

Observations of Electric Fields at Dipolarization Sites from THEMIS mission: Preliminary Results

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The electric fields at dipolarization sites in the Earth's tailside have been found to be disturbed when geomagnetic activities occurs (i.e., AL index decreases). These fields can accelerate electrons so that they are possible to be associated with electron injection or changes in electrons' pitch-angles. Therefore, it is essential to understand the variations of these environmental electric fields when dipolarization occurs. In this study, observational data of electric fields from the EFI (Electric Field Instrument) on board of THEMIS mission are analyzed. The database are selected based on dipolarization events around 10 Earth radii identified according to THEMIS observations from year of 2008 to 2011. Both the large-scale and wave-scale features of these dipolarization electric fields will be investigated. The preliminary results of this analysis will be shown in the poster.

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