Preflight perfomance of stacked silicon strip detectors for MeV electron on board the Geospace exploration satellite ``ERG''

*Takefumi Mitani¹, Satoshi Kasahara¹, Takeshi Takashima¹, Masafumi Hirahara², Wataru Miyake³, Nobuyuki Hasebe⁴

1.Japan Aerospace Exploration Agency, Institute of Space and Astronautical Science, 2.Nagoya University, 3.Tokai University, 4.Waseda University

The Energization and Radiation in Geospace (ERG) project will explore how relativistic electrons in the radiation belts are generated during space storms. 'High energy particle (electron)'' instrument (HEP-e) on board ERG satellite will observe 70 keV -2 MeV electron, which cover energy range of electrons to be accelerated and accelerated electrons, and play an important role to understand electron acceleration. HEP-e provide three dimensional distribution of electron every spacecraft spin period. The sensor of HEP-e is a pin-hole type camera which consist of mechanical collimator, silicon semiconductor detectors and readout ASICs. In this presentation we introduce HEP-e and report the results of performace tests of the flight model.

Keywords: ERG, silicon semiconductor