^{91}Ru

"The Decays of the $T_z = \frac{3}{2}$ β-Delayed Proton Precursors ^{83}Zr, ^{87}Mo and ^{91m}Ru," published in 1983 by Hagberg et al., described the first observation of ^{91}Ru (1983Ha06). A 150 MeV ^{40}Ca beam from the Chalk River MP tandem accelerator bombarded a self-supporting enriched ^{54}Fe target and ^{91}Ru was produced in the fusion evaporation reaction ^{54}Fe(^{40}Ca,2pn). Protons, X-rays and γ-rays were measured in coincidence in order to identify ^{91}Ru. "A proton precursor with a half-life of 7.6±0.8 s was assigned to ^{91}Ru, tentatively to a $1/2^-$ isomeric state." Later in the year, Komninos et al. measured a half-life of 9±1 s which corresponds to the ground state of ^{91}Ru (1983Ko43).

Adapted from reference (2012Ny02)

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