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Two-dimensional reconstruction by the multi-strip ionization chamber at PREF

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The 60 MeV Proton Radiation Effects Facility (PREF) spent nearly 1 month at the commissioning phase, during which the multi-strip ionization chamber (MIC) at the experimental terminal offered the core parameters, beam spot, scanning area, scanning uniformity, beam flux. However, the projectile distribution provided by the MIC loses some information, such as the flux in a selected area less than the scanning area. This paper proposes a method of two-dimensional reconstruction and experimentally demonstrates that the MIC has the ability to provide a 2D scanning distribution at a sample rate of 10 kHz.

Footnotes

Funding Agency

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