

Insight the nuclear structure from isomer and decay spectroscopy

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Isomer and beta-decay spectroscopy are performed in one of the key regions of the nuclear chart, namely around the doubly-magic ^{132}Sn . In particular, neutron-rich nuclei beyond $N=82$, $Z=50$ are addressed in an overview of several accomplished measurements. The physics interest in these investigations spans from single-particle excitations, orbital evolution, collectivity and onset of *Electronic address: radomira.lozeva@csnsm.in2p3.fr

deformation to first-forbidden and Gamow-Teller strength at large N/Z ratios. Results from purely prompt, isomeric and beta-decay data of fission products, studied at different experimental facilities will be shown. In addition, future plans for a continuation of these investigations, especially on isomers and their nuclear moments will be presented together with the associated ongoing works.