

## Dynamics of magma including bubbles during an eruptive sequence

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The characteristics of volcanic eruption are generally explained by eruption styles and eruptive sequence. Differences in characteristics both of them concern with magma dynamics. Particularly, the presence of bubble in magmas has an effect that ascending rate of magma increase during magma ascent. Therefore, for differences in eruption styles, the vesiculation of ascending magma in the conduit is noticed, due to decompression. However, there is not sufficient discussion of magma dynamics including bubble related to eruptive sequence. To understand relation between eruptive sequence and dynamics of magma including bubble, we conducted laboratory experiments (in the last conference in 2008). In this conference, we apply experimental results to actual eruptive sequence.

We carried out an analogue experiment with bottom heating starch syrup in the last conference. To clear the physical conditions, we measured vertical temperature distribution, concentration, viscosity, and boiling point of starch syrup. Consequently, we found that physical conditions became heterogeneous in starch syrup, tiny bubble grow in certain region.