

## $^{218}\text{Pa}$

“Alpha decay properties of new protactinium isotopes” announced the 1979 discovery of  $^{218}\text{Pa}$  by Schmidt et al. (1979Sc09). A tantalum target was irradiated with an argon beam with energy varied between 165 and 202 MeV at GSI, Darmstadt. Residues were separated by velocity and were registered with a counter telescope consisting of a transmission secondary electron detector and a silicon surface barrier detector. “The assignment of the  $\alpha$ -lines to the different Pa isotopes is based on the correlation analysis and on the excitation functions. All nuclei except  $^{222}\text{Pa}$  were observed in the reaction  $^{40}\text{Ar}+^{181}\text{Ta}\rightarrow^{221-x}\text{Pa}+xn$ .” The given half-life was  $0.12_{-2}^{+4}$  ms for  $^{218}\text{Pa}$ .

Adapted from reference (2013Fr03)

1979Sc09 K. H. Schmidt, W. Faust, G. Munzenberg, H. G. Clerc *et al.*, Nucl. Phys. A **318**, 253 (1979).

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

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