^{157}Sm

D'Auria et al. identified ^{157}Sm in the 1973 paper "The decay of ^{160}Eu" (1973Da05). Natural gadolinium metal chips and enriched ^{160}Gd samples were irradiated with 14.8 MeV neutrons from a TNC neutron generator at Simon Fraser University and ^{157}Sm was produced in (n,α) reactions. X- and γ-rays were measured with Ge(Li) spectrometers. "A second component of 8$\pm$1 min is observed in these studies associated with several γ rays. The most likely assignment appears to be the decay of ^{157}Sm, but this could not be determined unambiguously." Previously reported half-lives of 0.5(1) min (1960Wi10) and 83(2) s (1972Mo28) were incorrect. Less than 4 months later Kaffrell independently reported a 8.0(5) min half-life for ^{157}Sm (1973Ka10).

Adapted from reference (2013Ma01)

1960Wi10 R. G. Wille and R. W. Fink, Phys. Rev. **118**, 242 (1960).

1972Mo28 N. A. Morcos, D. E. Adams, W. D. James, and P. K. Kuroda, Phys. Rev. C **6**, 862 (1972).

1973Da05 J. M. D'Auria, R. D. Guy, and S. C. Gujrathi, Can. J. Phys. **51**, 686 (1973).

1973Ka10 N. Kaffrell and N. Trautmann, Z. Naturforsch. **28**, 541 (1973).

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

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