

Abstract Submitted
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Coupling the ORRUBA and Gammasphere Arrays S.D. PAIN, ORNL, A. RATKIEWICZ, S. BURCHER, Rutgers University, IAN MARSH, ORNL/UTK/University of Wisconsin, J.A. CIZEWSKI, S. HARDY, M.E. HOWARD, S. OTA, C. SHAND, Rutgers University, K.L. JONES, W.A. PETERS, University of Tennessee, D.W. BARDAYAN, M. MATOS, Oak Ridge National Lab, M.P. CARPENTER, D. SEWERYNIAK, S. ZHU, Argonne National Lab, C.J. LISTER, UMass Lowell, R.L. KOZUB, Tennessee Technological University, J.C. BLACKMON, Louisiana State University — The measurement of transfer reactions in inverse kinematics using heavy beams poses a number of experimental challenges. Even for nuclei in close proximity to double shell closures, the fragmentation of single-particle strength can result in relatively complex spectra with level spacings as low as of tens of keV. Coincident measurement of de-excitation gamma rays in coincidence with the charged reaction products can aid significantly in resolving the states populated, and provide constraints on numerous other properties, such as spin-parities, branching ratios and lifetimes of levels. The ORRUBA detector array, with extended angular coverage, is being coupled to Gammasphere in order to facilitate such measurements. The motivation, details and current status of the coupled arrays will be presented. *This work is supported in part by the U.S. Department of Energy and the National Science Foundation.

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