

## Subsurface Resistivity Imaging by TDEM Method in Nasudake volcano

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Resistivity structure survey of shallow part by TDEM method was carried out around Cyausu-dake (1915 m) of active volcano, Nasudake, to investigate the relationship with fumarolic area and geological structure. Two survey lines were set in the east-west (5.5 km) and the north-south direction (3.1 km) where the intersection of Minenocuyaya-ato of the northern side of Cyausu-dake.

On the western side from Minenocuyaya-ato of the east-west survey line, it is shown that resistivity structure has a two-layer structure of low- medium resistivity, whereas on the east side it was a three layer structure with low- medium- high resistivity. The low resistivity value layer on the eastern side of the survey line is considered to indicate the fluidized layer of hot water because the source of the hot spring is dotted in the surrounding area.

On the north - south survey line, the resistivity structure was roughly a two - layer structure with low - medium resistivity. In the fumarolic area, the layer thickness of low resistivity was thin, and the medium resistivity area continued until the analysis depth (altitude 800 m).

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