

Total cross section of $\Xi(1820)^*$ – in $\gamma p \rightarrow K^+ K^+ \Xi^{*-}$ – at GlueX.

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The SU(3) flavor symmetry in the quark model for baryons allows as many Ξ resonances as N^* and Δ^* combined. Only a handful of these states have been identified experimentally and among these states, only six states have three and four-star status according to PDG. The GlueX experiment, in Jefferson Lab's Hall D using a photon beam of energies up to 12 GeV allows us to study the Cascade baryon spectrum. In this presentation, we present the preliminary cross section results for the photoproduction of $\Xi(1820)^{*-}$ baryon in the reaction $\gamma p \rightarrow K^+ Y^{0*} \rightarrow K^+ K^+ \Xi^{*-}$ with $\Xi^{*-} \rightarrow K^- \Lambda$. We are presenting the results for the Phase -I GlueX data for the incident photon beam energy range 6.0 to 11.4 GeV. These are the first total cross section results for $\Xi(1820)^{*-}$ in photoproduction.

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