

## **<sup>193</sup>Pb**

Newton et al. reported the first observation of <sup>193</sup>Pb in the 1974 paper “Rotational bands in the light odd-mass Tl nuclei” (1974Ne16). A 124 MeV <sup>19</sup>F beam from the Manchester University LINAC was incident on a <sup>181</sup>Ta target forming <sup>193</sup>Pb in the (7n) fusion-evaporation reaction. Conversion electrons and  $\gamma$ -ray spectra were measured. “The only two lines which we could definitely assign to the decay of <sup>193</sup>Pb were at 3392 and 366 keV... The half-lives for these two  $\gamma$ -rays were found to be  $5.0\pm 0.6$  min and  $5.8\pm 0.3$  min, respectively.” These half-lives correspond to an isomeric state and the ground state of <sup>193</sup>Pb has not been observed yet.

Adapted from reference (2013Fr04)

1974Ne16 J. O. Newton, F. S. Stephens, and R. M. Diamond, Nucl. Phys. A **236**, 225 (1974).

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

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