Abstract Submitted
for the APR12 Meeting of
The American Physical Society

Three-body photodisintegration of 3He with double polarizations at incident photon energies E 12.8 MeV and 14.7 MeV[1] GEORGIOS LASKARIS, QIANG YE, HAIYAN GAO, BAWITLUNG LALREMRUATA, MOHAMMAD AHMED, YING WU, JONATHAN MUELLER, LUKE MYERS, JEROMY TOMPKINS, QIUJIAN YE, MIN HUANG, CHAO PENG, YANG ZHANG, WANGZHI ZHENG, SETH HENSHAW, BRENT PERDUE, XIN QIAN, SEAN STAVE, Triangle Universities Nuclear Laboratory, HENRY WELLER, Physics Department, College of William and Mary, DIPANGKAR DUTTA, Department of Physics and Astronomy, Mississippi State University, TODD AVERETT, Physics Department, College of William and Mary — We report on the study of three-body photo-disintegration of polarized ^{3}He using a circularly polarized γ beam at incident photon energies 12.8 MeV and 14.7 MeV. The experiment was carried out at the High Intensity γ Source (HIγS) facility located at Triangle Universities Nuclear Laboratory. A high-pressure ^{3}He cell was employed as target and it was polarized using the spin exchange optical pumping (SEOP) technique of hybrid alkali. The neutrons from the three-body photo-disintegration were detected using 16 liquid scintillator fast neutron detectors positioned in the reaction plane at 8 angles varying from 30° to 165°. Preliminary results on asymmetry and spin-dependent differential cross sections for both energies will be presented and compared with the three-body calculations using both CD Bonn and AV18 potentials.

[1]This work is supported in part by the U.S. Department of Energy under contract number DE-FG02-03ER41231.

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Date submitted: 20 Dec 2011 Electronic form version 1.4