

Post-seismic geomagnetic variation generated by seismogenic ionospheric disturbance

K. Mochizuki ¹⁾, Y. Kakinami ²⁾, Y. Orihara ^{1,3)}, K. Yumoto ⁴⁾,
T. Mogi ²⁾, and M. Kamogawa ¹⁾

1) *Department of Physics, Tokyo Gakugei University, Koganeishi-shi, Tokyo, JAPAN*

2) *Institute of Seismology and Volcanology, Hokkaido University, Sapporo, Hokkaido, JAPAN*

3) *Earthquake Prediction Research Center, Tokai University, Shizuoka, JAPAN*

4) *Space Environment Research Center, Kyushu University, Fukuoka, JAPAN*

5) *Department of Earth Sciences, Graduate School of Science, Chiba University, Chiba, JAPAN*

We investigate geomagnetic variation associated with the seismogenic and tsunamigenic ionospheric disturbance excited by the M9.0 Tohoku earthquake. In the south part within 600 km from the epicenter, the clear acoustic and gravity waves excited by the tsunami. This may occur due to the E-region dynamo originated from the acoustic and gravity waves. On the other hand, we observe the geomagnetic variation associated with the seismogenic and tsunamigenic variation in the north part. So far, the physical mechanism is still unclear.