

Electrical resistivity structure along the Atotsugawa fault -Preliminary Report-

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In 2005, wideband magnetotelluric (MT) soundings were carried out along the Atotsugawa fault located in the Niigata-Kobe Tectonic Zone (NKTZ). The NKTZ becomes one of important target areas in 'the 2nd new Program of and Observation for Earthquake Prediction' (Hirata, 2004). Moreover, a seismic gap and a creep-like crustal movement are detected in a same segment along the Atotsugawa fault. In order to reveal heterogeneity along the fault from the point of view of resistivity structure, we made MT measurements with following specification. At 9 sites on a profile set up along the fault with length of 50km, we obtained the electric and magnetic fields data using MTU5/5A and MTU2E systems (Phoenix Geophysics). Obtained preliminary inversion result shows lateral inhomogeneity correlated with heterogeneity in seismicity, which is suggested that the seismic gap on the fault plane seems to be modeled as a high resistive block.