

Abstract Submitted
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Position calibration for a low-energy neutron detector.¹ KATIE THORNE, JENNA DEAVEN, CAROL GUESS, GEORGE PERDIKAKIS, REMCO ZEGERS, Michigan Technological University — A low-energy neutron detector array is being developed for use in (p,n) charge-exchange experiments with radioactive beams. The array will consist of 25 plastic-scintillator bars that are capable of detecting neutrons with energies as low as approximately 200 keV. Since the kinematical reconstructing of a (p,n) reaction is performed using the energy and angle information from the neutron, good energy (measured by time-of-flight) and angle resolutions are important. In the initial testing stage, a single scintillator bar is tested using ²²Na and ²⁵²Cf sources. In the presentation, results from these measurements will be discussed, focusing on the angle resolution of the array.

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