PKU Energetic Particle Instrument

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The PKU energetic particle instrument (EPI) is designed to make measurements of the three-dimensional distribution of suprathermal electrons and ions with good time, energy and angular resolutions in the interplanetary space, respectively, at energies from 20 keV to 1 MeV and from 20 keV to 11 MeV. The EPI consists of four dual-double-ended foil/magnet semi-conductor telescopes, which cleanly separate electrons in the energy range of 20–400 keV and ions from 20 keV–6 MeV. The output of front detectors is taken in anti-coincidence with center detectors, to achieve the low background. The magnet telescopes also employ the well-established dE/dx vs. total energy approach to determine the nuclear charge and mass of some ion species.