

Abstract Submitted
for the DNP08 Meeting of
The American Physical Society

Analyzing power and yield measurements of the $^{13}\text{C}(\text{d},\text{n}_0)^{14}\text{N}$ Reaction between 280-460 keV¹ EVAN SAND, R. FRANCE, Georgia College and State University, S. STAVE, M.W. AHMED, S.S. HENSHAW, H.R. WELLER, Duke & TUNL, R.M. PRIOR, M.C. SPRAKER, North Georgia College and State University — One of the poorly understood reactions that may contribute to heavy element inhomogeneous nucleosynthesis is the $^{13}\text{C}(\text{d},\text{n}_0)^{14}\text{N}$ reaction. To understand the dynamics of this reaction, we have measured the yield and vector analyzing power of the n_0 group in the deuteron energy range from 280 keV to 460 keV. Neutrons were produced by a deuterium beam from the atomic beam polarized ion source, accelerated through the TUNL mini tandem onto a thick and enriched ^{13}C target. Eight organic liquid scintillator neutron detectors were placed at angles from 0° to 150° . Results for the angular distributions of the yield and analyzing power were extracted and will be shown.

¹This work was partially supported by the U.S. D.O.E. under grants DE-FG02-97ER41046, DE-FG02-97ER41033, AND DE-FG02-97ER41042.

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Date submitted: 30 Jul 2008

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