

Abstract Submitted
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Search for $\Phi(1862)$ Pentaquark States with CLAS HOVANES EGIYAN, University of New Hampshire, CLAS COLLABORATION — Following the first observations of the possible $S = +1$ pentaquark state $\Theta^+(1540)$, there have been many experiments in various laboratories to confirm these results and to search for states which could be associated with other members of the pentaquark antidecuplet. The NA49 collaboration reported the observation of narrow $S = -2$ states with masses about 1860 MeV showing in the $\Xi\pi$ invariant mass spectra. These states were identified as isospin 3/2 members of the pentaquark antidecuplet, and were named $\Phi(1862)$. However, other experiments have failed to reproduce these results. A new experiment has recently been performed at Jefferson Lab using the CLAS detector to search for the $\Phi(1862)$ state in photoproduction on a deuterium target. A large amount of data has been collected and analyzed, and approximately two thousand $\pi^-\Xi^-$ events were identified. The preliminary invariant mass spectrum of the $\pi^-\Xi^-$ system, where the $\Phi^{--}(1862)$ pentaquark state is expected, will be presented and discussed.

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