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Silicon Detector Deadlayer Measurements¹ MEAGAN WHITE, KATE JONES, RYAN KAPLER, BRIAN MOAZEN, KYLE SCHMITT, University of Tennessee at Knoxville — The Oak Ridge Rutgers Universities Barrel Array (ORRUBA) is a large silicon detector array for measuring ejectiles from transfer reactions [ref]. A large component of ORRUBA is made up of position sensitive silicon strip detectors which use a resistive readout to give position information. The ejectile energy is found by summing the signals on the two ends. This method assumes that the complete energy of the particle is recorded. However, before the particle reaches the active part of the detector, there is a thin layer in which the particle loses energy before it is detected. This layer of the detector is the deadlayer, and to get an accurate ejectile energy for the particle, the energy lost in the deadlayer prior to detection has to be known. We have developed a technique to measure the thickness of the deadlayer using an alpha source and rotating the detector. I will present this technique and the results we have obtained with it.

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