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**Multitracer imaging by strip germanium telescope** SHINJI MOTOMURA, SHUICHI ENOMOTO, HIROMITSU HABA, YASUYUKI GONO, YASUSHIGE YANO, Accelerator Research Program, RIKEN, Saitama 351-0198, Japan — In multitracer method, a tracer reagent that contains multiple nuclide (multitracer) is injected into samples such as plants or small animals. In order to examine the possibility of nondestructive imaging of the multitracer, we have fabricated a Compton camera including two double-sided strip germanium detectors. For image reconstruction, we are currently trying a linear model between the real image and an intermediate image referred to as a simple back-projection (SBP) image. When the number of the detected events is sufficiently large, the SBP image is regarded as being constructed by convoluting a blur and the real image. If we assume that the blur is invariant anywhere in the real image space, the real image can be reconstructed analytically. However, the blur varies depending on the position in the real image space. Therefore, the analytical method is relevant only in a restricted region. Thus we have implemented an iterative method in which the variation in the blur can be incorporated. In this talk the imaging performance of the current model of the Compton camera will be presented.

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