

Heavy ion fragment beam test of Silicon Charge Detector

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Silicon Charge Detector is to measure the charge of incident cosmic-ray nuclei with a resolution of 0.2 charge unit for atomic number, $Z=1-30$ with energy range from 1 to 1000 TeV. It is one of detectors for CREAM (Cosmic Ray Energetics And Mass) experiment to test current models of source and acceleration mechanisms of ultra high energy cosmic rays. It's first flight will be with a NASA zero pressure balloon planned to be launched from McMurdo Station, Antarctica in December 2004. SCD was exposed to heavy ion fragment beams at CERN's H2 beam line in November 2003, and demonstrated its ability to measure incident particle charge as designed. The test result will be presented.