

¹⁵Ne

¹⁵Ne was discovered by Wamers et al. in the 2014 paper “First Observation of the Unbound Nucleus ¹⁵Ne” (2014Wa09). A secondary 500 MeV/u ¹⁷Ne beam produced by the heavy-ion synchrotron SIS at GSI bombarded carbon and polyethylene targets and the two-proton unbound ¹⁵Ne was produced in a two-neutron removal reaction. The two protons and the ¹³O fragments from the decay of ¹⁵Ne were detected and analyzed after deflection by the large-gap dipole magnet ALADIN. “The ¹⁵Ne ground state was found to be unstable towards ¹³O + p + p decay by 2.522(66) MeV, which corresponds to an atomic mass excess of $M(^{15}\text{Ne}) = 40.215(69)$ MeV.”

Adapted from reference (2015Th03)

2014Wa09 F. Wamers, J. Marganec, F. Aksouh, Yu. Aksyutina *et al.*, Phys. Rev. Lett. **112**, 132502 (2014).

2015Th03 M. Thoennessen, Int. J. Mod. Phys. E **24**, 1530002 (2015).

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