Abstract Submitted
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Imploded core structure of shell target with a cone for fast ignition observed with SIXS: Sampling-Image X-ray Streak camera MYONGDOK LEE, HIROYUKI SHIRAGA, NORIMITSU MAHIGASHI, HIROSHI AZECHI, HIDEO NAGATOMO, Institute of Laser Engineering, Osaka University — 2D-SIXS: two-dimensional sampling image x-ray streak camera is a technique to obtain ultra-fast two-dimensional x-ray images by using an x-ray streak camera [1]. We have developed a 2D-SIXS system with 40x39 sampling pinholes coupled to a Hamamatsu C-7700-31 x-ray streak camera. 2D-SIXS was used to observe time-resolved structure of the imploded core plasma of a spherical shell target with a cone for fast ignition. Spatial and temporal resolutions were 20 microns and 24 ps, respectively. 50 sequential frames were successfully reconstructed. It was found that the x-ray emitting region of the core moves towards the tip of the cone. [1] H. Shiraga, et. al., Rev. Sci. Instrum., 70, 620 (1999).

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