

Abstract Submitted
for the DNP07 Meeting of
The American Physical Society

Gamma-Ray Spectroscopy of $A \approx 100$ Nuclei¹ J.D. LEBLANC, D.A. MEYER, Rhodes College, A. HEINZ, H. AI, R.J. CASPERSON, WNSL, Yale University, J.L. HUGON, Rhodes College, B. HUBER, WNSL, Yale University, R. LUTTKE, WNSL, Yale University; TU Darmstadt, E.A. MCCUTCHAN, J. QIAN, WNSL, Yale University, B. SHORAKA, WNSL, Yale University; University of Surrey, J.K. SMITH, Rhodes College, J.R. TERRY, E. WILLIAMS, WNSL, Yale University — Structural evolution is often characterized as a function of nucleon number. When investigating a specific nuclide, structural evolution may be described as a function of angular momentum, referred to as the E-GOS (E-Gamma Over Spin) method. An experiment was performed using the ESTU tandem Van de Graff accelerator at the Wright Nuclear Structure Laboratory at Yale University. Several nuclei in the $A \approx 100$ region were populated via the fusion-evaporation reaction $^{92}\text{Zr}(^{12}\text{C}, 4n + \gamma)^{100}\text{Pd}$. Subsequent gamma ray emissions were detected using the detector array SPEEDY, which is comprised of eight clover-leafed HP Ge crystal detectors. Data were collected at four different beam energies: 66, 68, 70, and 75 MeV. The data will be interpreted utilizing the E-GOS method.

¹This work was supported by DOE Grant DE-FG-91ER-40609 and Rhodes CARES.

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Date submitted: 01 Aug 2007

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