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Detection Efficiency of the Modular Neutron Array¹ T. BAU-MANN, W.A. PETERS, NSCL, Michigan State University, East Lansing, MI 48824-1321, MONA COLLABORATION — The Modular Neutron Array (MoNA) has been designed as a high-efficiency large-area detector array for neutrons stemming from reactions of fast rare isotope beams. In its current setup, it is optimized for neutron energies between 30 and 100 MeV. MoNA consists of 144 detector modules of plastic scintillator. Two methods to gather experimental data on the detection efficiency were used, one by employing the breakup reaction of ¹¹Be into ¹⁰Be plus a neutron, and one by comparing the response of MoNA to an additional liquid scintillator neutron detector. These experimental data will be presented together with simulated detection efficiencies.

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