

## **<sup>184</sup>Tl**

In the 1976 paper “Observation of  $\alpha$ -decay in thallium nuclei, including the new isotopes <sup>184</sup>Tl and <sup>185</sup>Tl” by Toth et al. reported first evidence of <sup>184</sup>Tl ([1976To06](#)). The Oak Ridge isochronous cyclotron accelerated <sup>14</sup>N to 168 MeV which then impinged on WO<sub>3</sub> targets enriched in <sup>180</sup>W. <sup>184</sup>Tl was produced in (10n) fusion-evaporation reactions, and identified in the UNISOR isotope separator facility. “At A = 184 two  $\alpha$ -groups, 5.99 and 6.16 MeV, are assigned to the new isotope <sup>184</sup>Tl because they decay with the same half-life.” It is interesting to note that less than four weeks after the submission of the paper, seven of the co-authors were also co-authors on a submission reporting the “New isotope <sup>184</sup>Tl” ([1976Co24](#)) without referencing the first paper.

Adapted from reference ([2013Fr04](#))

- [1976Co24](#) J. D. Cole, J. H. Hamilton, A. V. Ramayya, W. G. Nettles *et al.*, Phys. Rev. Lett. **37**, 1185 (1976).  
[1976To06](#) K. S. Toth, M. A. Ijaz, J. Lin, E. L. Robinson *et al.*, Phys. Lett. B **63**, 150 (1976).  
[2013Fr04](#) C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 365 (2013).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”