^{145}Xe

Bergmann et al. reported the identification of ^{145}Xe in the 2003 paper "Beta-decay properties of the neutron-rich $^{94-99}$Kr and $^{142-147}$Xe" (2003Be05). Uranium fission was induced with a pulsed beam of 1 or 1.4 GeV protons from the CERN proton synchrotron booster facility. Reaction products were separated with the on-line isotope separator ISOLDE and the half-lives were measured with a cylindrical 4π long neutron-counter. "There is only partial agreement between the results of the present experiment and the existing data. In particular, the half-lives from the earlier indirect radiochemical measurements (quoted by nuclear data evaluators for ^{95}Kr and ^{144,145}Xe) deviate considerably from our results, indicating that these identifications probably were not correct." The measured half-lives are listed in a table as 188(4) ms for ^{145}Xe. The previous measurements mentioned in the quotes referred to a half-life of 900(300) ms half-life for ^{145}Xe (1971Wo02).

Adapted from reference (2013Ka01)

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