

Abstract Submitted
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Beta decay of ^{24}Si and mirror asymmetry of Gamow-Teller transition strength YUICHI ICHIKAWA, TOSHIYUKI KUBO, NORI AOI, NAOKI FUKUDA, TOHRU MOTOBAYASHI, KAZUNARI YAMADA, HIROYOSHI SAKURAI, Nishina Center, RIKEN, TAKEO ONISHI, DAISUKE SUZUKI, HIRONORI IWASAKI, TARO NAKAO, HIROSHI SUZUKI, MASARU SUZUKI, University of Tokyo, VAISHALI NAIK, ALOK CHAKRABARTI, Variable Energy Cyclotron Centre, B. ALEX BROWN, Michigan State University, SHIGERU KUBONO, HIDETOSHI YAMAGUCHI, CNS, University of Tokyo, TAKUMI NAKABAYASHI, TAKASHI NAKAMURA, TOSHIFUMI OKUMURA, Tokyo Institute of Technology, H. JIN ONG, RCNP, Osaka University, TAKASHI TERANISHI, Kyushu University — We performed the β decay spectroscopy on ^{24}Si in order to study the behavior of a weakly-bound s -wave proton. The behavior of a weakly-bound proton in a proton-rich nucleus is one of the interesting topics to explore exotic nuclear structures such as proton halo. Thomas-Ehrman shift of the proton $s_{1/2}$ orbital induces a configuration change in the wave function. The change can be investigated in terms of the mirror asymmetry for Gamow-Teller transition strengths $B(\text{GT})$ for a proton-rich nucleus of ^{24}Si . The experiment was carried out at the RIPS facility. In this presentation, we will report the experimental results. Discussion on the comparison with theoretical calculations which takes into account the Coulomb force and the Thomas-Ehrman shift is also given.

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