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## Decay spectroscopy of N ~ Z nuclei in the vicinity of 100Sn

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(On behalf of the EURICA collaboration)

The structure of magic nuclei far away from stability provides vital information on modern shell models. In particular, the doubly magic  $^{100}$ Sn and proton-rich nuclei in its vicinity contains many topics of interest: the limit of proton binding in this mass region, the robustness of the N=Z=50 shell closures, and isospin symmetry among many others. Experimental properties of these nuclei are also relevant for precise predictions of the end stages of the rapid proton-capture process of nuclear astrophysics.

A decay spectroscopy experiment on  $^{100}$ Sn and other  $N\sim Z\sim 50$  nuclei was performed at RIKEN Nishina Center, where a 345-MeV/u  $^{124}$ Xe beam was fragmented on a  $^9$ Be target. The isotopes of interest were identified and implanted on a set of Si detectors, which measured the positrons and protons from subsequent  $\beta$  decays.  $\gamma$  rays emitted from excited states were measured by HPGe detectors placed around the implantation detectors.

A summary of new and more precise experimental results will be presented. Highlights include the discovery of new isotopes,  $\beta$ -decay properties of the heaviest bound N = Z - 1 nuclei, an update on the superallowed Gamow-Teller decay of <sup>100</sup>Sn, and the structure of <sup>96</sup>Cd.

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