

## <sup>207</sup>Tl

The first measurement of the activity due to <sup>207</sup>Tl was reported in 1908 by Hahn and Meitner from the Chemisches Institut der Universität Berlin, in the paper “Aktinium C, ein neues kurzlebige Produkt des Aktiniums” (1908Ha02). An actinium sample was used to measure the  $\alpha$ - and  $\beta$ -ray activities of the decay products separately. Following the separation of the  $\beta$  emitter <sup>211</sup>Pb (AcA, later reclassified as AcB), a new  $\beta$  emitter with the half-life of 5.10 min was observed in addition to the known 2.15 min  $\alpha$  emitter <sup>211</sup>Bi (AcB, later reclassified as AcC). “Das neue Produkt Aktinium C wurde auf verschiedene Weise von Aktinium A getrennt hergestellt und seine Zerfallsperiode zu 5,10 Min. bestimmt. Es sendet die bis jetzt dem Aktinium B zugeschriebenen  $\beta(+\gamma)$ -Strahlen aus, emittiert aber keine  $\alpha$ -Strahlen.” [The new actinium product, actinium C was separated from actinium A in several ways and its half-life was determined to be 5.10 min. It emits  $\beta(+\gamma)$  rays which had been assigned to actinium B, but does not emit  $\alpha$  rays.] This actinium C was later reclassified as actinium C” and corresponds to <sup>207</sup>Tl.

Adapted from reference (2013Fr04)

1908Ha02 O. Hahn and L. Meitner, Phys. Z. **9**, 649 (1908).

2013Fr04 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 365 (2013).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152”