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THE HALF LIVES OF ALUMINUM²⁵ AND ALUMINUM²⁶

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The availability of separated isotopes of Mg makes it easy to determine the half life of Al^{25} , a member of the Wigner series which has long been suspected to have a half life of approximately 7 seconds, but which has not been confirmed because of the masking 7 second activity of Al^{26} .

Mg^{24} , Mg^{25} and Mg^{26} (in the form of MgO) have been bombarded with protons from the Berkeley Linear Accelerator, with the following results:

Mg^{24} yields an activity of approximately 23 seconds half life, presumably due to Na^{21} from the reaction $Mg^{24}(p,\alpha)Na^{21}$.

The Mg^{25} yields an activity of approximately 8 seconds half life, which we assign to the reaction $Mg^{25}(p,n)Al^{25}$.

The Mg^{26} yields an activity of approximately 6 seconds half life, assigned to Al^{26} according to a similar reaction.

It seems probable therefore that the 7 seconds half life normally given for Al^{26} is a mixture of these two activities.

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