Abstract Submitted
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X-ray Imaging Schemes with Matched Pairs of Spherically Bent Crystals[1] M. BITTER, K.W. HILL, S. SCOTT, R. FEDER, Princeton Plasma Physics Laboratory, Princeton, NJ, 08543, JINSEOK KO, A. INCE-CUSHMAN, J.E. RICE, Plasma Science and Fusion Center, Cambridge, MA, 02139, P. BEIERSDORFER, S. GLENZER, Lawrence Livermore National Laboratory, Livermore, CA, 94550-9234 — The paper describes two x-ray imaging schemes with matched pairs of spherically bent crystals, which may be of interest for the diagnosis of laser-produced plasmas. The first scheme eliminates the astigmatism and thus allows for a point-to-point, one-dimensional, imaging at almost arbitrarily large angles of incidence with high spectral resolution. The second scheme allows for two-dimensional, point-to-point, imaging with a large magnification at a particular wavelength. An advantage common to both schemes is that the detector can easily be protected from debris.

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