

^{22}Mg

The first observation of ^{22}Mg was reported by Ajzenberg-Selove et al. in the 1961 paper “Energy levels of Na^{21} and Mg^{22} ” (1961Aj03). ^3He ions were accelerated to 4–5 MeV by the Los Alamos vertical Van de Graaff generator and bombarded a neon target. ^{22}Mg was produced in the reaction $^{20}\text{Ne}(^3\text{He},n)$ and identified by measuring neutrons with a NE102 scintillator. “ Mg^{22} , here reported for the first time, has a mass excess (M–A) of -0.14 ± 0.08 Mev (C^{12} reference) from $Q = -0.043\pm 0.08$ Mev for $\text{Ne}^{20}(\text{He}^3,n)\text{Mg}^{22}$.” Previously a 130 ms activity was assigned to either ^{23}Al or ^{22}Mg (1954Ty33).

Adapted from reference (2012Th10)

- 1954Ty33 H. Tyren and P. A. Tove, Phys. Rev. **96**, 773 (1954).
1961Aj03 F. Ajzenberg-Selove, L. Cranberg, and F. S. Dietrich, Phys. Rev. **124**, 1548 (1961).
2012Th10 M. Thoennessen, At. Data Nucl. Data Tables **98**, 933 (2012).

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