

[S10-3] Status of the CREAM Experiment :
The First Balloon Flight and Preparation of The Second Flight

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A long duration balloon experiment for very high energy cosmic ray measurement, CREAM(Cosmic Ray Energetics And Mass), had its first flight for nearly 42 days in Antarctica from December 15, 2004. The payload detectors were designed to measure the energy spectra and composition of cosmic ray in the energy range between 1 TeV and 100 TeV. The SCD(Silicon Charge Detector) for the dedicated charge measurement of individual cosmic-ray operated successfully. It consists of 2912 pixel silicon sensors and the readout electronics with wide dynamic range for charge detection from Z=1(Proton) up to Z=26(Iron). The second flight (CREAM-II) scheduled for the end of 2005 is in preparation. The SCD has been upgraded with new design that includes another layer of the detector plane for the improved performance of charge measurement.

We present the procedure of the integration, the launch, and the preliminary results from the CREAM- I flight data as well as the construction status of upgraded SCD.

[S10-4] COREA 프로젝트

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초고에너지 우주선 (Ultra High Energy Cosmic Rays)의 연구 및 중·고·대학교 학생들의 교육이라는 두 가지 목적을 가지고 준비 중인 COREA (COsmic ray Research and Education Array in Korea) 프로젝트를 소개합니다. 특히 천문학적인 목표를 포함한 COREA 프로젝트의 목표 및 현재까지의 추진 현황을 중점적으로 소개합니다.