

Petrological characteristics of Janoo products, a Holocene scoria cone, precursory to the 4-3.3 ka basaltic events in the NW part of Aso central cones, Kyushu.

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Janoo scoria cone (4.9-4.1 ka; Miyabuchi, 2017) characterizes the precursory eruption of the mainly basaltic Holocene volcanism (4-3.3 ka; ditto) of Kijima-dake, Ojo-dake, Komezuka and Kami-Komezua in the northwestern part of Aso central cone. The scoria cone is associated with Akamizu lava flows and widespread ACP-1 tephra with vesiculated dacite pumice, whose composition varies from basaltic andesite to dacite, and shows an interesting contrast to the following basaltic activities.

We analyzed three samples from Akamizu lava and one sample from ACP-1 pumice for minerals and melt inclusions. Akamizu lava samples were taken from northwestern end of lava flow unit, and correspond to basaltic andesite composition in Miyabuchi (2017).

The petrological observation of the Akamizu lava shows numerous melt inclusions in plagioclase and pyroxene. Biotite and hornblende was not found in the thin sections we analyzed. The compilation of the analysis of melt inclusions show us a high-K and alkaline trend in K_2O-SiO_2 and TAS diagram. The analysis of some ACP-1 pumice agrees with this result. They show a strikingly wide compositional variations from basaltic to rhyolitic, with majority values from 55% SiO_2 to 70% SiO_2 . Groundmass glass from ACP-1 also shows the same compositional range as those of melt inclusions.

Groundmass olivine (50-100 μm) was found in Akamizu lava (Mg# = 50-55) and in the ACP1 pumice (Mg# = 60-70). These all give us problematic but interesting results to be interpreted by a rigorous model.

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