

SELF-POTENTIAL ANOMALIES OF ACTIVE VOLCANOES IN SOUTHERN KYUSHU

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Large-scale self-potential anomaly of positive sense is sometimes observed in the volcanic area, which is considered to indicate an intense hydrothermal activity beneath the volcano. We have been conducted self-potential (SP) surveys on Suwanosejima, Satsuma-Iwojima, and Kaimondake. The objective of this study is to reveal the hydrothermal activity beneath those volcanoes and, if possible, to give some constraints for the volcanic activity by comparison. A positive SP anomaly was found on those volcanoes together with the negative topographic effect, although intensity and extent of the anomaly were different. The repeated measurements made on the different activity level indicated that the volcanic activity is sensitive to the SP data around the foot of the volcano rather than the summit.