THE CALET MISSON FOR THE INTERNATIONAL SPACE STATION

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The CALorimetric Electron Telescope (CALET) mission is proposed for the Japanese Experiment Module / Exposure Facility (JEM/EF) at the International Space Station. Major purpose of the mission is to reveal the origin of cosmic-ray electrons and the diffusion characteristics in the Galaxy.
The instrument will be composed of an imagining calorimeter (IC) with scintillating fibers and a total absorption calorimeter. The total thickness of material is 45 r.l. for electro-magnetic particles (13 r.l of lead in IC and 32 r.l of BGO in TASC) and 2.1 m.f.p (0.5 m.f.p in IC and 1.6 m.f.p in TASC). Total weight of the payload is nearly 2,200 kg, and the effective geometrical factor for electrons is about 1 m^2 sr. The hadron rejection power might be 10^6, which enables us to observe the electrons up to 10 TeV. The detector has also capability of measuring gamma-rays over 1 GeV, keeping the energy resolution within a few % up to the TeV region.
We are expecting to launch the CALET around 2007 by the Japanese H-II Transfer Vehicle (HTV).