

Abstract Submitted
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Experimental investigation of the novel x-ray tube for the KSTAR x-ray image crystal spectrometer¹ JUN-GYO BAK, SANG-GON LEE, MIN-GAP BOG, National Fusion Research Center, UK-WON NAM, Korea Astronomy & Space Science Institute, MYUNG-KOOK MOON, JONG-KYU CHEON, Korea Atomic Energy Research Institute — A novel x-ray tube with an anode and a line filament has been developed for the *in-situ* calibration of a two dimensional segmented position-sensitive, multi-wire proportional counter (2D detector) in the KSTAR x-ray image crystal spectrometer (XICS). For the investigation of the performance of the x-ray tube as a line x-ray source for the calibration of the 2D detector, the images from the x-ray tube with Cu and Al anodes are measured by using a pinhole and the 2D detector. The characteristics of the x-ray images, such as the width and length of the image, are investigated and two images from the x-ray tube using Cu and Al anodes are compared. This work will be needed for the application of the in-situ calibration of the XICS. In this work, the experimental investigation of the x-ray tube will be presented.

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