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# Reaction production + AMS: An alternative method to study (d,alpha)26Al and (p,gamma)26Al reactions at low energies

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It is well known the importance in Astrophysics of the reactions regarding 26Al. This radioisotope is presented for instance, in the stars where there is H, C and Ne fusion at high temperatures; as well it can be found inside meteorites where it can be deposited or to be created in situ [1]. Considering the importance of the 26Al nuclei, in this work are presented the rst results regarding a campaign of measurements related with this radioisotope production, taking advantage of two dierent facilities: rstable, the radionucleus is produced by means of irradiation of silicon and magnesium targets with light particles, in order to produce (d,alpha) and (p, gamma) reactions at low
energies by using a CN-Van der Graaff accelerator. Once the enrichment with 26Al was made, the targets are analyzed in an AMS machine with the aim to obtain the 26Al/27Al ratios [2]. This values can later be used to approach the cross section of 26Al directly related with the reaction used for its production. With this alternative method, it is possible to measure very acceptable small cross sections of low energy reactions, due to the typical high resolution of AMS technique. In this work are presented our preliminary results for the 28Si(d,alpha)26Al reaction cross sections around 1.5 MeV [3] as well as the first approximations for the 25Mg(p,gamma)26Al reaction cross sections below 1 MeV.
[1] J. Kndlseder et. al. Astron. And Astrophys. 344 (1999) 68.
[2] A. Arazi, et. al., Phys. Rev. C 74, 025802 (2006).
[3] V. Araujo-Escalona et. al., J. of Phys. Conf. Ser, 730 (2016) 1-7.

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