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COSMIC RAY INTENSITY VARIATION ON THE ONSET OF INTERPLANETARY MAGNETIC CLOUDS

Abstract content

An investigation has been made so as to study the cosmic-ray decreases occurring during 2006 with respect to the arrival times of interplanetary shocks and magnetic clouds. We have identified three interplanetary magnetic cloud events during 5, February 2006, 13 April 2006 and 14 April 2006. The interplanetary magnetic field (B), north south component of interplanetary magnetic field (Bz), solar wind velocity, sunspot number (R) and disturbance storm time index (Dst) associated with these events has been studied in the present work. The data (neutron monitor count rate) from Newark Neutron Monitor 9NM64 has been used. The north south component of IMF (Bz) produce large geomagnetic disturbance on the onset of interplanetary magnetic clouds. The deviations in the interplanetary and solar wind plasma parameters are significantly correlated to the magnetic cloud events. The increase in Dst index, sunspot number (R) and Bz after the magnetic cloud event produces increase in cosmic ray intensity.

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

Summary

Reference

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