# $^{222}$U

"Identification of $^{222}$U and $^{221}$Pa by $\alpha$-correlation chains" announced the discovery of $^{222}$U in 1983 by Hingmann et al. (1983Hi12). The UNILAC at GSI accelerated $^{40}$Ar to 4.5 MeV/u before bombarding a target of tungsten. Fusion products were separated by velocity and implanted into a surface barrier detector. "The correlation between the two events is certain, because the rate of $^{214}$Ra $\alpha$-decays was extremely low: During the measuring time of 9 h, a total number of only twelve $^{214}$Ra $\alpha$-decays was observed. By means of the maximum likelihood method, a half-life of $(1.0^{+1.2}_{-0.4})$ $\mu$s was deduced from the detected three $^{222}$U decays."

Adapted from reference (2013Fr03)


1983Hi12 R. Hingmann, H. G. Clerc, C. C. Sahm, D. Vermeulen *et al.*, Z. Phys. A **313**, 141 (1983).

2013Fr03 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 345 (2013).



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