^{100}Y

The identification of ^{100}Y was first reported by Pfeiffer et al. in their 1977 paper "Gamma Spectroscopy of Some Short-Lived Fission Products with the Isotope Separator Lohengrin" (1977Pf01). ^{235}U targets were irradiated with neutrons from the Grenoble high flux reactor. The Lohengrin mass separator was used to identify the fission fragments by measuring the mass-to-charge ratio as well as the energy distribution and γ-ray spectra. "With the separator Lohengrin two groups of gamma-lines have been observed on mass 100. These lines have been separated according to their half-life ($T_{1/2}$ = 0.8 $\pm$ 0.3 s and $T_{1/2}$ = 7.0 $\pm$ 0.5 s) and attributed respectively to the decays of ^{100}Y and ^{100}Zr." Another half-life (0.55 $\pm$ 0.15 s) was published a couple months later in March 1977 (1977Kh03). It is interesting to note that the submission date is listed as May 10, 1977. It is also not resolved which of the two states corresponds to the ground state of ^{100}Y (2021Si08,2021Ko07).

Adapted from reference (2012Ny02)

1977Kh03 T. A. Khan, W. D. Lauppe, K. Sistemich, H. Lawin *et al.*, Z. Phys. A **283**, 105 (1977).

1977Pf01 B. Pfeiffer, J. P. Bocquet, J. A. Pinston, R. Roussille *et al.*, J. Phys. (Paris) **38**, 9 (1977).

2012Ny02 A. Nystrom and M. Thoennessen, At. Data Nucl. Data Tables **98**, 95 (2012).

2021Ko07 F. G. Kondev, M. Wang, W. J. Huang, S. Naimi, and G. Audi, Chin. Phys. C **45**, 030001 (2021).

2021Si08 B. Singh and J. Chen, Nucl. Data Sheets **172**, 1 (2021).

Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"