

Abstract Submitted
for the DNP11 Meeting of
The American Physical Society

Complementary

Neutron

Efficiency Measurements using VANDLE¹ P. COPP, University of Wisconsin La Crosse, W.A. PETERS, Oak Ridge Associated Universities, R. GRZYWACZ, M. MADURGA, S. PAULAUSKAS, University of Tennessee Knoxville, J.A. CIZEWSKI, M.E. HOWARD, P.D. O'MALLEY, B. MANNING, E. MERINO, Rutgers University, Piscataway, NJ, T.N. MASSEY, C. BRUNE, Ohio University, Athens, OH, F. SARAZIN, S. ILYUSKIN, D. WALTER, Colorado School of Mines, Golden, CO, J. BLACKMON, Louisiana State University Baton Rouge, D.W. BARDAYAN, Oak Ridge National Laboratory, I. SPASSOVA, C. MATEI, Oak Ridge Associated Universities — The Versatile Array of Neutron Detectors at Low Energy at the Holifield Radioactive Ion Beam Facility at ORNL is nearly complete for use with a variety of neutron-detection scenarios, including (d,n) reactions in inverse kinematics and beta-delayed neutron spectroscopy. The array is comprised of detector modules with two different sizes of scintillating plastic bars. The smaller modules are 60 cm long while the larger ones are 200 cm long. The efficiency of these modules has been measured by comparing to a calibrated $^{27}\text{Al}(\text{d},\text{n})$ reaction performed at Ohio University, and by comparing to a measured ^{252}Cf decay spectrum. Both results will be presented along with the characterization of the light response of elastically scattered low energy carbon recoils below 30 keV.

¹This work is supported in part by the US DOE and the NSF.

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Date submitted: 29 Aug 2011

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