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Exclusive single pion electroproduction off the proton in the invariant mass range up to 2 GeV and at $Q^2 < 5 \text{ GeV}^2$ with CLAS. KIJUN PARK, Old Dominion University, VOLKER BURKERT, Jefferson Lab, CLAS COLLABORATION — Exclusive meson electroproduction off protons is a powerful tool to probe the effective degrees of freedom in excited nucleon states at the varying distance scale where the transition from the contributions of both quark core and meson-baryon cloud to the quark core dominance. During the past decade, the CLAS collaboration has executed a broad experimental program to study the excited states of the proton using polarized electron beam and (un)polarized proton targets. The measurements covered a broad kinematic range in the invariant mass W and photon virtuality Q^2 with nearly full coverage in solid angles in the hadronic CMS system. As results, several low-lying nucleon resonance states have been explored, such as $\Delta(1230)3/2+$, $N(1440)1/2+$, $N(1520)3/2-$, and $N(1535)1/2-$ in particular for $W < 1.6 \text{ GeV}$. In this talk, we present preliminary cross-sections and helicity amplitudes of the reaction $g^*p \rightarrow n\pi^+$ at higher W (1.6 to 2.0 GeV). Some of the excited states with isospin 1/2 and with masses near 1.7 GeV can be accessed in single $n\pi^+$ production as there are no isospin 3/2 states present in this mass range with the same spin-parity assignments. These are the $N(1675)5/2-$, $N(1680)5/2+$, and $N(1710)1/2+$ states. We will briefly discuss preliminary results for these states.

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