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Ovservation of heavy ions using Polyethylene Terephthalate (PET) detector at mountain altitude

Abstract content

We exposed three stacks of Polyethylene Terephthalate (PET) detectors each of thickness 100 micron and area 21cm X 30cm at Darjeeling, India (North East Himalayan Range), under an atmospheric pressure of 765 hPa. This particular brand (Desmat Century) of plastics is found to have a charge detection threshold (Z/beta) >140. These stack of detectors were kept in the open air for 182 days in the following configurations. One of the stacks was hemispherical in shape to study the arrival direction of cosmic rays, another stack was shaded with a plexiglass plate to block cosmic rays so as to study the local radiation and third one was kept flat. After etching with 6.25 N NaOH solutions under suitable condition for three hours, charge particle tracks were observed. Detailed results will be presented.

If this papers is presented for a collaboration, please specify the collaboration

Summary

Reference

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