

## A preliminary report of the deep conductivity structure in the back-arc region of the Philippine Sea plate, northern Kyushu

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The OBEM observation and the long-term MT surveys have been conducted in East China Sea, Tsushima, Iki, Goto and northern and central Kyushu, to investigate conductivity structures of the lower crust and the upper mantle in the back-arc region of the Philippine Sea plate. The one-dimensional modeling using the invariant apparent resistivity data indicates the following results. (1) The high-resistive lower crust and upper mantle are found beneath the volcanic front in central Kyushu. (2) The conductive layers of smaller than 100 ohm-m lie in the uppermost part of the mantle beneath the area from the northern coast to Tsushima and beneath East China Sea west off Kyushu. The conductive layer implies the partial melting in the upper mantle of this back-arc region.