

## $^{286}\text{Nh}$

In the 2010 paper “Synthesis of a new element with atomic number  $Z = 117$ ”, Oganessian et al. reported the first observation of  $^{286}\text{113}$  ([2010Og01](#)). A  $^{249}\text{Bk}$  target was bombarded with 252 MeV and 247 MeV  $^{48}\text{Ca}$  beam from the Dubna U400 cyclotron to form  $^{293}\text{117}$  and  $^{294}\text{117}$  in (4n) and (3n) evaporation reactions, respectively.  $^{286}\text{Nh}$  was populated by subsequent  $\alpha$ -decays. The residues were separated with a gas-filled recoil separator and implanted in a semiconductor detector array. Alpha particle decay and spontaneous fission events were recorded in this array and in eight detectors arranged in a box configuration around the implantation detector. “The decay properties of the neighboring isotopes  $^{293}\text{117}$  and  $^{294}\text{117}$ , their daughters  $^{289}\text{115}$  and  $^{290}\text{115}$ , as well as granddaughters  $^{285}\text{113}$  and  $^{286}\text{113}$ , do not display substantial differences.” One chain involving  $^{286}\text{Nh}$  was observed.

Adapted from reference ([2013Th02](#))

[2010Og01](#) Yu. Ts. Oganessian, F. Sh. Abdullin, P. D. Bailey, D. E. Benker *et al.*, *Phys. Rev. Lett.* **104**, 142502 (2010).

[2013Th02](#) M. Thoennessen, *At. Data Nucl. Data Tables* **99**, 312 (2013).

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