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(α,p) Measurements with ANASEN K.T. MACON, L. LINDHARDT, J. LAI, B.C. RASCO, M. MATOS, J. BLACKMON, Louisiana State University, E. KOSCHIY, L.T. BABY, J. BELARGE, A. KUCHERA, G.V. ROGACHEV, DANIEL SANTIAGO-GONZALEZ, I. WIEDENHÖVER, Florida State University
— Certain (α,p) reaction rates are important for understanding energy generation and light curves of X-Ray bursts. Only two (α,p) reactions, ^{14}O(α,p) and ^{18}Ne(α,p), have had direct experimental investigation. Some investigations have measured inverse (p,α) reactions which measure the ground state branch of the (α,p) rate. Other reactions have provided information on resonance parameters using stable beam transfer reactions. However large uncertainties remain on (α,p) reaction rates. ANASEN (The Array for Nuclear Astrophysics and Structure with Exotic Nuclei) is an extended gas target charged particle detector array. ANASEN has demonstrated the capability to directly measure the excitation functions of (α,p) reactions in inverse kinematics with a stable beam test, and we have performed our first experiment with radioactive beam of ^{18}Ne at FSU. In this talk the performance of ANASEN will be presented along with preliminary results.

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