

Abstract Submitted
for the DPP07 Meeting of
The American Physical Society

Implementation of Au Transmission Photocathode for Laboratory Astrophysics Diagnostics Research¹ MARIANO LOWENSTERN, R. PAUL DRAKE, ERIC HARDING, CHANNING HUNTINGTON, GURLOVLEEN RATHORE, ANTHONY VISCO, University of Michigan — The development of laser driven experiments with a focus on Inertial Confinement Fusion has allowed scientists to carry on studies in Astrophysical phenomena that were previously impossible to duplicate. A type of tool used for the diagnostics of this experiments is known as an X-ray framing camera. This device makes use of the X-rays produced by plasma during such experiments and converts them into electrons that are detected by a phosphor material. We have implemented a detached Au transmission photocathode (160 Angstroms thick) on a MCP and are evaluating it using a 1.5 keV Al K-alpha X-ray source. We will report the results of measurements to determine whether this improves the effective quantum efficiency of the X-ray detection system.

¹This research was sponsored by the Naval Research Laboratory through contract NRL N00173-06-1-G906 and by NNSA through DOE Research Grant DE-FG52-04NA00064.

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Date submitted: 04 Sep 2007

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