

Abstract Submitted  
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**Optimizing 9-25 keV point projection 2D backlighters** KEVIN BAKER, STEVE MACLAREN, GAIL GLENDINNING, RICHARD SEUGLING, Lawrence Livermore National Laboratory, NICK WHITING, CHUCK SOURCE, JULIE FOOKS, Laboratory for laser energetics, KEVIN FOURNIER, MONIKA BL-ENER, DAVID MARTINEZ, VLADIMIR SMALYUK, TOM DITTRICH, Lawrence Livermore National Laboratory, ALASTAIR MOORE, TOM GUYMER, Atomic Weapons Establishment — The conversion efficiency of zinc  $\text{He}_\alpha$  backlighter and silver  $\text{k}_\alpha$  sources have been studied on the OMEGA laser. A common platform was used to evaluate the conversion efficiency from Zn foils with and without a 2.8 ns prepulse and from low density zinc foams containing varying quantities of zinc relative to low  $Z$  foam constituents. The common platform consisted of a 2 mm diameter by 2 mm long tube that was either filled with a low density foam or had two foils glued on the ends of an empty tube. The foam targets, which underwent volume ionization, exhibited more uniform radial emission above 1 keV than the foil targets. The thinnest Zn exploding foil targets stagnated in the middle of the tube producing a temporally longer  $\text{He}_\alpha$  emission than the other targets. The highest overall conversion efficiency came from a foil target driven with a 2.8 ns prepulse. Initial results from silver  $\text{k}_\alpha$  sources will also be presented.

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