

Sunward propagation characteristics of Pc5 ULF waves at dayside magnetosphere

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Abstract The waveforms, power spectra and polarization characteristics of Pc5 ULF waves observed in the ACE satellite and the GEOS12 satellite (at synchronous orbit) at dayside during a geomagnetic storm on November 9, 2004 show the good correlation oscillation, spectral peaks simultaneously, and the similar polarization ellipses, respectively. In CANOPUS, MACCS and GREENLAND magnetometers chain, the Pc5 waves propagate toward sun, and propagate from higher latitude region to lower latitude. The polarization and propagation characteristics of the Pc5 waves indicate that the shear Alfvén waves and the compression waves are coupled together simultaneously.