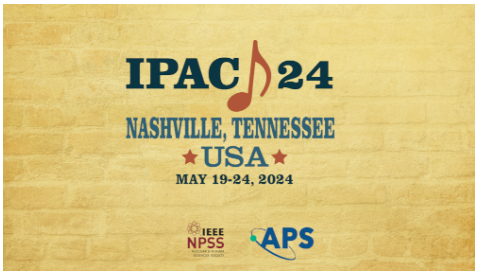

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Simulation study of ion beam used to produce Mo-99

Tuesday, 21 May 2024 16:00 (2 hours)

An 820 mA CW positive ion source is being developed to produce Mo-99 using the fusion of deuterium and tritium ion beams on a rotating target to produce neutrons for use in the production of radiopharmaceuticals. The ion source consists of an RF plasma source, a multi-aperture extractor, and 300 kV accelerating column. This paper will describe a simulation study of the beam through the extractor grid and the accelerator to the target. The uniformity of beam distribution on the target is an important aspect of the simulation.

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