

¹⁵²Yb

¹⁵²Yb was observed by Nolte et al. and results were published in the 1982 paper “Seniority isomerism in the N=82 isotone ¹⁵²Yb; favoured β transitions $\pi h_{11/2} \rightarrow \nu h_{9/2}$ ” (1982No13). An enriched ⁹⁶Ru target was irradiated with 238 and 250 MeV ⁵⁸Ni from the Munich MP tandem and postaccelerator and ¹⁵²Yb was formed in the ⁹⁶Ru(⁵⁸Ni,2p) fusion-evaporation reaction. Gamma-ray singles and γ – γ coincidences were measured with a coaxial Ge(Li) detector and a planar Ge detector. “ β -decay schemes of ¹⁵²Yb (3.2 ± 0.3 s), ¹⁵²Tm^(m) (8.0 ± 1.0 s) and ¹⁵¹Tm (3.8 ± 0.8 s) have been derived.” In addition: “The half-life of the isomeric 10^+ state was found to be $39 \pm 5 \mu\text{s}$.” An earlier report of the existence of ¹⁵²Yb was inferred from α -correlation measurements: “Further, correlations were measured between the α lines of ¹⁵⁷Ta – ¹⁵³Tm and ¹⁵⁶Hf–¹⁵²Er that prove a β -decay of the new isotopes ¹⁵³Lu, ¹⁵²Yb, and ¹⁵²Tm.” (1981Ho10). However, no properties of ¹⁵²Yb or its decay were measured.

Adapted from reference (2013Fr10)

- 1981Ho10 S. Hofmann, G. Munzenberg, F. Hessberger, W. Reisdorf *et al.*, Z. Phys. A **299**, 281 (1981).
1982No13 E. Nolte, G. Korschinek, and Ch. Setzensack, Z. Phys. A **309**, 33 (1982).
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