

## Kudzu-yu tells the dynamics of the volcanic eruption: vesiculation and bubbling in the viscous fluids

# Yasuko Yamagishi[1], Yoshiko Ogawa[2], Ichiro Kumagai[3], Takatoshi Yanagisawa[1], Kei Kurita[4]

[1] IFREE, JAMSTEC, [2] ERI, Univ. of Tokyo, [3] EPS, TITECH, [4] ERI, Univ. of Tokyo

We have conducted laboratory experiments on vesiculation phenomena in kudzu-yu (starch gruel). This work aims at understanding explosive dynamics in a magma chamber and a volcanic vent.

Our experiments were conducted in a cylindrical tank containing kudzu-yu as magmatic fluid. In order to produce air bubbles, we put gas-forming agents in the tank and observed the vesiculation phenomenon. Controlling parameters of our experiments were initial temperature of the kudzu-yu, viscosity of the kudzu-yu, and volume of the gas-forming agents.

In this presentation, we will discuss the effects of these parameters on the vesiculation and bubbling in the kudzu-yu and consider the style of volcanic eruptions.