Abstract Submitted
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Neutron Photoproduction from ^{181}Ta with Linearly Polarized γ-rays between 11 and 15.5 MeV[1] W. HENDERSON, J. HAUVER, C.S. WHISNANT, James Madison University, M. AHMED, J. MUELLER, L. MYERS, S. STAVE, H.R. WELLER, TUNL, Duke University — Data have been collected at the High Intensity γ-ray Source (HIγS) to investigate neutron emission from a ^{181}Ta target with linearly polarized gamma rays at E_γ= 11, 12, 13, 14, and 15.5 MeV. Liquid scintillator detectors were placed at scattering angles of 55°, 90° and 125° above, below and to the left and right of the target. Four additional detectors were placed at angles of 72° and 107° along the top and right. The E_γ dependence of the ratios of neutron yields, $\frac{I_{para}}{I_{perp}}$ are examined. The ratio at 90° should depend only on the $P_2\left(cos\left(\theta\right)\right)$ coefficient in the angular distribution. A comparison of these results will be discussed.

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