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PSF CHARACTERIZATION OF THE ALBA X-RAY PINHOLES

U. Iriso, Z. Martí, A. A. Nosych, A. Cazorla, I. Mases

Abstract

ALBA is currently equipped with two X-ray pinhole cameras for continuous beam size monitoring using the synchrotron radiation from two different bending magnets. The first pinhole was installed on day-1 and it is working properly since 2011 as the work-horse for the ALBA emittance measurements. The second one has been commissioned in early 2021 for redundancy purposes. This paper summarizes the exercises to characterize the Point Spread Function (PSF) of both pinhole cameras using analytical calculations, SRW simulations, and experimental measurements.

Accelerator Division
Alba Synchrotron Light Source
c/ de la Llum, 2-26
08290 Cerdanyola del Valles, Spain