

²⁶Al

The first observation of ²⁶Al was reported by Frisch from Birkbeck College in London in “Induced radioactivity of sodium and phosphorus” in 1934 ([1934Fr01](#)). A 1 mCi thorium B + C α source was used to irradiate sodium targets and the subsequent activity was measured with a Geiger-Müller counter. “Three different sodium compounds (NaCl, NaF, Na₂C₂O₄) have been investigated; they all showed a fairly strong activity, dying off very quickly. The half value period has been determined by recording the impulses on a rotating drum, the whole decay curve being recorded 21 times. The half value period was found to be 7 ± 1 seconds... So for sodium and phosphorus the reactions would be $_{11}\text{Na}^{23} + \alpha = _{13}\text{Al}^{26} + \text{neutron}$ and $_{15}\text{P}^{31} + \alpha = _{17}\text{Cl}^{34} + \text{neutron}$, respectively.” This state corresponds to an isomer and the half-life of the ground state ($\sim 10^6$ y) was measured twenty years later ([1954Si19](#)).

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

- [1934Fr01](#) O. R. Frisch, *Nature* **133**, 721 (1934).
[1954Si19](#) J. R. Simanton, R. A. Rightmire, A. L. Long, and T. P. Kohman, *Phys. Rev.* **96**, 1711 (1954).
[2012Th10](#) M. Thoennessen, *At. Data Nucl. Data Tables* **98**, 933 (2012).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”