# ASYMMETRY IN THE SUBSTORMS DEVELOPMENT IN NORTHERN AND SOUTHERN HEMISPHERES OF THE EARTH

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The asymmetry in the intensity of H-component bays at the auroral stations, at the conjugate points of geomagnetic field in the northern and southern hemispheres caused by IMF $B_y$ has been established. At $B_y < 0$ and $|B_z|/|B_y| < 1$, a bay amplitude in the geomagnetic field H-component in the auroral zone of southern hemisphere is more than in the northern one. In some events, at $B_y < 0$, the typical substorm in the southern hemisphere and geomagnetic disturbances in the northern hemisphere consisting of short-term variations of a small amplitude are observed.

One of the possible mechanisms of the found asymmetry is the irregular redistribution in hemispheres of currents forking from the magnetotail equator into the ionosphere.