

## **<sup>213</sup>Pa**

The discovery of <sup>213</sup>Pa was announced by Ninov et al. in the 1995 paper “Identification of the neutron-deficient isotopes <sup>213,214</sup>Pa” (1995Ni05). The UNILAC accelerator of GSI, Darmstadt delivered a <sup>51</sup>V beam onto <sup>170</sup>Er targets. Evaporation residues were separated in-flight and measured with a position sensitive PIPS detector. “From the time differences between implantation of the evaporation residues and the subsequent  $\alpha$ -decays a half-life of  $T_{1/2}=(5.3^{+4.0}_{-1.6})$  ms was measured for <sup>213</sup>Pa, while a value of  $T_{1/2}=(17\pm 3)$  ms was obtained for <sup>214</sup>Pa.”

Adapted from reference (2013Fr03)

1995Ni05 V. Ninov, F. P. Hessberger, S. Hofmann, H. Folger *et al.*, *Z. Phys. A* **351**, 125 (1995).

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

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