



Signature of Pc5 ULF waves associated with dayside magnetic reconnection

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Interaction between solar wind and magnetosphere excites the ultra-low frequency (ULF) waves. These waves in inner magnetosphere can be amplified by the field line resonance process. We present two Pc5 ULF wave events are observed by the satellites and multiple ground-based magnetometer chains. These ULF waves occurred for many hours and were observed throughout the magnetosphere and near cusp region. For the two events, the observations of high latitude reconnection are revealed by satellites INTERALL-1, MAGION-4 and Polar. When magnetic reconnection occurred, the activities of Pc5 ULF waves were depressed. We interpreted this phenomenon as an effect of field line disruption which switched off the transform processes of the ULF wave energy entering into the magnetosphere from outside through field line resonance mechanism.

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