Dynamics of low-latitude geomagnetic disturbances during the storm on November 9-10, 2004

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The dynamics of low-latitude geomagnetic disturbances during the magnetic storm on November 9-10, 2004 has been studied by using data of the Chinese meridional station chain depending on a location of the auroral western electrojet. It is shown that the character of temporal variations of low-latitude geomagnetic disturbances at the meridian of western electrojet intensity maximum essentially depends on the L-parameter. It is apparently associated with a penetration of the disturbance electric field into low latitudes.