

Abstract Submitted  
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**Measurement of inclusive  $\Lambda(1520)$  photoproduction on deuteron**

KENNETH HICKS, TSUTOMU MIBE, Ohio University, STEPAN STEPANYAN, Jefferson Laboratory, CLAS COLLABORATION — The possible observation of the  $\gamma n \rightarrow K^- \Theta^+$  reaction in LEPS and non-observation of the reaction  $\gamma p \rightarrow \bar{K}^0 \Theta^+$  in CLAS would require a large isospin asymmetry in the cross section. In 2005, Nam, Hosaka and Kim proposed a large isospin asymmetry in the cross section due to the possible absence of a contact term (Kroll-Ruderman term) in production from the neutron of a  $\Theta^+$  with spin  $3/2$ . The  $\Lambda(1520)$  is a well-established excited hyperon with spin and parity  $J^P = 3/2^-$ . If a large isospin asymmetry exists in the  $\Theta^+$  photoproduction ( $\sigma_n(\Theta^+) \gg \sigma_p(\Theta^+)$ ), then a similar but opposite cross section asymmetry is predicted in the photoproduction of  $\Lambda(1520)$  from the proton and neutron ( $\sigma_n(\Lambda^*) \ll \sigma_p(\Lambda^*)$ ). This talk will report the measurement of differential cross sections and decay angular distributions for the inclusive reaction  $\gamma d \rightarrow \Lambda(1520)X$  at Jefferson Laboratory using the CLAS detector. Data for  $\Lambda(1520)$  photoproduction from both proton and neutron targets will be discussed.

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