^{153}Pr

^{153}Pr was discovered in 1987 by Greenwood in the paper "Identification of new neutron-rich rare-earth isotopes produced in ^{252}Cf fission" (1987Gr12). Spontaneous fission fragments from a ^{252}Cf source were measured with the isotope separation on line (ISOL) system at the Idaho National Engineering Laboratory. ^{153}Pr was identified by mass separation and the measurement of K x-rays. "Identification of the ^{153}Pr isotope was accomplished in two separate experiments, with collection-counting cycle times of 12 and 16 s each. The half-life value was obtained from an average of individual values involving the Nd K x rays and the 50.0-, 141.8-, and 191.8-KeV γ rays. Separate half-life values from the x rays and the γ rays are in excellent agreement, being 4.4 and 4.2 s, respectively." The observation of a 191.7 keV γ ray in spontaneous ^{252}Cf fission (1972Ho08) were incorrect (2010Hw03).

Adapted from reference (2012Ma48)

1972Ho08 F. F. Hopkins, J. R. White, G. W. Phillips, C. F. Moore, and P. Richard, Phys. Rev. C **5**, 1015 (1972).

1987Gr12 R. C. Greenwood, R. A. Anderl, J. D. Cole, and H. Willmes, Phys. Rev. C **35**, 1965 (1987).

2010Hw03 J. K. Hwang, A. V. Ramayya, J. H. Hamilton, S. H. Liu *et al.*, Phys. Rev. C **82**, 034308 (2010).

2012Ma48 E. May and M. Thoennessen, At. Data Nucl. Data Tables **98**, 960 (2012).

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