

Abstract Submitted
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Performance Evaluation of a Microchannel Plate based X-ray Camera with a Reflecting Grid A. VISCO, R.P. DRAKE, E.C. HARDING, G.K. RATHORE, University of Michigan — Microchannel Plates (MCPs) are used in a variety of imaging systems as a means of amplifying the incident radiation. Using a microchannel plate mount recently developed at the University of Michigan, the effects of a metal reflecting grid are explored. Employing the reflecting grid, we create a potential difference above the MCP input surface that forces ejected electrons back into the pores, which may prove to increase the quantum efficiency of the camera. We investigate the changes in the pulse height distribution, modular transfer function, and Quantum efficiency of MCPs caused by the introduction of the reflecting grid. Work supported by the Naval Research Laboratory, National Nuclear Security Administration under the Stewardship Science Academic Alliances program through DOE Research Grant DE-FG52-03NA00064, and through DE FG53 2005 NA26014, and Livermore National Laboratory.

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