

^{102}Sn

The discovery of ^{102}Sn was credited to the paper “Identification of the Doubly-Magic Nucleus ^{100}Sn in the reaction $^{112}\text{Sn}+^{nat}\text{Ni}$ at 63MeV/nucleon” by Lewitowicz et al. in 1994 ([1994Le27](#)). A beam of 63 MeV/nucleon ^{112}Sn bombarded a nickel target at GANIL and ^{102}Sn was separated and identified using the Alpha and LISE3 spectrometers. “It is then possible to calculate for a group of events, selected on the basis of the Z and A/Q, the masses of the individual ions from the measured TKE and TOF. The resulting mass distributions for $^{104}\text{Sn}^{+50}$, $^{102}\text{Sn}^{+49}$, $^{100}\text{Sn}^{+48}$ and $^{105}\text{Sn}^{+50}$, $^{103}\text{Sn}^{+49}$, $^{101}\text{Sn}^{+48}$, are given in Figs. 2c and 2d respectively.” Two months earlier, Schneider et al. ([1994Sc22](#)) submitted their observation of ^{102}Sn , however, they acknowledged the work by Lewitowicz et al.: “Recently, an alternative production mechanism has been tested by using intermediate-energy projectile-fragmentation of 58 A·MeV ^{112}Sn at the LISE separator at GANIL. In this study, all the light ^{112}Sn isotopes down to ^{101}Sn could be identified” ([1994Le27](#)), referring to an article in the GANIL newsletter Nouvelles de GANIL ([1993Le30](#)).

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

- [1993Le30](#) M. Lewitowicz, R. Anne, G. Auger, D. Bazin *et al.*, Nouvelles de GANIL **48**, 7 (1993).
- [1994Le27](#) M. Lewitowicz, R. Anne, G. Auger, D. Bazin *et al.*, Phys. Lett. B **332**, 20 (1994).
- [1994Sc22](#) R. Schneider, J. Friese, J. Reinhold, K. Zeitelhack *et al.*, Z. Phys. A **348**, 241 (1994).
- [2011Am01](#) S. Amos, J. L. Gross, and M. Thoennessen, At. Data Nucl. Data Tables **97**, 383 (2011).

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