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Development of the electron spectrometer for the SCRIT experiment A. ENOKIZONO, Rikkyo University, M. HARA, RIKEN, Y. HARAGUCHI, Nagaoka University of Technology, T. HORI, S. ICHIKAWA, RIKEN, K. KURITA, S. MATSUO, Rikkyo University, T. OHNISHI, RIKEN, T. SUDA, T. TAMAE, Tohoku University, M. TOGASAKI, Rikkyo University, K. TSUKADA, T. TSURU, Tohoku University, M. WAKASUGI, RIKEN, S. WANG, Shandong University, S. YONEYAMA, Tohoku University, SCRIT TEAM — The charge density distribution of protons in an atomic nucleus can be precisely measured by electron elastic scattering and provides the detailed information of the nuclear structure. Although the detailed structure of stable nuclei have been measured by former experiments, those have yet to be observed for unstable nuclei due to the difficulty of making a solid target to obtain an enough luminosity for electron scattering. SCRIT (Self-Confining Radioactive isotope Ion Target) device has been developed at RIKEN to make the electron-unstable nuclei scattering experiment possible. With the electron storage ring (E_{beam} = 150MeV∼300MeV), test experiments have been performed for stable Cs and Xn in 2011-2012 and achieved a luminosity above 10^{26} cm^{-2} s^{-1}. Now the SCRIT facility is being upgraded aiming at the world first experiment for electron-unstable nuclei scattering. One of the key components in the upgrade is WiSES (Window-frame Spectrometer for Electron Scattering) which consists of a dipole magnet and front/rear drift chambers, covering a solid angle of ∼100 mSr with a momentum resolution of $\Delta p/p \sim 10^{-3}$ for scattered electrons. In this talk, we will report the latest status of the construction and test of WiSES.

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