ANALYSIS TO THE ENERGETIC PARTICLES AROUND THE CHILI EARTHQUAKE M 8.8

Based on the IDP data from French DEMETER satellite, the global distribution of the energetic particles is shown at the height of 660km, which corresponds to three precipitation zones: aural precipitation zone, mid-high latitude precipitation zone and South Antarctic zones. Then the Chili earthquake with M 8.8 on February 27, 2010 is taken as an example. The IDP fluxes from revisited orbits are compared and the results show that there is a clear enhancement on February 26, just one day ahead of the Chili earthquake. In the south zone with L=2.1~2.7, the flux on February 26 is higher than that on other days before. Furthermore, its north zone with L=2.1~2.7, there is no clear change in the day time but there is great enhancement during the night, which is close to the earthquake occurrence time. At the same time, the flux on February 26 near the equator is far lower than that on other days before.