

Variation of geomagnetic transfer functions associated with the 1997 Kagoshima earthquakes

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In order to investigate temporal changes of electromagnetic structure caused by the 1997 Kagoshima earthquakes, we calculated the interstation transfer function at the Kagoshima station (Circum-pan Pacific Magnetometer Network Group) and the Kakioka station (Magnetic Observatory Japan Meteorological Agency), using 1-sec sampling magnetometer data. In the period range 30-300s transfer functions has been made for the 200 day period preceding earthquakes. From the study using two sites, local to and remote from the earthquake epicenter, we found that that the magnitude of the real part of transfer function C and F decreased at short periods ($< 100s$) some 40 km from the main epicenter before earthquakes.