

## <sup>103</sup>Mo

<sup>103</sup>Mo was identified in 1963 by Kienle et al. from the Technical University München in the paper “Nachweis kurzlebiger Molybdän-Spaltprodukte und Zerfall ihrer Technetium-Töchter III. Zerfallsreihe: <sup>103</sup>Mo–<sup>103</sup>Tc–<sup>103</sup>Ru” (1963Ki12). Uranium oxide and uranyl acetate were bombarded with neutrons and the fission products were chemically separated. <sup>103</sup>Mo was identified by measuring  $\gamma$ -ray spectra following chemical separation. “Die Halbwertszeit des bisher unbekanntes <sup>103</sup>Mo, der Mutter von <sup>103</sup>Tc, wurde aus dem Verhältnis der <sup>103</sup>Tc ( $T_{1/2} = 50$  sec) zur <sup>104</sup>Tc ( $T_{1/2} = 18$  min) Aktivität als Funktion der Abtrennzeit der Molybdänisotope von den Spaltprodukten bestimmt.” [The half-life of the hitherto unknown <sup>103</sup>Mo - the mother of <sup>103</sup>Tc - was determined from the <sup>103</sup>Tc ( $T_{1/2} = 50$  sec) to <sup>104</sup>Tc ( $T_{1/2} = 18$  min) activity ratio as function of the separation time of molybdenum isotopes from the fission products.]

Adapted from reference (2012Pa21)

- 1963Ki12 P. Kienle, F. Baumgartner, B. Weckermann, and U. Zahn, *Radiochim. Acta* **1**, 84 (1963).
- 2012Pa21 A. M. Parker and M. Thoennessen, *At. Data Nucl. Data Tables* **98**, 812 (2012).

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