

Investigation on lava flow by using tree molds structure located at Mt.Fuji

Tsutomu Honda[1]

[1] Mt.Fuji Volcano-Speleological Society

By observing the structure of tree mold, lava flow characteristics such as lava thickness, flow speed and flow direction can be deduced. Here, the viscosity of the basaltic lava flow of Taka-Marubi-I ejected about 1000 years ago in the eastern flank of Mt.Fuji was estimated. The corrosion of the lava flow to a standing tree produces a protruded part in front of the tree mold. From this height, the speed of lava flow was estimated and substituted to the equation of Navier-Stokes of one-dimensional flow under the assumption of Newtonian and laminar flow. The estimated viscosity was about 3000 poise, which seems to be reasonable as low fraction of silica content basaltic (50.2%).