

Abstract Submitted
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Analysis of Cadmium Based Neutron Detector Configurations

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— Due to national security concerns pertaining to the smuggling of special nuclear materials and a small supply of He-3 for use in neutron detectors, there is currently a need for a new kind of neutron detector. Using Monte Carlo techniques I have studied the neutron capture efficiency of an array of cadmium wedge detectors in the presence of a californium source. By using varying numbers of wedges and comparing their capture ratios we will be better able to design future detectors.

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