

Abstract Submitted  
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**Nuclear Resonance Fluorescence from  $^{238}\text{U}$** <sup>1</sup> S. HAMMOND, C.T. ANGELL, H.J. KARWOWSKI, University of North Carolina-Chapel Hill & TUNL, C.R. HOWELL, E. KWAN, G. RUSEV, A. TONCHEV, W. TORNOW, Duke University & TUNL, J.H. KELLEY, NCSU & TUNL — Nuclear resonance fluorescence provides unambiguous isotope identification by observing de-excitations of nuclear levels of  $\gamma$ -ray transitions characteristic of the isotope of interest as high-energy  $\gamma$  rays penetrate protective shielding, acting as an identifier of hidden nuclear materials. Using the mono-energetic  $\gamma$ -ray source at the HI $\gamma$ S facility to investigate the nucleus  $^{238}\text{U}$  through the  $(\gamma, \gamma')$  reaction, we measured the widths of low-spin states observed at incident  $\gamma$ -ray beam energies in the range of 2.94 to 4.40 MeV.

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