

Concentration of magnetotelluric current caused by local 3-D resistivity heterogeneities

Hiroshi Ichihara^{1*}

¹Japan Agency for Marine-Earth Science and Technology

Geomagnetic variation originated from solar activities induces telluric current in the earth. The telluric current largely depends on the resistivity heterogeneity. Recent progression on magnetotelluric method enabled us to model 3-D resistivity distribution and revealed complicated resistivity structure of subsurface. In this presentation, I introduce the phenomena that complex conductive body composed from seawater and sediment induces local concentration of telluric current (e.g. Ichihara and Mogi, 2009). These phenomena are reported especially in Japan such as northeastern Hokkaido (Ichihara et al., in rev) and Kitakami area.

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