

## <sup>133</sup>Sn

In the 1973 article “Proton Particle States in the Region Around <sup>132</sup><sub>50</sub>Sn<sub>82</sub>” Borg et al. reported the observation of <sup>133</sup>Sn ([1973Bo42](#)). Neutrons from the Studsvik R2-O swimming-pool reactor were used to fission <sup>235</sup>U. <sup>133</sup>Sn was separated and identified with the OSIRIS isotope separator on-line. In order to observe the short-lived <sup>133</sup>Sn it was necessary to raise the energy threshold for the β-decay measurement: “In this way a new half-life of 1.47±0.04 sec was observed, which is in reasonable agreement with the expected value for <sup>133</sup>Sn.” Previously reported half-lives of 39(15) s ([1963Gr13](#)) and 55 s ([1966St25](#)) could not be confirmed.

Adapted from reference ([2011Am01](#))

- [1963Gr13](#) A. E. Greendale and D. L. Love, *Anal. Chem.* **35**, 1712 (1963).  
[1966St25](#) P. O. Strom, D. L. Love, A. E. Greendale, A. A. Delucchi *et al.*, *Phys. Rev.* **144**, 984 (1966).  
[1973Bo42](#) S. Borg, G. B. Holm, and B. Rydberg, *Nucl. Phys. A* **212**, 197 (1973).  
[2011Am01](#) S. Amos, J. L. Gross, and M. Thoennessen, *At. Data Nucl. Data Tables* **97**, 383 (2011).

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