

AIRIX DIAGNOSTIC DEVICES FOR FOCAL SPOT SIZE AND DOSE MEASUREMENTS

O. Pierret, CEA, Pontfaverger-Moronvilliers

Abstract

AIRIX is a 2 kA, 19 MeV, 60 ns, single shot linear accelerator that produces X-rays from the interaction between relativistic electrons and a Tantalum solid target (Ta). Focal spot size, integrated and temporal dose are the main characteristics that we need for the successful development of flash radiography at hydro test facilities. MTFX is a 12 bit Charge-Coupled Device (CCD) intensified camera which is equipped with a scintillator. It can give focal spot size measurements in two directions using a two dimensional wedge. By another way Mucaddix is a CVD Diamond detector which is integrated nearby the AIRIX X-ray beam source. It gives integrated dose, time resolve dose, temporal characteristics of the X-ray flash and timing of the flash respect to the start of object implosion. These two measurement systems are described and the quantified results are reviewed here.

**CONTRIBUTION NOT
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