^{139}Dy

Xu et al. first identified ^{139}Dy in 1999 and reported the results in "New β-delayed proton precursors in the rare-earth region near the proton drip line" (1999Xu05). A 176 MeV ^{36}Ar beam was accelerated with the Lanzhou sector-focused cyclotron and bombarded an enriched ^{106}Cd target. Proton-γ coincidences were measured in combination with a He-jet type transport system. "A clear 221-keV γ peak and a tiny 384-keV γ peak in the proton-coincident γ(x)-ray spectrum in the ^{36}Ar+^{106}Cd reaction were assigned to the $2^+ \rightarrow 0^+$ and $4^+ \rightarrow 2^+$ γ transitions in the 'daughter' nucleus ^{138}Gd of the βp precursor ^{139}Dy."

Adapted from reference (2013Fr10)

1999Xu05 S. W. Xu, Z. K. Li, Y. X. Xie, Q. Y. Pan *et al.*, Phys. Rev. C **60**, 061302 (1999).

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