

## Search for long-lived isomeric activities "below" $^{132}\text{Sn}$

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The r-process overabundance in the mass region  $A \sim 120$  has been a subject of considerable scientific interest in the last decade. Different nuclear physics phenomena such as shell-quenching and "unreasonably" long beta-decay half-lives were discussed as possible reasons for the observed discrepancy.

Long-lived activities are known to exist throughout a number of odd-Z, even-N and even-Z, odd-N nuclei in the  $A < 132$  region. In the regions around the doubly magic nuclei these single-particle isomers are expected to persist up to the respective shell gap, which in the neutron-rich region may lead to situations, where the excited isomeric state has a half-life longer than the ground state half-life. Therefore, the present proposal focuses on the search for long-lived millisecond beta-decaying isomeric states, placed in vicinity to the  $^{132}\text{Sn}$  nucleus.

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