Abstract Submitted
for the DNP13 Meeting of
The American Physical Society

Commissioning a Hodoscope Detector[1] ANDREW LULIS, ABDUL MERHI, NATHAN FRANK, Augustana College, DANIEL BAZIN, NSCL, JENNA SMITH, MICHAEL THOENNESSEN, NSCL/MSU, MONA COLLABORATION — Experiments on neutron-rich nuclei are interesting since they test the limits of current nuclear theory. One method to populate neutron-rich nuclei is to utilize the (d,p) reaction in which the beam nucleus picks up a neutron from the target. This heavier nucleus immediately emits a neutron resulting in the same nucleus as the beam but with lower energy. One challenge is to discriminate decay products from unreacted beam particles by their difference in energy. A hodoscope was recently installed at the National Superconducting Cyclotron Laboratory (NSCL) as part of the MoNA-LISA-Sweeper setup to make experiments using a (d,p) reaction possible. The hodoscope is a 5x5 scintillator array consisting of CsI(Na) crystals with a resolution of better than 1%. This presentation will describe the recently commissioned detector and the results of the first data analysis using this device.

[1]Work supported by Augustana College and the National Science Foundation grant #0969173.

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Date submitted: 19 Jul 2013 Electronic form version 1.4