

Conductivity distribution beneath the Chugoku and Shikoku district, Southwest Japan, inferred from the Network-MT method

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Subsurface conductivity distributions beneath the Chugoku and Shikoku districts were surveyed using the network-MT method. Significant differences are found in both apparent resistivities and phase values between two districts: 10 degrees in phase value and about half order in apparent resistivities. These differences reflect the big differences in subsurface conductivity structure between them. In order to calculate accurate MT impedances, at the first, we calculated MT impedances to the Kanoya observatory, which is the nearest observatory and is 400km away from our study area. Then the MT impedances were transformed to those to the temporary station (UMJ) in our study area using the transfer function of magnetic field variations between Kanoya observatory and UMJ station.