

Tilt change synchronized with the volcanic earthquake, occurred before the step-like tilt

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We have been conducting continuous tilt observation in Miyakejima. During the caldera forming stage, extraordinary step-like tilt signals (step A) were detected. A few hours to half day prior to the step A, distinct volcanic earthquakes occurred and simultaneously tilt change was detected. We investigated those two and following features were cleared. 1) Very small amount of step-like tilt (step B) was detected coincidentally the volcanic earthquake occurred. 2) Tilting directions were in the sense of ground-up toward the summit, suggesting that pressure source exists near the summit. 3) Tilting direction was then followed by the tilt of reverse sense of gradual movement. 4) When the earthquakes continuously occurred, tilt amount became large due to each step's accumulation.

Fig. 1

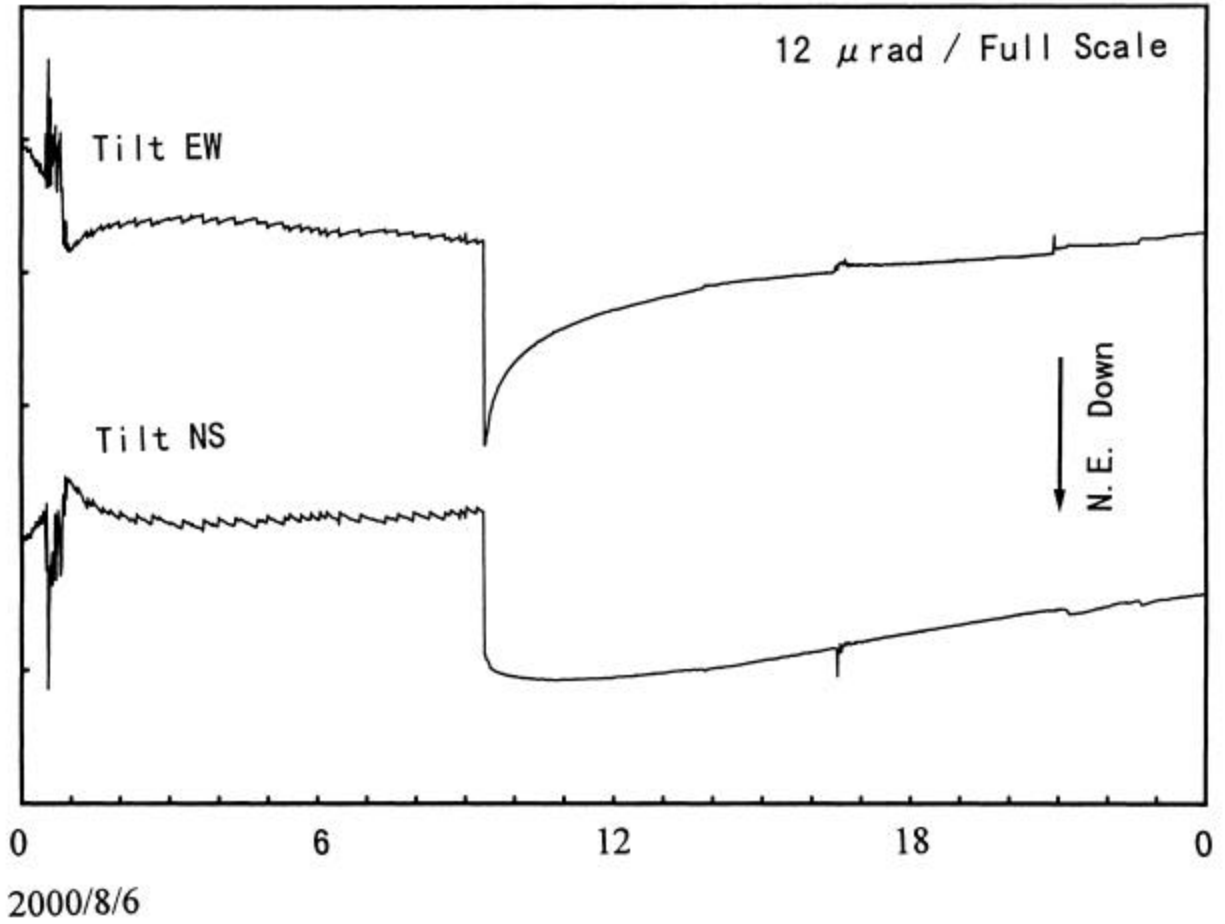


Fig. 2

