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Design of a multi-layer ionization chamber

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In this paper, a multi-layer ionization chamber is designed for the measurement of 250MeV proton beam profile. The chamber is equipped with 128 X and Y channels, allowing for high-resolution profiling of the proton beam across both transverse axes. Each channel is capable of detecting ionization events, providing precise dose measurements and spatial distribution information. The design incorporates advanced materials and configurations to ensure optimal energy response and accuracy at the specified proton energy. The proposed chamber aims to enhance the accuracy of proton therapy dose verification and monitoring, enabling better patient treatment planning and quality assurance in proton beam therapy.

Footnotes

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Author: NAJAFIYAN, Ali (Shahid Beheshti University)

Co-authors: GHASEMI, Farshad (Nuclear Science and Technology Research Institute); ABBASI DAVANI, Fereydoun (Shahid Beheshti University); AGHAYAN, Mahdi (Nuclear Science and Technology Research Institute)

Presenter: NAJAFIYAN, Ali (Shahid Beheshti University)

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