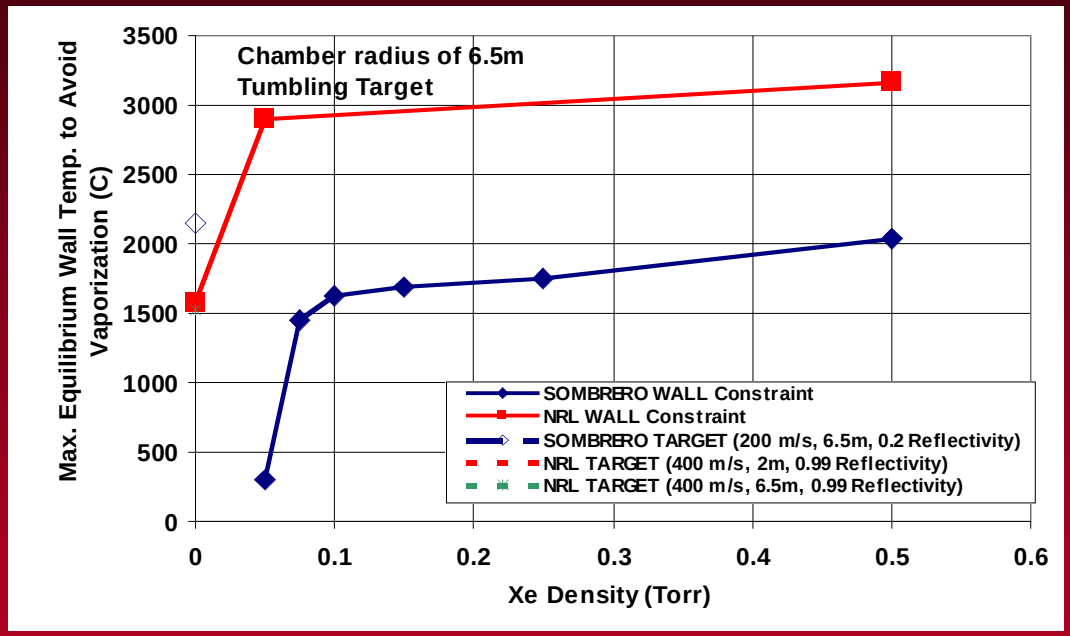
- Rapid evaluation of direct drive targets (i. e., pulse shape, zooming, coatings, etc.)
- 2D ray tracing laser deposition



Status: Completed

Goal-Assess Dry Wall Response and Survival Using Detailed Threat Spectra

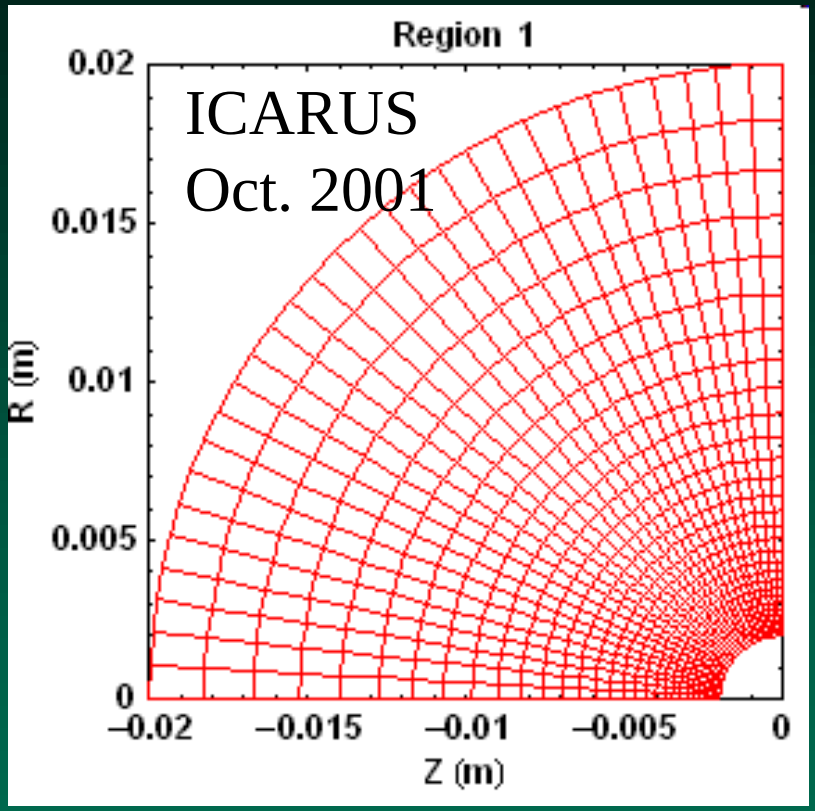
- Include chamber environment (i. e., gases, pressure, wall material, etc.)
- Include blast wave propagation
- Methods to mitigate oxidation of C during accidents



