

⁴⁶Fe

⁴⁶Fe was discovered by Borrel et al. at Grand Accélérateur National D'ions Lourds (GANIL) in France in 1992, as reported in the paper “The decay modes of proton drip-line nuclei with A between 42 and 47” (1992Bo37). A 69 A·MeV ⁵⁸Ni beam was incident on a natural nickel target and the projectile fragments were separated using the Ligne d'Ions Super Epluchés (LISE) spectrometer. ⁴⁶Fe was identified by time of flight and energy loss measurements. “Another step is taken towards the proton dripline with the identification of ⁴⁶Fe. Sixteen events are obtained in nineteen hours.” The half-life was experimentally determined via maximum-likelihood analysis of the time spectrum to be 20_{-8}^{+20} ms.

Adapted from reference (2010Sc18)

1992Bo37 V. Borrel, R. Anne, D. Bazin, C. Borcea *et al.*, *Z. Phys. A* **344**, 135 (1992).

2010Sc18 A. Schuh, A. Fritsch, M. Heim, A. Shore, and M. Thoennessen, *At. Data Nucl. Data Tables* **96**, 817 (2010).

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