Abstract Submitted
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**Reaction rate studies of 7Li(a,g)11B at nu-process energies**[1]
GWENAELLE GILARDY, JOACHIM GORRES, RICHARD DEBOER, KEVIN HOWARD, EDWARD LAMERE, KEVIN MACON, CHRISTOPHER SEYMOUR, MICHAEL SKULSKI, MICHAEL WIESCHER, MANOEL COUDER, University of Notre dame — At the end of its life, a massive star collapses into a neutron star leading to a supernovae explosion. The neutrino flux released during the collapse is so significant that the probability of a neutrino interacting with a nucleus can actually influence the nucleosynthesis [1]. The origins of light element, especially 11B, is not fully understood and the $\nu$-process has been proposed as a candidate for its production [2]. Neutrino triggered reaction lead to the production of 11B via the reaction 7Li(a,g)11B. The cross section of 7Li(a,g)11B is then critical to estimate the contribution of the nu-process to 11B abundance. This reaction was recently studied at Notre Dame in the range of energy relevant to the nu-process and the result of this experiment will be presented. [1] S.E. Woosley et *al*, Astro. Journal, **356**:272-301(1990)
[2] K. Nakamura et *al*, Astro. Journal Letters, **718**:L137-L140(2010)

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