

## <sup>19</sup>Na

The first observation of <sup>19</sup>Na was described by Cerny et al. “New nuclides <sup>19</sup>Na and <sup>23</sup>Al observed via the (p,<sup>6</sup>He) reaction” in 1969 ([1969Ce01](#)). A <sup>24</sup>Mg target was bombarded with 54.7 MeV protons from the Berkeley 88-in. cyclotron. <sup>19</sup>Na was produced in the reaction <sup>24</sup>Mg(p,<sup>6</sup>He) and identified by measuring the <sup>6</sup>He in a two-counter telescope. “The mass excess of <sup>19</sup>Na is determined to be 12.974±0.070 MeV [12C=0]... We will take it to be the ground state noting that in either event <sup>19</sup>Na is proton unstable; with this assumption, <sup>19</sup>Na is unbound to <sup>18</sup>Ne + p by 366±70 keV.”

Adapted from reference ([2012Th10](#))

[1969Ce01](#) J. Cerny, R. A. Mendelson Jr., G. J. Wozniak, J. E. Esterl, and J. C. Hardy, Phys. Rev. Lett. **22**, 612 (1969).

[2012Th10](#) M. Thoennessen, At. Data Nucl. Data Tables **98**, 933 (2012).

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