

Magma mixing and melt inclusions in phenocrysts of younger lavas of the Kusatsu-Shirane volcano, central Japan

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Melt inclusions of phenocrysts of the younger lavas of the Kusatsu-Shirane volcano, central Japan were studied based on microprobe analyses and heating-stage experiments. Crystal-size distributions of plagioclase phenocrysts and the zoning texture of plagioclase suggest that mafic magma multiply intruded into felsic magma chamber before the eruption in the magma plumbing system of the volcano. Textural observations and the heating experiments show that olivine phenocryst includes sulfur-rich mafic melt, and orthopyroxene, clinopyroxene and plagioclase contain sulfur-poor felsic melt.