^{89}Mo

Pardo et al. observed ^{89}Mo in 1980 as reported in "Mass and excited states of the nucleus ^{89}Mo" (1980Pa02). A molybdenum target was bombarded with a 70 MeV ^{3}He beam produced by the Michigan State University cyclotron and ^{89}Mo was formed in the reaction ^{92}Mo(^{3}He,^{6}He)^{89}Mo. ^{89}Mo was identified in the focal plane of an Enge split-pole spectrograph with a two wire, charge-division proportional counter. "The mass excess of ^{89}Mo has been measured using the ^{92}Mo(^{3}He,^{6}He) reaction at 70-MeV bombarding energy. The mass excess was determined to be -75.008 ± 0.015 MeV." The half-life of an isomeric state (190(15) ms) was published later in the same year (1980Ga16) and the half-life the ground state (2.15(20) min) was reported a year later (1981Ga05). A previously reported 7.1 min half-life for ^{89}Mo was incorrect (1963Bu06) and another attempt to observe ^{89}Mo was unsuccessful (1975Ha11).

Adapted from reference (2012Pa21)

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