

Structure of $N \geq 126$ nuclei produced in fragmentation of ^{238}U

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The nuclear structure of neutron-rich $N \geq 126$ nuclei have been investigated following their production via relativistic projectile fragmentation of a $E/A=1$ GeV ^{238}U beam on Be target. The cocktail of secondary beam products was separated and identified using the GSI FRagment Separator (FRS). The nuclei of interest were implanted in a high-granularity active stopper detector set-up consisting of 6 double sided silicon strip detectors. The position of the implanted ion was correlated with its subsequent β -decay (detected in the same or neighbouring pixel) and both implants and beta-decay events were measured. The associated gamma-ray transitions were detected with the RISING array, consisting of 15 Euroball cluster Ge-detectors. Time-correlated gamma decays from individually identified nuclear species have been recorded, allowing the clean identification of both β and isomeric decays.

The study focused on the beta-decay of ^{205}Pt and nuclei around it. The initial results of these investigations will be compared with previous studies in nearby $N=126$ nuclei.