Abstract Submitted
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The Focal Plane Detector for the John D. Fox Accelerator Laboratory Split-pole Spectrograph JUAN ESPARZA, Florida State University — A new focal plane detector for the re-commissioned Super-Enge split-pole spectrograph has been designed and currently being built at the John D. Fox Accelerator Laboratory at Florida State University. Based on a design from Argonne National Laboratory [1], this focal plane detector system is designed to resolve individual elements and isotopes of medium weight. It consists of a position-sensitive parallel-plate avalanche counter (PPAC), followed by a Bragg curve detector (BCD), both of which are gas filled. The PPAC features gridded foils which has been shown by the Triangle Universities Nuclear Laboratory to yield sub-millimeter spatial resolution [2]. The energy, nuclear charge, and angle of incidence of particles can all be measured in the BCD. This detector will be characterized and calibrated upon completion of construction.

[1] K.E. Rehm and F.L.H. Wolfs, Nucl. Instr. Meth. A273 (1988) 262-272
[2] C. Marshall, et al., *IEEE Trans. Instr. Meth.*, Volume PP, Issue 99, (2018), 1-14

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