

Time constant of the 2000 eruption of Volcano Usu

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The temporal variation of the ground deformation in case of the 2000 eruption of Volcano Use has been detected by the GPS observation conducted by Institute of Geographical Survey, Geological survey of Hokkaido and Hokkaido University. The process is modeled considering the intercellular current response of the nerve cell. The ground deformation started at about 3 oclock in the morning of March 29, 200 and lasted until the time of the eruption on March 31. The deformation continued as the relaxation process with a time constant of 1.2 to 1.5 days and never has been excited again. The deformation in the vicinity of the Nishiyama crater lasted more or less longer until April 2. This gradual relaxation harmonizes with our gravity measurement.