Charged particle measurements in the radiation belts by ERG

Kazushi Asamura¹, Nana Higashio³, Masafumi Hirahara⁴, *Satoshi Kasahara², Yoichi Kazama⁷, haruhisa matsumoto³, Takefumi Mitani¹, Wataru Miyake⁵, Yushi Suto², Takeshi Takashima¹, Bo-Jhou Wang⁷, Shiang-Yu Wang⁷, Kazuhiro Yamamoto⁶, Shoichiro Yokota¹

1. ISAS, 2. The university of Tokyo, 3. JAXA, 4. Nagoya University, 5. Tokai University, 6. Kyoto University, 7. ASIAA

Radiation belts show mysterious and dynamic variability during geospace storms. The ERG spacecraft aims to observe the cross-energy coupling plasma physics behind the decay and enhancement of the radiation belts. In order to cover the broad energy range from 10 eV up to 20 MeV, ERG is equipped with 6 particle instruments (XEP, HEP, MEP-e, MEP-i, LEP-e, and LEP-i). Here we review the specifications of these sensors.