Geophysical techniques for detecting crustal magma and high-temperature fluids

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The effects of volcanic activities to the geological disposal system are magma intrusion, and generation of geothermal flows. Considering geological long-term stability at the disposal site, it is important to prepare some geological tools to understand the existence of deep magma and/or high temperature fluids. We introduce geophysical methods, such as seismic tomography and magneto-telluric method, to investigate the distribution of deep heat sources. In addition, we present results of case studies for Onikobe-Naruko volcanic area and southern Kii Peninsula, Japan.