

¹⁶¹Sm

¹⁶¹Sm was observed in 1998 by Ichikawa et al. as described in “Identification of ¹⁶¹Sm and ¹⁶⁵Gd” (1998Ic02). ²³⁸U targets were bombarded with 20 MeV protons from the JAERI tandem accelerator facility. ¹⁶¹Sm was separated with a gas-jet coupled thermal ion source system in the JAERI-ISOL. Beta- and gamma-rays were measured with plastic scintillator and Ge detectors, respectively. “The new isotope ¹⁶¹Sm was identified by observing the K x rays of Eu in the A=177 fraction, as shown in the inset of [the figure]. The γ ray of 263.7 keV coincident with the Eu K x rays is associated with the β^- decay of ¹⁶¹Sm. The intensities of the Eu K $_{\alpha}$ X and 263.7 keV γ rays decayed with half-lives of 5.0 ± 0.6 s, and 4.4 ± 0.8 s, respectively as shown in [the figure].”

Adapted from reference (2013Ma01)

1998Ic02 S. Ichikawa, K. Tsukada, I. Nishinaka, Y. Hatsukawa *et al.*, Phys. Rev. C **58**, 1329 (1998).

2013Ma01 E. May and M. Thoennessen, At. Data Nucl. Data Tables **99**, 1 (2013).

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