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Neutron multiplicity from ordinary muon capture in 136Ba and 76Se

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MONUMENT is an international experiment whose results can optimize the theoretical models most suitable for describing matrix elements of neutrinoless double beta decay. This experiment investigates ordinary muon capture in various nuclei. The research focuses on energy and time spectra of gamma radiation.
The objective of this work is to determine the neutron multiplicity from muon capture in the 136Ba and 76Se nuclei. Of particular interest is the intensity of neutron emission arising directly from muon capture. The obtained results are relevant to further studies as they allow estimating the fraction of daughter nuclei whose mass number remains unchanged. Such nuclei are crucial to the MONUMENT experiment. The results can improve the accuracy of determining muon capture parameters.

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