Abstract Submitted for the HAW14 Meeting of The American Physical Society

Ground-state nuclear-moment measurement of neutron-rich sulfur isotopes YUICHI OHTOMO, RNC, Tokyo Tech, YUICHI ICHIKAWA, RNC, HAZUKI SHIRAI, Tokyo Tech, HIDEKI UENO, RNC, YOUKO ISHIBASHI, RNC, Tsukuba Univ., TAKAHIRO SUZUKI, Tokyo Tech, TAKESHI FURUKAWA, Tokyo Metropolitan Univ., AKIHIRO YOSHIMI, Okayam Univ., YASUSHI ABE, RNC, Tsukuba Univ., KOICHIRO ASAHI, Tokyo Tech, J.M. DAUGASU, CEA, TO-MOMI FUJITA, Osaka Univ., MIKI HAYASAKA, Tokyo Gakugei Univ., KEI IMA-MURA, RNC, Meiji Univ., SHOTA KISHI, Tokyo Gakugei Univ., SHUICHIRO KO-JIMA, Tokyo Tech, DAISUKE NAGAE, Tokyo Metropolitan Univ., AIKO NAKAO, RNC, TSUBASA SAGAYAMA, Tokyo Gakugei Univ., YU SAKAMOTO, TO-MOYA SATO, Tokyo Tech — Recently the erosion of N = 28 shell gap has been suggested from several spectroscopic experimental data on neutron-rich nuclei. In particular, ⁴³S isotope is of much interest since shape coexistence is expected to occur which provides key information to understand the evolution of shell gaps far from the stability. The isomeric state of ${}^{43}S$ at 320 keV is suggested to have a shape close to sphericity with spin-parity of 7/2, but both the spin-parity and deformed parameter of the ground-state have not been determined directly. In order to investigate mechanisms leading to such an anomalous nuclear structure, we aim at measuring the ground-state nuclear-moment for 41,43 S. As the first step, the measurement of μ moment of ⁴¹S was performed using the technique of β -NMR method at the RIPS facility at RIKEN. In the presentation, the result of this work will be reported.

> Yuichi Ohtomo RNC, Tokyo Tech

Date submitted: 29 Jun 2014

Electronic form version 1.4