

¹³N

Curie and Joliot from the University of Paris presented first evidence of ¹³N in 1934 in “Un nouveau type de radioactivité” (1934Cu01). Aluminum, boron, and magnesium samples were irradiated by polonium α -particles and their activities were measured with a Geiger Müller counter as a function of time. The half-life of the activity created in aluminum was 3.25 min and the reaction ${}^{27}_{13}\text{Al} + {}^4_2\text{He} = {}^{30}_{15}\text{P} + {}^1_0\text{n}$ was proposed: “On obtient un résultat analogue avec le bore et le magnésium mais les périodes de décroissance sont différentes, 14 minutes pour le bore et 2 minutes 30 secondes pour le magnésium... Une réaction analogue pourrait être envisagée pour le bore et le magnésium, les noyaux instables étant ${}^{13}_7\text{N}$ et ${}^{27}_{14}\text{Si}$.” [We obtain a similar result with boron and magnesium, but the decay periods are different, 14 minutes for boron and 2 minutes and 30 seconds for magnesium ... A similar reaction could be considered for boron and magnesium with the unstable nuclei ${}^{13}_7\text{N}$ and ${}^{27}_{14}\text{Si}$.]

Adapted from reference (2012Th01)

1934Cu01 I. Curie and F. Joliot, *Compt. Rend.* **198**, 254 (1934).

2012Th01 M. Thoennessen, *At. Data Nucl. Data Tables* **98**, 43 (2012).

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