^{28}F

The first observation of neutron-unbound ^{28}F was reported by Christian et al. in 2012 in "Exploring the Low-Z Shore of the Island of Inversion at N =19" (2012Ch02). A secondary beam of 62 MeV/u ^{29}Ne produced by the Michigan State Coupled Cyclotron Facility and the A1900 fragment separator bombarded a beryllium target and ^{28}F was produced in a one-proton removal reaction. "The technique of invariant mass spectroscopy has been used to measure, for the first time, the ground state energy of neutron-unbound ^{28}F, determined to be a resonance in the ^{27}F + n continuum at 220(50) keV." The instability of ^{28}F had been demonstrated in 1999 by Sakurai et al. (1999Sa06).

1999Sa06 H. Sakurai, S. M. Lukyanov, M. Notani, N. Aoi *et al.*, Phys. Lett. B **448**, 180 (1999).

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