

## **<sup>199</sup>Fr**

Tagaya et al. reported the discovery of <sup>199</sup>Fr in the 1999 paper “The  $\alpha$ -decay energies and halfives of <sup>195g,m</sup>At and <sup>199</sup>Fr” (1999Ta20). <sup>169</sup>Tm targets were bombarded with a 215 MeV <sup>36</sup>Ar beam from the RIKEN ring cyclotron to form <sup>199</sup>Fr in (6n) fusion-evaporation reactions. Recoils were separated with the gas-filled recoil separator GARIS and implanted in a position sensitive detector which also recorded subsequent  $\alpha$  decay. “The  $E_\alpha$  and  $T_{1/2}$  of <sup>199</sup>Fr are  $7655 \pm 40$  keV and  $12_{-4}^{+10}$  ms, respectively.”

Adapted from reference (2013Fr09)

1999Ta20 Y. Tagaya, S. Hashimoto, K. Morita, Y. H. Pu *et al.*, Eur. Phys. J. A **5**, 123 (1999).

2013Fr09 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 497 (2013).

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