Contribution ID: **72** Type: **Contributed Talk**

Gamma-ray imaging with a large micro-TPC and a scintillation camera

Thursday 22 February 2007 18:00 (20 minutes)

Following the successful astronomical observation by COMPTEL onboard GRO, a Compton telescope with higher performance is required. With COMPTEL a direction of a recoil electron was not measured, so an origin of the incident photon could only be reconstructed to a cone. Measuring the direction of recoil electron reduces the Compton cone to a segment of the cone, and realizes the strong background rejection. To measure the direction of the recoil electron, we have developed a micro-time pro jection chamber (micro-TPC) based on a micro-pixel chamber (μ-PIC). The scattered gamma-ray is measured using 30 cm ×30 cm NaI(Tl) scintillation camera. We developed a larger size micro-TPC (23 cm ×28 cm×15 cm) than previous prototype (10 cm ×10 cm×10 cm). In this presentation, we are reporting on the fundamental performances of the MeV gamma-ray camera.

Author: HATTORI, Kaori (Kyoto University)

Presenter: HATTORI, Kaori (Kyoto University)

Session Classification: Session 8