

¹⁵F

¹⁵F was first observed by KeKelis et al. in the 1978 paper “Masses of the unbound nuclei ¹⁶Ne, ¹⁵F, and ¹²O” (1978Ke06). A neon gas target was bombarded with 87.8 MeV ³He particles from the Berkeley 88-inch cyclotron. ¹⁵F was produced in the transfer reaction ²⁰Ne(³He, ⁸Li) and identified by measuring the ejectiles in a quadrupole-sextupole-dipole (QSD) spectrometer. “The observed Q value of the ground state transition of -29.73 ± 0.18 MeV corresponds to a mass excess of 16.67 ± 0.18 MeV for ¹⁵F.” It should be mentioned that ¹⁵F was observed independently by Benenson et al. (1978Be26), submitted only a month later and published in the same issue, following the paper by KeKelis et al.. KeKelis acknowledged the Benenson results: “Our values for the mass excess and width of the ¹⁵F g. s. agree well with the results in Ref. (1978Be26), which became available subsequent to the completion of our paper.”

Adapted from reference (2012Th01)

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