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PEM30-P13 Room:Convention Hall Time:May 24 10:45-12:15

Evaluation of high-energy electron Detector for Probing the Inner Magnetosphere in High-counting Conditions

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There are regions where has particles over a broad energy range, from a few electron volts to more than 10MeV in the earth's magnetosphere. Also in radiation belt of inner magnetosphere, high energy electron were observed increased at recovery phase of magneticstorm. Magnetosphere is considered as infrastructure is use now more. And to understand the variation is important for social and science. There is project that integrated observation by ERG satellite. This research is Capability Evaluation of high energy detector (HEP-e) that is used into ERG satellite. At electron flux increase to , counting is occur saturation by dead time of IC chip for read of HEP-e. Reduce sensitive area of detector, and cover high counting by incident particle decrease.

This research used Cs137 and few radiation source that emit lower energy. As Result detector occurred counting loss of Cs137 emited electron when increased incident particle. But counting loss was decreased by reduce sensitive area. Also spectrum occur be shift high energy side in high counting condition. This weigh continue experiment with result simulation of Geant4 that is simulation soft.

Keywords: Inner Magnetiosphere, Electron Detector, Magnetic storm