^{106}Mo

Hastings et al. discovered ^{106}Mo as reported in the 1969 paper "Fractional cumulative yields of ^{103}Mo, ^{105}Mo and ^{106}Mo from thermal-neutron induced fission of ^{235}U" (1969Ha59). Enriched ^{235}U was irradiated with thermal neutrons in the pneumatic tube facility of the Oak Ridge Research Reactor. The resulting activities were measured with a sodium iodide scintillation crystal and a Geiger-Müller detector following chemical separation. "Since no half-life has been reported for ^{106}Mo, results were obtained from a least-squares analysis in which both intercept and half-life were allowed to vary. A value of 9.5±0.5 sec was obtained for the half-life of ^{106}Mo." In an earlier measurement, only an upper limit of 10 s was determined (1965Vo06).

Adapted from reference (2012Pa21)

1965Vo06 A. von Baeckmann and H. Feuerstein, Radiochim. Acta **4**, 111 (1965).

1969Ha59 J. D. Hastings, D. E. Troutner, and R. L. Ferguson, Radiochim. Acta **11**, 51 (1969).

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"