

[zoom]Proton decay study of the exotic isotopes ^{116,117}La

Thursday 28 October 2021 11:00 (20 minutes)

Measurements of proton decay properties provide valuable spectroscopic information on the structure of nuclei far from stability. In this presentation, I will report the results of our decay-spectroscopy study about the extremely neutron-deficient Lanthanum isotopes ^{116,117}La. These nuclei were produced at the Accelerator Laboratory of the University of Jyväskylä by employing fusion-evaporation reactions, using a ⁶⁴Zn beam at 330 MeV to bombard a ⁵⁸Ni target. In this experiment, the fusion products were separated in flight through the newly commissioned recoil mass separator MARA and implanted into a double-sided silicon strip detector. The proton decay of the ground state of ¹¹⁷La was remeasured and found to be consistent with previous studies. In addition, we observed a new proton decay line, most likely from the ground state of ¹¹⁶La.

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