

Abstract Submitted
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Commissioning Measurements of ORRUBA Detectors¹ C.T. MATTHEWS, J.A. CIZEWSKI, P.D. O'MALLEY, Rutgers University, S.D. PAIN, Oak Ridge National Laboratory — The Oak Ridge Rutgers University Barrel Array (ORRUBA) is a silicon detector array being developed by the Center of Excellence for Stewardship Science at Oak Ridge National Laboratory. The array is comprised of two rings of position-sensitive detectors in a cylindrical setup designed to maximize solid angle coverage for (d,p) measurements in inverse kinematics. Each detector has 4 resistive strips, with readout from each strip-end. At forward angles, detector telescopes are used, comprised of a thin non-resistive detector ($65\mu\text{m}$) for transmission backed by the thicker resistive detector ($1000\mu\text{m}$) for stopping, allowing particle identification in addition to measurement of the angle and energy of the detected particles. For commissioning, the profile of each detector must be tested to insure that it is functioning properly, and to understand its optimal bias voltage and energy resolution. Measurements of leakage current profiles, full-depletion voltages and energy resolution measurements have been completed. The details of the array, its motivation and these commissioning measurements will be reported.

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