

## $^{162}\text{Sm}$

Ichikawa et al. reported the first observation of  $^{162}\text{Sm}$  in “ $\beta$ -decay half-lives of new neutron-rich rare-earth isotopes  $^{159}\text{Pm}$ ,  $^{162}\text{Sm}$ , and  $^{166}\text{Gd}$ ” in 2005 ([2005Ic02](#)).  $^{238}\text{U}$  targets were bombarded with 15.5 MeV protons from the JAERI tandem accelerator facility.  $^{162}\text{Sm}$  was separated with a gas-jet coupled thermal ion source system in the JAERI-ISOL. Beta- and X/gamma-rays were measured with a sandwich-type plastic scintillator and two Ge detectors, respectively. “In addition to these  $\gamma$  transitions, previously unobserved  $\gamma$  lines having a half-life of  $\sim 2.5$  s and energies of 36.0, 736.6, and 741.1 keV are also seen in the spectrum. None of these lines are associated with the decay of the contaminant isotopes already identified. Thus, we assign these new transitions to the  $\beta^-$  decay of  $^{162}\text{Sm}$ .”

Adapted from reference ([2013Ma01](#))

[2005Ic02](#) S. Ichikawa, M. Asai, K. Tsukada, H. Haba *et al.*, Phys. Rev. C **71**, 067302 (2005).

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

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