

Abstract Submitted
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Development of a 3D-Printed Collimated ^{90}Sr Beta Source¹ BY-
RON DANIEL, Yale Univ, NUDOT COLLABORATION — Collimated beta particle sources based on ^{90}Sr are common calibration sources for atomic decay detector research and development. Due to the short attenuation length of beta particles in matter, the exact geometry of a collimator can drastically change the rate and energy of beta particles exiting the source. 3D printing allows for the quick and easy prototyping of collimators with custom geometries. I will describe the development of a collimator that interfaces directly to a quartz cuvette for the characterization of liquid scintillator cocktails. Future work will include developing a source for the NuDot detector which aims to reconstruct MeV electrons using the separation of Cherenkov and scintillation light.

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