

## Spatial characteristics of local magnetic anomaly on volcanoes

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On-land surveys of total magnetic field has been carried out by using a cesium optically pumped magnetometer at some volcanoes: Miyake-jima, Kilauea, Iceland, and etc. Reappearance of the results of observations by the magnetometer were very good. Observed local magnetic anomalies on these volcanoes indicated the following spatial characteristics. First, spatial variation of local magnetic anomalies often reaches 1000 nT only for several tens of meters. Next, different lavas show different wavelengths and amplitude, even if they originate from the same volcano. The reason why individual lavas have different characteristics in magnetic anomaly has not been clear.