Application of Desensitized Nuclear Emulsion films for Chemical Composition Study of Cosmic-ray Nuclei in GRAINE 2018 balloon-borne experiment

Friday 16 July 2021 19:18 (12 minutes)

We have developed the desensitized nuclear emulsion films suitable for the detection of heavy cosmic ray nuclei in the high speed image processing systems (HTS) which was utilized at Nagoya University. And we have carried out our balloon flight of nuclear emulsion telescope for high resolution gamma-ray imaging of Vela Pulsar in April, 2018. We have deployed the emulsion chamber which consisted of several sensitivity type of desensitized nuclear emulsion films in this balloon flight.

We are going to report the results of this pilot studies of the application of desensitized films for the detection of cosmic ray nuclei, and the potential of sensitivity control of nuclear emulsion films suitable for image analysis.

Keywords

cosmic ray nuclei, desensitized nuclear emulsion film

Collaboration

other (fill field below)

other Collaboration

GRAINE collaboration

Subcategory

Experimental Methods & Instrumentation

Primary authors: IYONO, Atsushi (Okayama University of Science); Dr YAMAMOTO, Saya (Okayama University of Science); Prof. AOKI, Shigeki (Kobe University); ROKUJO, Hiroki (Nagoya University); TAKAHASHI, Satoru

Presenter: IYONO, Atsushi (Okayama University of Science)

Session Classification: Discussion

Track Classification: Scientific Field: CRD | Cosmic Ray Direct