^{93}Zr

Steinberg and Glendenin from Argonne National Laboratory published evidence for ^{93}Zr in their 1950 paper "A Long-Lived Zirconium Activity in Fission" (1950St90). Uranium was irradiated in a pile for ten months and ^{93}Zr was chemically separated four years after the end of the irradiation. The activity was then measured with a thin end-window proportional counter and an internal Geiger counter. "In the present investigation, we have isolated from uranium fission a zirconium activity of $\sim 5 \times 10^6$-yr. half-life, emitting beta-rays of 60±5 kev maximum energy, which is probably Zr^{93}... Thus, the true half-life of Zr^{93} should lie in the range 1.5 to 8.5×10^6 yr." Previously the 63(5) d half-life of ^{95}Zr was incorrectly assigned to ^{93}Zr (1940Sa08).

Adapted from reference (2012Ny02)

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