

Audiomagnetotelluric and Self-potential Survey on Hokkaido Komagatake Volcano

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Hokkaido Komagatake is an active stratovolcano which is located in the southwestern part of Hokkaido. We carried out the audiomagnetotelluric (AMT) survey across the edifice of the volcano in July, 1998. The observation points amounted to 18 were arranged along the NE-SW profile which was perpendicular to the fissure on the summit crater. The profile was also perpendicular to the regional strike of the basin estimated from the gravitational surveys. By using 2-D modeling technique, the resistivity cross section to a depth of about 1 km was well estimated. Self-potential (SP) mappings in the summit crater were also made two weeks before and after the small phreatic eruption occurred on Oct. 25, 1998. The comparison revealed no significant change of the SP field.