ICRC2015

ICRC
The Astroparticle Physics Conference
34th International Cosmic Ray Conference
July 30 - August 6, 2015
The Hague, The Netherlands

Contribution ID: **1349** Type: **Poster contribution**

Design, Fabrication and Performance of the Silicon Charge Detector for the ISS-CREAM

Saturday 1 August 2015 15:30 (1 hour)

The ISS-CREAM experiment is a space-borne mission designed for the precision measurement of energy and elemental composition of cosmic rays. It will be launched to the International Space Station. The Silicon Charge Detector (SCD) is an instrument equipped with four layers of high-precision silicon pad sensors and readout electronics arranged in such a manner that it is free of dead area. Therefore the SCD is capable of the precise measurement of elemental composition of cosmic rays with the charge resolution of $\delta Z \leq 0.2e$ for proton (Z=1) to nickel (Z=28). The SCD has been integrated into the ISS-CREAM payload which currently undergoes a series of space qualification tests. We will present the design and fabrication of the SCD. We will also present thermal-vacuum and vibrational characteristics of the SCD, and the response of the SCD to ground mouns.

Collaboration

– not specified –

Registration number following ”ICRC2015-I/”

1002

Author: Dr LEE, Jik (Sungkyunkwan Univeristy)

Co-authors: Mr PARK, A.H. (Sungkyunkwan University); Prof. SEO, Eun Suk (University of Maryland (US)); Dr LEE, H.Y. (Sungkyunkwan Unviersity); Prof. PARK, I.H. (Sungkyunkwan University); Dr JEON, J.A. (Sungkyunkwan University)

Presenter: Dr LEE, Jik (Sungkyunkwan Univeristy)

Session Classification: Poster 2 CR

Track Classification: CR-IN