

Mahmoud Kamel on behalf of the GlueX Collaboration

Abstract

The GlueX experiment studies the light meson spectrum and searches for hybrid and exotic mesons. As part of its program, photoproduction cross sections of η mesons have been measured in the $\gamma + p \rightarrow \eta + p$ reaction in a new, previously unexplored kinematic regime at beam energies up to 11 GeV, and production polar angles down to 8° . The new results will be presented for both t, and u channels. η mesons have been identified through their $\gamma\gamma$ decay channel which has a branching ratio of 39.41%. Besides the high energy data, an additional set of low energy (3 to 5.5 GeV) photoproduction data has been collected that are overlapping with previously published data. The new cross section results at lower beam energies will be compared to previously published data and all will be compared with recent model calculations.

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