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Decay studies of proton-rich nuclei near 100Sn with AIDA at RIKEN

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The neutron-deficient region of the nuclear chart in the vicinity of the doubly magic nucleus 100Sn is of great interest in nuclear structure physics. Measurement of the decay properties of the spherical N ≈ Z ≈ 50 nuclei in this region acts as a direct test of the shell model around the major shell closures, and can assist in establishing the location of the proton drip-line. An experiment at the Radioactive Ion Beam Factory (RIBF) facility at RIKEN, Japan was carried out to perform these measurements with the state-of-the-art Advanced Implantation Detector Array (AIDA) silicon detection system, the first use of this system on proton-rich nuclei at this facility. This talk presents a discussion of the experiment and the analysis of data collected with AIDA.

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