

## $^{233}\text{Th}$

In 1935, the discovery of  $^{233}\text{Th}$  was reported by Hahn and Meitner from the Kaiser Wilhelm Institut für Chemie in Berlin Dahlem, in the paper “Die künstliche Umwandlung des Thoriums durch Neutronen: Bildung der bisher fehlenden radioaktiven  $4n + 1$ -Reihe” (1935Ha09). Thorium was irradiated with neutrons with and without paraffin. “Von dieser Substanz konnte durch chemische Trennungen nachgewiesen werden, daß sie mit dem Thorium isotope ist. Sie stellt also offenbar das durch Einfangen eines Neutrons entstandene Thorisotope  $\text{Th}^{233}$  dar, und ihre Bildung wird daher, wie oben gezeigt, durch langsame Neutronen erheblich begünstigt.” [By chemical separation it could be demonstrated that this substance is isotopic with thorium. It thus represents the thorium isotope  $^{233}\text{Th}$  produced by neutron capture and its formation could be enhanced by slow neutrons as shown above.] A 15 min (1934Fe01) and a 24 min (1935Am01) were reported earlier without mass assignment. Less than a month later I. Curie et al. assigned the 25 min half-life to  $^{233}\text{Th}$  without giving credit to Hahn and Meitner although quoting the paper (1935Cu01). Adapted from reference (2013Fr03)

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