

Abstract Submitted
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Measurement of the Response Function of a BC501A Neutron Detector¹ J. MILLER, D. ALEXANDER, A. DANIEL, E.V. HUNGERFORD, University of Houston, M.W. AHMED, M. SIKORA, Duke University/TUNL — A 5" X 2" BC501A neutron detector was used to measure proton recoil spectra at a number of mono-energetic incident neutron energies between 2 and 6 MeV at the Triangle Universities Nuclear Laboratory. The goal of the experiment was to characterize the response function for a variety of known neutron energies so that an unknown neutron spectrum can be obtained by unfolding the detector response to the incident spectrum. We discuss calibration, optimization of the neutron-gamma discrimination, and the progress of the analysis.

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