

## Detection of the Magma Movements by Measuring Transient Streaming Potential

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Electric potential variations have been observed since April 1999 at the Miyake Island, a volcanic island in Japan. The measurements have been conducted by a special long vertical antenna and by a short dipole.

At the time and some half a day before of the largest eruption on 18 August 2000 anomalous electric field changes were detected on the whole frequency bands of dc, ULF and ELF/VLF. Longer period fluctuations of period about a few hours were also seen before about a day of each stage of the volcanic event. Those longer signals were generally superimposed by the ULF signals, suggesting that there are a strong confined water pressure fluctuation in the process of interactions between hydrothermal circulations and intruded magma through electro-kinetic effect