

Abstract Submitted
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Lowest $l=0$ Proton-Resonance in ^{26}Si and Implications for Nucleosynthesis of ^{26}Al P.N. PEPLOWSKI, L.T. BABY, E. DIFFENDERFER, P. HOFLICH, N. KEELEY, A. ROJAS, A. VOLYA, I. WIEDENHOVER, Florida State University, FLORIDA STATE UNIVERSITY TEAM — The first successful experiment to determine the $^{25}\text{Al} (p,\gamma)^{26}\text{Si}$ reaction rate using a radioactive beam of ^{25}Al is presented here. The experiment was carried out using the new in-flight radioactive beam production facility, known as RESOLUT, at The Florida State University. The analogous single proton transfer reaction $d(^{25}\text{Al},^{26}\text{Si})n$ was measured. Details of the RESOLUT beamline and detection scheme for the experiment will be discussed. Results from this experiment, including implications for the rp-process and stellar nucleosynthesis of ^{26}Al will be presented.

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