

Source Mechanism of Volcanic Earthquakes and Tremor observed at Asama Volcano by Seismic Observation and Data Analysis

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Using the high quality data obtained by the seismic network near the summit crater of Asama volcano, we research the source mechanism of volcanic earthquakes and tremor observed at Asama volcano. From the distribution of the polarity of first break, B-type earthquakes which are frequently observed at Asama volcano seem to be caused by normal fault or explosive source. N-type earthquakes of Asama volcano which correspond to low frequency events contain a long coda wave which attenuates monotonically with a dominant frequency of 1 to 3 Hz for 1 minute. Comparing the hypocenter determined by P-wave arrival times and the location obtained by cross-correlation analysis, the part of first motion and the part of the coda wave are generated at the different area.