

MT and GDS survey in Korea

Toru Mogi[1], Masao Nakada[2], Koichiro Fukuoka[3], Yoon Ho Song[4], Seung Hwan Chung[4], Kyung Duck Min[5]

[1] ISV, Hokkaido Univ., [2] Earth and Planetary Sci., Kyushu Univ, [3] Graduate School of Engineering, Kyushu Univ., [4] KIGAM, [5] Earth Environment Sci., Yonsei Univ.

The GDS and MT survey have carried out in the Korean peninsula and the Cheju island to discuss existence of a high conductive layer (HCL) at depths of the lower crust to the upper mantle. The electric and magnetic field variations at period up to 15000 sec. have been observed at 8 sites. The induction vector showed that the modulus of the vector is less than 0.2 at every site and the azimuth of vector tend to point to SE at the longer period. This result can be explained by an effect of sea in some sites. But the azimuth pointed to the south at the west coast and west Cheju island. This suggests that the HCL may exist at the west off of the Korean peninsula. The HCL at depths of the lower crust to the upper mantle is appeared in the conductivity structure derived from MT survey.

The GDS and MT survey have carried out in the Korean peninsula and the Cheju island to discuss existence of a high conductive layer (HCL) at depths of the lower crust to the upper mantle. The electric and magnetic field variations at period up to 15000 sec. have been observed at 8 sites. The induction vector, derived from 3 components of magnetic field variation, showed that the modulus of the vector is less than 0.2 at every site and the azimuth of vector tend to point to SE at the longer period. This result can be explained by an effect of sea in some sites. But the azimuth pointed to the south at the west coast and west Cheju island. This suggests that the HCL may exist at the west off of the Korean peninsula. The HCL at depths of the lower crust to the upper mantle is appeared in the preliminary conductivity structure derived from MT survey.