

Abstract Submitted
for the HAW09 Meeting of
The American Physical Society

Study of the $1\text{H}(\text{d}, \text{pp})$ and $2\text{H}(\text{p}, \text{pp})$ breakup reaction in the off-plane star configuration at 13 MeV YUKIE MAEDA, University of Miyazaki, HIROKI SHIMODA, KENSHI SAGARA, YUICHIRO EGUCHI, Kyushu University, NORIYUKI FUJITA, University of Miyazaki, KICHIJI HATANAKA, DAISUKE ISHIKAWA, RCNP, SHO KUROITA, Kyushu University, ATSUSHI NONAKA, University of Miyazaki, HIROYUKI OKAMURA, RCNP, TAKEHIRO SUETA, Kyushu University, ATSUSHI TAMII, RCNP, KEISUKE YASHIMA, Kyushu University — Recently the data of the differential cross sections for the $1\text{H}(\text{d}, \text{pp})\text{n}$ breakup reactions in the off-plane star configurations at $E_{\text{d}} = 19$ MeV are reported. This study covers the kinematical configurations in which all three nucleons in the final state scattered with equal magnitudes of momenta in the c.m. system. The comparison of the data with the Faddeev calculations showed large discrepancies, which we call “off-plane star anomaly.” To clarify the cause of this anomaly, we carried out the measurement of the $1\text{H}(\text{d}, \text{pp})\text{n}$ reactions at $E_{\text{d}} = 26$ MeV at RCNP and that of the $2\text{H}(\text{p}, \text{pp})\text{n}$ reactions at $E_{\text{p}} = 13$ MeV at KUTL. By carrying out these experiments, we obtained the data for the almost full angular range of the alpha. We are going to show the preliminary results of the differential cross sections along the S-curve and compare these results to the Faddeev calculations. Our data is well reproduced by the calculations including the Coulomb, which is different from the results of Koln at 19 MeV.

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Date submitted: 30 Jun 2009

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