

The strong precipitation boundary of different energy particles under the Tsyganenko-89 magnetosphere model

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We determined nonadiabatic conditions of energetic particle motion in the framework of Tsyganenko-89 magnetospheric model for $K_p = 1; 3; 5$. In our calculations we used central trajectory (CT) as a model of guide center trajectory. CT is such the trajectory along which a particle can come the dipole center. We analysed dependences of strong particle precipitation along drift trajectory on invariant latitude, MLT, particle energy. The results obtained were compared to experimental data on low energy cosmic ray penetration and trapped particle strong precipitation.