

The status of the SEDA-AP/Heavy Ion Telescope

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Space radiation such as solar energetic particles (SEP), galactic cosmic rays (GCR) and trapped particles cause to our space activities. Heavy ions, in particular, have high linear energy transfer (LET), which exacerbates the risks of radiation exposure for astronauts and errors of electric circuits for satellites. The Japan Aerospace Exploration Agency (JAXA) has operated the Space Environment Data Acquisition Equipment-Attached Payload (SEDA-AP), installed at the International Space Station (ISS) Japanese Experiment Module (Kibo) - Exposed Facility, since 2009. On July 10 2015, JEM-EF was configured with the relocation of the SEDA-AP from no. 9 to no. 11. The Heavy-Ion Telescope (HIT) is the one of the SEDA-AP instruments, which comprises two position-sensitive silicon detectors and 16 silicon detectors. Based on the dExTE particle-identification method, HIT measures fluxes and energies of energetic ions from Li to Fe and. The results of HIT are consistent with the general GCR model and other experiment inside the ISS in terms of abundances of elements and LET distributions. In addition, HIT has observed heavy ions from a X5.4 solar flare. We will report the new results of analysis for data from July 2015, and the changes of the temperature environment and the count rates in order to evaluate the effects of relocation.

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