

## $^{112}\text{Cs}$

“Decays of odd-odd  $N - Z = 2$  nuclei above  $^{100}\text{Sn}$ : The observation of proton radioactivity from  $^{112}\text{Cs}$ ” was published in 1994 reporting the discovery of  $^{112}\text{Cs}$  by Page et al. (1994Pa12). A 259 MeV  $^{58}\text{Ni}$  beam bombarded an isotopically enriched  $^{58}\text{Ni}$  target and  $^{112}\text{Cs}$  was produced via the  $p3n$  evaporation channel. The isotopes were separated with the Daresbury Recoil Mass Separator and implanted in a double-sided silicon strip detector. “In accordance with expected alpha decay branching ratios, a correlation analysis identified three events in this group consistent with the decay chain:  $^{112}\text{Cs} \xrightarrow{p} ^{111}\text{Xe} \xrightarrow{\alpha} ^{107}\text{Te} \xrightarrow{\alpha}$ , establishing beyond doubt that this  $A=112$  activity represents the first observation of the proton decay of the new isotope  $^{112}\text{Cs}$ .” A previous search for the proton decay of  $^{112}\text{Cs}$  was unsuccessful (1991He21).

Adapted from reference (2012Ma48)

- 1991He21 F. Heine, T. Faestermann, A. Gillitzer, J. Homolka *et al.*, *Z. Phys. A* **340**, 225 (1991).  
1994Pa12 R. D. Page, P. J. Woods, R. A. Cunningham, T. Davinson *et al.*, *Phys. Rev. Lett.* **72**, 1798 (1994).  
2012Ma48 E. May and M. Thoennessen, *At. Data Nucl. Data Tables* **98**, 960 (2012).

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