

The High Energy Particle Detector calorimeter

The High-Energy Particle Detector (HEPD) is one of the payloads of the CSES space mission. The HEPD is built by the Italian “Limadou” collaboration and has different goals. It will study the temporal stability of the inner Van Allen radiation belts, the precipitation of trapped particles in the atmosphere and the low energy component of the cosmic rays (5 - 100 MeV for electrons and 15 - 300 MeV for protons). It has been tested at the Beam Test Facility of the INFN National Laboratory of Frascati, for electrons, and at the Proton Cyclotron of Trento, for protons. Here is presented a study of the performance of the apparatus to separate electrons and protons and identify nuclei up to iron.

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