

Abstract Submitted  
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**First observation of  $^{109}\text{I}$  alpha decay** D. SIMPSON, C. MAZZOCCHI, R. GRZYWACZ, C.R. BINGHAM, A. KORGUL, University of Tennessee, C.J. GROSS, K.P. RYKACZEWSKI, Oak Ridge National Laboratory, J.C. BATCHELDER, S.N. LIDDICK, Oak Ridge Associated Universities, J.H. HAMILTON, J.K. HWANG, K. LI, Vanderbilt University, S. ILYUSHKIN, J.A. WINGER, Mississippi State University, W. KROLAS, Institute of Nuclear Physics, R.D. PAGE, University of Liverpool — Charged particle spectroscopy can provide insight into the nuclear structure of exotic nuclei. Far away from the valley of stability nuclei become difficult to produce and observe. Short lifetimes and low count rates make experiments very challenging. One way to do these experiments is by implanting a nucleus into a silicon detector and observing its alpha or proton decay. At short lifetimes, the implantation induced signal distorts the energy measurement of the decay pulse. An algorithm was designed to correct this effect, making possible the observation of  $^{109}\text{I}$  alpha decay. The method and preliminary results will be presented.

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