# $^{98}$Zr

Hübenthal was the first to identify $^{98}$Zr in 1967 as reported in "La chaîne isobarique de masse 98: $^{98}$Zr $\rightarrow$$^{98}$Nb $\rightarrow$$^{98}$Mo dans la fission de l'uranium 235 par neutrons thermiques" (1967Hu08). Thermal neutrons from the Grenoble Siloé reactor irradiated a $^{235}$U target. Beta-decay spectra were recorded with a plastic scintillator following chemical separation. "En [figure] (b) la courbe expérimentale a été décomposée, soit en utilisant les composantes trouvées en [figure] (a), soit en prolongeant la partie comprise entre t=10 mn et t=20 mn, les deux méthodes donnent le même résultat, on voit sur plus d'une décade une période de 31$\pm$3 s que nous attribuons à $^{98}$Zr." [In [figure](b) the experimental curve has been decomposed, either by using components found in [figure] (a) or by extending the part between t=10 min and t=20 min - the two methods give the same result - a half-life of 31$\pm$3 s can be seen over more than one decay period which we attribute to Zr." Previously, a 1 min half-life was observed in zirconium but no firm assignment to $^{98}$Zr was made (1960Or02).

Adapted from reference (2012Ny02)


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