Abstract Submitted
for the HAW09 Meeting of
The American Physical Society

The ^{28}Si(p,t)^{26}Si Reaction and Implications for ^{25}Al(p,γ)^{26}Si[1] K.A. CHIPPS[2], Rutgers University, D.W. BARDAYAN, Oak Ridge National Laboratory, K.Y. CHAE, University of Tennessee Knoxville, R. KOZUB, Tennessee Tech. University, C. MATEI, Oak Ridge Associated Universities, B.H. MOAZEN, University of Tennessee Knoxville, C.D. NESARAJA, Oak Ridge National Laboratory, P.D. O'MALLEY, Rutgers University, S.D. PAIN, Oak Ridge National Laboratory, W.A. PETERS, Rutgers University, S.T. PITTMAN, K. SCHMITT, University of Tennessee Knoxville, M.S. SMITH, Oak Ridge National Laboratory — We have studied several resonances in ^{25}Al(p,γ)^{26}Si via the ^{28}Si(p,t)^{26}Si reaction at HRIBF. In addition to measuring angular distributions of the tritons, an additional silicon detector array was used to measure the coincident protons emitted from the decay of states in ^{26}Si above the proton threshold. We confirm experimentally that the 3^+ 5914 keV resonance, the first $\ell = 0$ state above the proton threshold, does in fact decay essentially 100% of the time via proton emission, resulting in a proton branching ratio consistent with one.

[1]This work is funded by the US DOE
[2]current address: University of York

Kelly Chipps
Rutgers University

Date submitted: 01 Jul 2009 Electronic form version 1.4