

## Development of a scintillation counter with MPPC readout for the internal tagging system

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We have been developing an array of electron counters for the photon tagging spectrometer at the Research Center for Electron Photon Science, Tohoku University (ELPH). Since it is installed in the limited space of the bending magnet of the accelerator, compact size and insensitivity to the magnetic field are required.

We chose the multi-pixel photon counter (MPPC) HAMAMATSU S10362-33-100C as photon sensors for the scintillation counters. The counter is a plastic scintillator in a shape of a small rectangular prism with 3 mm-square cross section, coupled to the MPPC. We fabricated a prototype of the electron detector and performed a beam test at the NewSUBARU BL1. In this presentation, we report the result of the test of the prototype detector and the current status of the development of the photon tagging system.

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