Gangguan Geomagnet Pada Fase Minimum Aktivitas Matahari Dan Medan Magnet Antarplanet Yang Terkait

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Abstrak

Geomagnetic disturbances are closely related with the interplanetary magnetic field, particularly the southward component (negative Bz), since such condition can lead to the energy tranfer from the solar wind into the Earth’s magnetosphere. The energy transfer can cause disturbance in geomagnetic field, which is represented by disturbance index Dst. The good correlation between the minimum values of Bz and Dst means that the stronger the magnetic field can lead to the stronger disturbance. However, the minimum of both parameter do not occur simultaneously. From analysis of 41 geomagnetic storms with Dst ≤ -30 nT, in general, the time delay between Bz and Dst is two hours, which Bz reach minimum two hour before the Dst. It represent the time that required by the disturbance to travel from magnetopause to the Earth.
Keywords: Geomagnetic disturbance, Interplanetary magnetic field