Hyperon phptoproduction by lineatly polarized photons at SPring-8/LEPS

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Differential cross sections and photon beam asymmetries for the $\vec{\gamma}p \to K^+\Lambda$ and $\vec{\gamma}p \to K^+\Sigma^0$ reactions have been measured by linearly polarized photons from 1.5 GeV to 2.4 GeV and in the angular range from $\Theta_{c.m.} = 0^\circ$ to 60° of the K^+ scattering angle in the center of mass system at the SPring-8/LEPS facility. The photon beam asymmetries for both the reactions have been found to be positive and to increase with the photon energy. The differential cross sections were measured at the very forword angles where no other facility cannot access. The results at forward angles suggest a strong K-exchange contribution in the t-channel for the $K^+\Lambda$ reaction, but not for the $K^+\Sigma^0$ reaction.