

## Estimation of Subsurface Temperature in the Ashio Region with Heat Flow and Radio Active Heat Generation Measurements

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At Ashio active seismic region of microearthquakes, we estimated subsurface temperature by numeric calculation applying results of measurements of terrestrial heat flow and radio active heat generation of rocks in the 2000m depth borehole. We assumed that the heat is conducted steadily to one-dimensional direction in homogeneous and isotropic media and that the thermal conductivity of rocks is dependent to temperature. Variety in the temperature dependence of thermal conductivity of crustal rocks leads to the uncertainty of estimated subsurface temperature. The estimated temperature is 310-360C at the cut-off depth of microearthquakes and 550-780C at the S wave reflector beneath the Ashio borehole.