Status: Pushed down req'd gas pressure from 500 mTorr to < 25 mTorr

Goal-Investigate Target Survival in Dry Wall Chambers

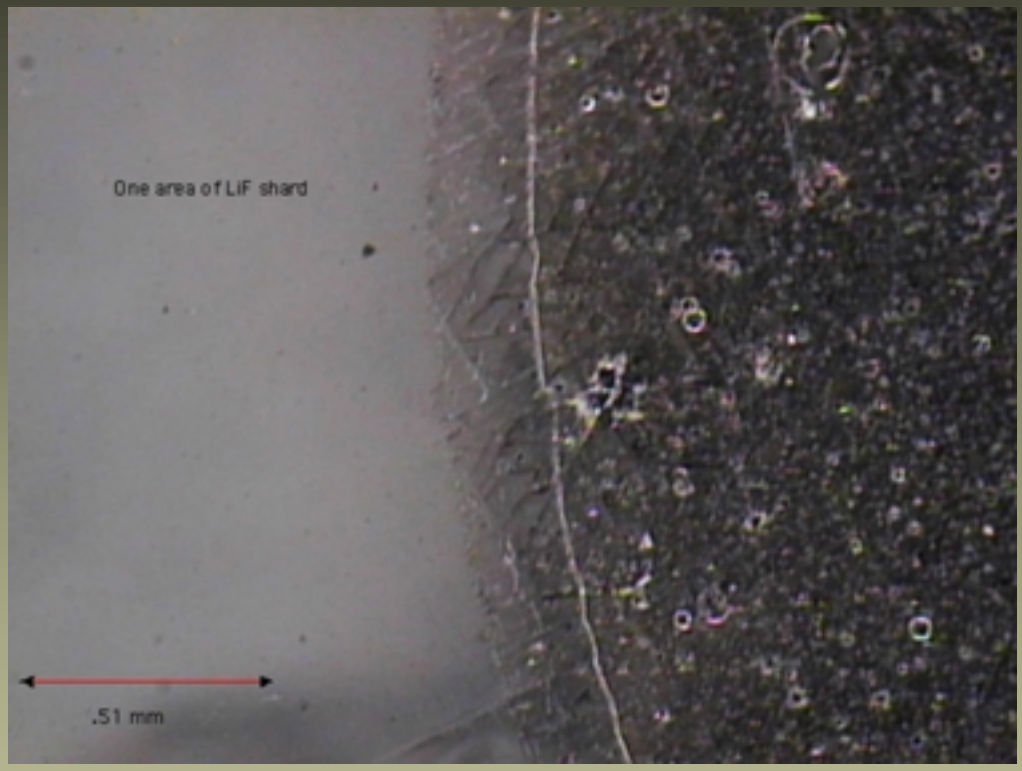
- Use Monte Carlo ICARUS Code (SNL) to calculate frictional heating, FW radiation heating
- Calculates drag



Status: Target survival still an open question, more calculations underway.

Goal-Measure the Threshold for Vaporization of IFE First Wall Materials

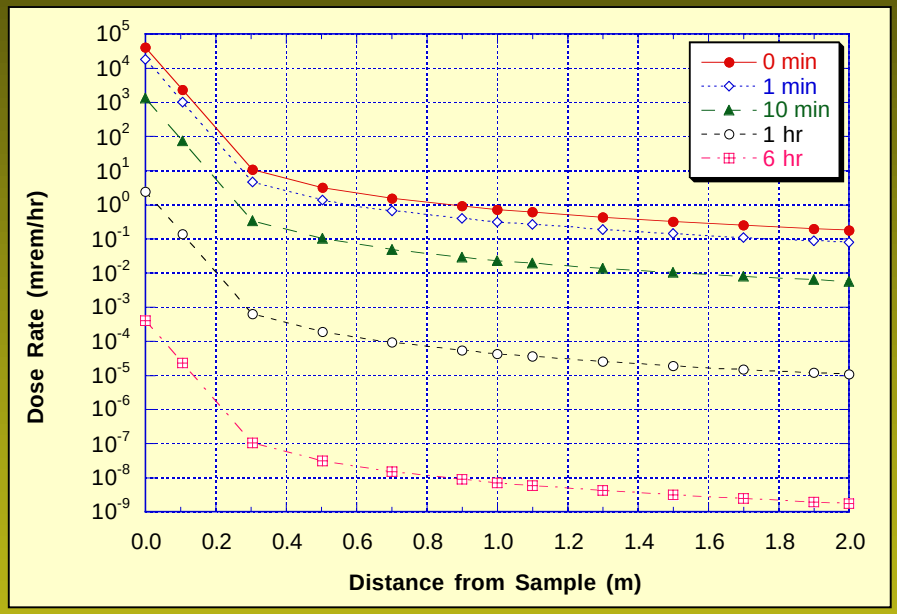
- Use Z facility generated x-rays
- Correlate with models



Status: Initial experiments and models agree
-more experiments underway

Goal-Support Irradiation Experiments of Final Optics at LANL

- Calculate transmutation rates and radiation levels using SOA ALARA code and latest high energy neutron cross-sections



Status: 14 MeV neutron irradiation analysis complete.
LANCE irradiation analysis underway.