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Photoproduction of Neutral Kaons and Λ Hyperons on the deuteron in the energy range of 0.8 - 1.1 GeV BRIAN BECKFORD, Tohoku University, NKS2 COLLABORATION — Investigation into the physical process of strangeness production by the electromagnetic interaction is drawing strong interest and as it is expected to deepen the understanding of hadron structures and also provide basic data on hypernuclear electroproduction. It is now acknowledged that strangeness production experiments conducted at lower energy are excellent tools for furnishing insight into the elementary production process. An experiment has been designed and performed by the NKS2 collaboration at the Research Center for Electron Photon Science (**ELPH**), Tohoku University, utilizing the freshly upgraded Neutral Kaon Spectrometer 2 (**NKS2**). The motivation of the experiment lies on differentiating various channels contributing to strangeness photo production in the threshold region by specifically measuring the $d(\gamma, K^0)\Lambda p$ reaction. A 1.2 GeV electron beam is used to generate a tagged photon beam, which is bombarded upon a liquid deuterium target. Singles and coincidence measurements of the photoproduced $K_s^0 + \Lambda$ was detected using the **NKS2** by the $K_s^0 \rightarrow \pi^+ + \pi^-$ and $\Lambda \rightarrow p + \pi^-$ decay channels. Recent data has been taken in the fall of 2010. The motivation for the experiment, experimental technique and preliminary results will be presented.

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