

Abstract Submitted  
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**Fission Fragment Studies from Near-Barrier Photo-Fission of Uranium**<sup>1</sup> M.J. TUFFLEY, SJSU, M.S. JOHNSON, SJSU, LLNL, J.M. HALL, D.P. MCNABB, LLNL, M.W. AHMED, S. STAVE, H.R. WELLER, J.M. MUELLER, Duke University, H. KARWOWSKI, J. TOMPKINS, UNC Chapel Hill — We have performed near-barrier photo-fission measurements on uranium at the High Intensity Gamma-ray Source (HIGS) at TUNL. Offline gamma-ray measurements of the activated targets were performed to identify decaying fission fragments and determine their concentrations. Fission fragment analysis can be utilized to help validate the overall fission cross-section determination. The distribution of the fission fragments is expected to be a function of the incident photon energy, especially near the fission threshold. The offline gamma rays were measured with an HPGe detector at the HIGS facility. We measured the gamma ray spectra of the activated targets as a function of time. These spectra were then analyzed to determine the lifetimes of the fragments. We will present the results of our analysis and discuss future prospects.

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