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Trace Fitting of a Charged Particle Telescope to use with MoNA[1] GEORGIA VOTTA, NATHAN FRANK, Augustana College, THOMAS BAUMANN, PAUL GUEYE, THOMAS REDPATH, BELEN MONTEAGUDO GODOY, NSCL, ANTHONY KUCHERA, Davidson College, MONA COLLABORATION — Measurements of neutron-unbound states in nuclides typically assume that the resulting charged fragment after neutron emission will be in a bound ground state. This may not always be the case, so a compact charged particle detector telescope composed of five Si detectors and one CsI calorimeter has been developed by the MoNA Collaboration to enable a gamma-ray detection array to be placed around it for unequivocally identifying bound excited states. These experiments require radioactive beams so this device will be used at the National Superconducting Cyclotron Laboratory on the campus of Michigan State University. A test-run with this telescope was performed at the NSCL in January of 2020 using a digital data acquisition system. Traces from each detector were recorded during the run and are being analyzed to assess the performance of the device. This presentation will focus on the progress in this work.

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