Abstract Submitted for the HAW14 Meeting of The American Physical Society

Neutron Lifetime Measurement Initiated at J-PARC/MLF/BL05 GENKI TANAKA, TAMAKI YOSHIOKA, HIDETOSHI OTONO, NAOYUKI SUMI, Kyushu University, SATORU YAMASHITA, RYO KATAYAMA, TAKAHITO YAMADA, NAO HIGASHI, HARUMICHI YOKOYAMA, HI-ROCHIKA SUMINO, The University of Tokyo, HIROHIKO SHIMIZU, MASAAKI KITAGUCHI, KATSUYA HIROTA, RISA SAKAKIBARA, TOMOAKI SUGINO, Nagoya University, YOSHIHISA IWASHITA, RYUNOSUKE KITAHARA, Kyoto University, HIDEYUKI OIDE, CERN, TATSUSHI SHIMA, Osaka University, TAKASHI INO, KENJI MISHIMA, KAORU TAKETANI, KEK, YOSHICHIKA SEKI, RIKEN, NOP COLLABORATION — The neutron lifetime τ_n is one of the important parameters for the Big Bang Nucleosynthesis (BBN) which predicts an abundance of the light elements in the early universe. However, the He/(H+He) ratio recently measured by Izotov et al. has been deviated from that of the BBN prediction. Thus a precise τ_n measurement is desired. Historically, there are two methods for τ_n measurement, and there exists 3.8 σ deviation between their results. We are therefore conducting the τ_n measurement at the J-PARC/MLF/BL05 by using a third method. In this experiment we count the number of decay electrons by using Time Projection Chamber (TPC). We expect 1% accuracy with the collected data in JFY 2014. In this presentation, we will report some analysis results and future plan.

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Date submitted: 01 Jul 2014 Electronic form version 1.4