

**Numerical approach of geomagnetic changes associated with hydrothermal activity.**

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Continuous observations of geomagnetic total intensity have been carried out on many active volcanoes (e.g., Tanaka, 1993; Sasai et al., 2002). Geomagnetic field variations observed at many volcanoes suggest stress changes, temperature changes and/or inside those volcanoes. Such volcanomagnetic effects are largely controlled by a behavior of volcanic fluids or hydrothermal systems that transport heat and mass from the deep source. Therefore we have developed a postprocessor to calculate the geomagnetic field changes due to the volcanomagnetic effects caused by hydrothermal activities.