

Abstract Submitted
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Study of 3NF effects via few-nucleon scattering Y. WADA, K. SEKIGUCHI, Y. SHIOKAWA, U. GEBAUER, J. MIYAZAKI, T. TAGUCHI, Department of Physics, Tohoku University, M. DOZONO, H. SAKAI, N. SAKAMOTO, M. SASANO, Y. SHIMIZU, H. SUZUKI, T. UESAKA, RIKEN, Nishina Center, M. ITOH, T. WAKUI, Cycrotron and Radioisotope Center, Tohoku University, S. KAWASE, Y. KUBOTA, C.S. LEE, T. L. TANG, K. YAKO, Center for Nuclear Study, University of Tokyo, Y. MAEDA, Faculty of Engineering, University of Miyazaki, K. MIKI, H. OKAMURA, Research Center for Nuclear Physics, Osaka University, S. SAKAGUCHI, T. WAKASA, Department of Physics, Kyushu University — Experimentally, one must utilize systems with more than two nucleons ($A \geq 3$) to investigate properties of 3NFs. We have performed the measurement of all deuteron analyzing powers for dp elastic scattering at 250 – 300 MeV/nucleon. Serious discrepancies are found between the data and the Faddeev calculations at very backward angles ($\theta_{\text{c.m.}} \geq 120^\circ$), which are not explained even taking into account 3NFs. These results indicate some significant dynamical components, e.g. short-range 3NFs, are missing in the calculations. In order to extend the study of 3NF to many-nucleon system we are planning the measurements of $p+^3\text{He}$ scattering.

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