

## <sup>105</sup>Te

In 2006, Seweryniak et al. published the first identification of <sup>105</sup>Te in “ $\alpha$  decay of <sup>105</sup>Te” (2006Se08). A <sup>50</sup>Cr target was bombarded with 204, 214, and 224 MeV <sup>58</sup>Ni beams accelerated by the Argonne Tandem Linac Accelerator System and <sup>105</sup>Te was formed in the (3n) fusion-evaporation reaction. Recoil products were separated with the Argonne Fragment Analyzer FMA and implanted in a double-sided strip detector which also recorded subsequent  $\alpha$ -decays. “The <sup>105</sup>Te half-life was obtained from the decay times of the <sup>105</sup>Te events using the maximum likelihood method. As a result, an energy of  $E_\alpha = 4720(50)$  keV, corresponding to  $Q_\alpha = 4900(50)$  keV, and a half-life of  $T_{1/2} = 0.7(-0.17 +0.25)$   $\mu$ s were extracted.” Two months later Liddick et al. independently reported a half-life of 620(70) ns for <sup>105</sup>Te (2006Li41).

Adapted from reference (2013Ka01)

- 2006Li41 S. N. Liddick, R. Grzywacz, C. Mazzocchi, R. D. Page *et al.*, Phys. Rev. Lett. **97**, 082501 (2006).  
2006Se08 D. Seweryniak, K. Starosta, C. N. Davids, S. Gros *et al.*, Phys. Rev. C **73**, 061301 (2006).  
2013Ka01 J. Kathawa, C. Fry, and M. Thoennessen, At. Data Nucl. Data Tables **99**, 22 (2013).

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