

## $^{118}\text{Tc}$

The discovery of  $^{118}\text{Tc}$  was reported in the 2010 article “Identification of 45 New Neutron-Rich Isotopes Produced by In-Flight Fission of a  $^{238}\text{U}$  Beam at 345 MeV/nucleon,” by Ohnishi et al. ([2010Oh02](#)). The experiment was performed at the RI Beam Factory at RIKEN, where the new isotopes were created by in-flight fission of a 345 MeV/nucleon  $^{238}\text{U}$  beam on a beryllium target. The isotopes were separated and identified with the BigRIPS superconducting in-flight separator. The results for the new isotopes discovered in this study were summarized in a table. Clear evidence for the existence of  $^{118}\text{Tc}$  is shown in the A-Q spectra. The paper does not specifically claim the discovery of the isotope because of a previous publication ([1995CzZZ](#)). However, this reference was only a conference proceeding and the apparent discovery of  $^{118}\text{Tc}$  was not included in the subsequent refereed publication ([1997Be70](#)).

Adapted from reference ([2012Ny02](#))

- [1995CzZZ](#) S. Czajkowski, F. Ameil, P. Armbruster, M. Bernas *et al.*, Proc. Intern. Conf on Exotic Nuclei and Atomic Masses, Arles, France, June 19-23, 1995, p. 553 (1995).
- [1997Be70](#) M. Bernas, C. Engelmann, P. Armbruster, S. Czajkowski *et al.*, Phys. Lett. B **415**, 111 (1997).
- [2010Oh02](#) T. Ohnishi, T. Kubo, K. Kusaka, A. Yoshida *et al.*, J. Phys. Soc. Jap. **79**, 073201 (2010).
- [2012Ny02](#) A. Nystrom and M. Thoennessen, At. Data Nucl. Data Tables **98**, 95 (2012).

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)”