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Measurement of the ^{25}Al(d,n)^{26}Si(p) reaction at RESOLUT: Spectroscopy of $l = 0$ and $l = 1$ resonances JESSICA BAKER, INGO WIEDENHOVER, ALEXANDER ROJAS, LAGY BABY, SEAN KUVIN, PATRICK PEPLOWSKI, DANIEL SANTIAGO-GONZALEZ, Florida State University, GEORGIOS PERDIKAKIS, National Superconducting Cyclotron Laboratory, Michigan State University, DENNIS GAY, University of North Florida — Studies of rp-process nucleosynthesis in stellar explosions show that establishing the lowest $l = 0$ and $l = 1$ resonances is the most important step to determine reaction rates in the astrophysical rp–process path. In an experiment performed at the RESOLUT radioactive beam facility of Florida State University, we have studied the $^{25}\mathrm{Al(d,n)}^{26}\mathrm{Si}$ reaction in inverse kinematics to establish the spectrum of the lowest $l = 0$ and $l = 1$ resonances. The spectrum is consistent with a previous experiment using the same reaction at RESOLUT [1] and results obtained from recent stable beam experiments [2].

[1] P.N. Peplowski et al. Phys.Rev C 79, 032801 (2009)
[2] K.A. Chipps et al. Phys.Rev C 28, 045803 (2010)

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