

Abstract Submitted  
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**Time-resolved two-color monochromatic x-ray imagers for fast-ignitor plasmas**<sup>1</sup> MINORU TANABE, TAKASHI FUJIWARA, SHINSUKE FUJIOKA, HIROAKI NISHIMURA, HIROYUKI SHIRAGA, HIROSHI AZECHI, KUNIOKI MIMA, Institute of Laser Engineering, Osaka University — Ultrafast two-dimensional (2D) x-ray imaging is required to investigate the dynamics of fast-heated core plasma in fast ignition research. A novel x-ray imager, consisting of two toroidally bent Bragg crystals and an ultrafast two-dimensional x-ray imaging camera, has been demonstrated in order to measure an electron temperature profile of fast-ignitor plasma. Sequential, two-color, and 2D monochromatic x-ray images of laser-imploded core plasma were obtained with a temporal resolution of 20 ps, a spatial resolution of 31  $\mu\text{m}$ , and a spectral resolution of over 200, simultaneously. Details of the experimental results and analysis will be discussed

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