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Report of Abstracts

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Light meson photoproduction at SPring-8 LEPS2/ BGOegg experiments

Content

The SPring-8 LEPS2 beamline provides a photon beam in the tagged energy range of 1.3–2.4 GeV. This beam is produced by the backward Compton scattering of ultraviolet laser light, resulting in the advantage of high linear polarization. At the LEPS2 beamline, the BGOegg experiments have collected the hadron photoproduction data using a liquid hydrogen target, surrounded by a large acceptance electromagnetic calorimeter and charged particle detectors. The electromagnetic calorimeter consists of 1,320 BGO crystals, assembled in the “egg” shape, and covers the polar angle range of 24–144 degrees. The reactions of $p \rightarrow \rho^0 p$, $p \rightarrow p \rho$, and $p \rightarrow p \rho$ were individually analyzed in the decay modes into 2^- and 0^- . We have measured the differential cross sections and photon beam asymmetries of these photoproduction processes to study baryon resonances. Preliminary results will be shown, including the high energy region where the photon beam asymmetries had not been measured.

Summary

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Comments:

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