

## Poster Session - Submission of Abstract

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### The $^{25}\text{Mg}(\alpha, n)^{28}\text{Si}$ reaction studied at LNL

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The observation of  $^{26}\text{Al}$  in the Milky Way is a clear hint of recent nucleosynthesis ( $\tau \sim 1$  My). The  $^{26}\text{Al}$  distribution is a robust parameter to control the predictions of stellar evolution models. A recent sensitivity study demonstrated that the  $^{25}\text{Mg}(\alpha, n)^{28}\text{Si}$  is the reaction with the strongest impact on  $^{26}\text{Al}$  during explosive neon and carbon burning. Its cross section was measured by several experiments reporting discrepancy more than a factor of 3. In order to improve the experimental knowledge of the  $^{25}\text{Mg}(\alpha, n)^{28}\text{Si}$  cross section, a new direct measurement has been performed at Laboratori Nazionali di Legnaro. Neutron spectroscopy is provided by using the time of flight technique and pulsed beam.  $\gamma$ -n discrimination is achieved applying the Pulse Shape Analysis technique. Preliminary results of this experiment will be presented for differential cross section in a range of angle from 17 up to 106 degrees.