## Abstract Submitted for the HAW09 Meeting of The American Physical Society

Measurement of  $\gamma d \to K^0 \Lambda p$  reaction with NKS2 at SENDAI KENTA FUTATSUKAWA, Tohoku Univ., NKS2 COLLABORATION — Kaon photoproduction plays an important role in the investigation of meson-baryon interactions, the structures of hadrons, and in search for missing resonances. Among kaon photoproduction processes, the  $\gamma n \to K^0 \Lambda$  reaction is a unique process and is vital to understanding kaon photoproduction. In order to study this reaction, we have constructed the new spectrometer (NKS2) optimized to cover the forward region, thus making it possible to measure much larger kinematical region of  $K^0$ . We have performed the experiment of  $K^0$  photoproduction near the threshold region  $(E_{\gamma}{=}0.8{-}1.1~{\rm GeV})$  with a liquid deuterium target at the Laboratory of Nuclear Science, Tohoku University(LNS-Tohoku). The data analysis is in progress. The preliminary results of the cross section will be presented in this talk.

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