Abstract Submitted
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**The Nuclear Structure of the High-Spin States of the $^{134}$Ba and $^{135}$Ba Nuclei. nd $^{135}$Ba Nuclei.**[1] W.T. CLUFF[2], M.A. RILEY[3], A. AGUILAR, I. CALDERIN, D. CAMPBELL, E. DIFFENDERFER, J. FRIDMANN, T. HINNERS, J. PAVAN, P. PIPIDIS, Florida State University, C. TEAL, M. WIEDEKING, NUCLEAR GROUP COLLABORATION — The high-spin states of the $^{134}$Ba and $^{135}$Ba nuclei have been studied using the $^{124}$Sn+$^{14}$C reaction at beam energies of 57 and 50 MeV respectively. The $^{14}$C ion beam, a distinguishing feature of the FSU(Florida State University) Superconducting Linear Accelerator Laboratory, when paired with the most neutron rich stable isotope of Sn currently gives an optimal means of observing these nuclei at high spin. The $\gamma$ rays from this reaction were detected by the FSU Compton Suppressed Hyperpure Ge Detector Array. Confirmed spin states of $14\hbar$ have been seen for $^{134}$Ba and spin states of $35/2\hbar$ have been seen for $^{135}$Ba. Their level schemes shall be presented and their analysis and interpretation will be discussed.

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