

Statistics of Ground Level Events

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It is possible for a cosmic ray monitor on the ground to detect solar energy particles which exceed 500MeV. Flux enhancement of the cosmic ray monitor by solar energetic particles is called Ground Level Event (GLE). Although number of GLEs increase near solar maximum, it may occur even near solar minimum. Ground-based cosmic ray observation started around the 1940s and approximately seventy GLEs have been observed until now. Many statistical analyses on GLEs have been carried out using those events. They are solar longitudinal distribution of GLE sources, relations with flares or coronal mass ejections, relations with solar radio bursts in microwave range, and so on. We will review the previous results and show our results on GLE.

Keywords: GLE, solar flare, solar microwave burst, space weather