

Abstract Submitted
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A Consistency Study for Manganese- He_α Emission with Z-Beamlet¹ MATTHIAS GEISSEL, CARLOS COX, I.C. SMITH, J.E. SHORES, V.H. BIGMAN, F.W. LONG, B.W. ATHERTON, Sandia National Laboratories — Sandia National Laboratories' Z-Backlighter Facility is using a monochromatic X-ray crystal imaging concept at the Manganese He_α energy of 6.151 keV to backlight HEDP experiments on the Z-Accelerator [1]. We will report on the first campaign dedicated to study and optimize the consistency of image brightness with respect to varying target and laser properties. It will be explained how physical insights and mechanical improvements are contributing to the continuous development of the backlighting capabilities and how they will feed back into the planning of the next optimization campaigns.

[1] D.B. Sinars, G.R. Bennett, D.F. Wenger et al.: Rev. Sci. Instrum., **75**/10, 3672 (2004)

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