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The Photoproduction of $K^+\Sigma^{*-}$(1385) HAIYUN LU, RALF GOTHE, LEWIS GRAHAM, ZHIWEN ZHAO, KIJUN PARK, University of South Carolina, CLAS COLLABORATION — The $\Sigma^*(1385)$ resonance is a member of the baryon decuplet with spin 3/2. The cross section measurement for photoproduction helps to constrain the SU(3) model, as well as to test various other baryon models. There is very little photoproduction data on the neutron. So far, there exists only one published paper (in January 2009 by LEPS collaboration) which covers beam energy from 1.5 GeV to 2.4 GeV and limited angle. We analyze EG3 data from Hall B using CEBAF Large Acceptance Spectrometer(CLAS) in JLab from the threshold energy of the deuteron production to around 5.5 GeV. After careful study, we produce a very clean exclusive data sample of quasi-free photoproduction on the neutron. We present preliminary results of total cross section and differential cross section of $K^+\Sigma^{*-}$, as well as the decay angle distribution.

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