

Abstract Submitted
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Search for the Θ^+ Pentaquark with Photoproduction off Deuterium at CLAS¹ KEN HICKS, Ohio University, CLAS COLLABORATION — The g10 experiment at Jefferson Lab is a high-statistics measurement of photoproduction from a deuterium target with photon energies between 1.0-3.0 GeV. Two independent data sets were obtained, one at 80% of the maximum magnetic field of the CLAS detector and one at 60% of the maximum, each with a luminosity of order 30 pb^{-1} . For the final state pK^-K^+n the upper limit for the elementary production of the Θ^+ from the neutron is estimated using a model for final state interactions (FSI). This model and the estimated upper limit of the elementary cross section will be presented. In addition, production into the $\Lambda\Theta^+$ final has been investigated, and cross section upper limits will be presented. The high statistics of the g10 experiment are placing significant constraints on the question of whether narrow pentaquark resonances can exist.

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