

Abstract Submitted
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Status of the experiment of Lambda-n interaction measurement via FSI effect in gamma+d reaction at ELPH, Tohoku Univ.¹ MASASHI KANETA, TAKERU AKIYAMA, Tohoku Univ., HIROYUKI FUJIOKA, Tokyo Tech, TOMOMASA FUJIWARA, Tohoku Univ., KENJI FUKADA, Tokyo Tech, KOUSUKE ITABASHI, MASAYA MIZUNO, SHO NAGAO, SATOSHI N. NAKAMURA, YUKI R. NAKAMURA, KAZUKI OKUYAMA, YUICHI TOYAMA, KEITA UEHARA, HIROO UMETSU, Tohoku Univ., NKS2 COLLABORATION — Hypernuclear spectroscopy is one of the most powerful tools to extract Hyperon-Nucleon interaction. On the other hand, recent studies of ${}^4_{\Lambda}\text{H}$ and ${}^4_{\Lambda}\text{He}$ show that there is a larger difference of binding energies between the two light hypernuclei than theoretical calculation. The problem is called charge symmetry breaking in Λ - N interaction. It means that there is difference between Λ - p and Λ - n interactions or the other effect. There are data about Λ - p scattering, but no data about Λ - n scattering due to difficulty of the experiment. One of the keys to solve the problem is to measure Λ - n with enough statistics. We proposed the experiment to obtain Λ - n interaction via final-state-interaction effect in $\gamma + d \rightarrow K^+ + \Lambda + n$ reaction at ELPH, Tohoku University. We will present the status of the experiment including the detector development in this talk.

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