

# Volcanic geology and chemical compositions of the Kanab monogenetic volcano group, north kinki

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Kannabe Monogenetic Volcano Group is situated in north Kinki, southwest Japan, where is the eastern end of the distribution of alkali basaltic monogenetic volcanoes in Sanin area. In the group, Nishiki (0.7Ma), Otukue (0.22Ma), Yamamiya, Buri, (0.17Ma), Tada (0.10Ma), Kiyotaki(0.06Ma) and Kannabe (about 10Ka) volcanoes are distinguished. Each volcanoes erupted scoria, and effused lava flow except Yamamiya and Kiyotaki volcano, where lava flows were not found. Tada lava is found only in a drilling core at the southeast foot of the Kannabe volcano. Lavas in the volcano group contain olivine and plagioclase as phenocrysts, and olivine, plagioclase, iron ores in groundmass. Essential blocks in Yamamiya volcano contain olivine, plagioclase and hornblende.

SiO<sub>2</sub> content in the group ranges 47-52 wt.%, Lavas of each volcano have characteristic proportion of phenocrystic olivine and plagioclase, and a narrow range of SiO<sub>2</sub>wt.% (1-2.5wt.%). In the upper part of the drilling core, a new Kannabe lava is found, which is rich in SiO<sub>2</sub> (52.5%) than other Kannabe lavas (47-49wt.%). Each volcano change chemical compositions, gradual increase or interruption of the gradual change in SiO<sub>2</sub>wt.% during activity. Primary magma of each volcano is slightly different in chemical compositions. Each volcano clearly shows linear trends on various chemical variation diagrams, which suggest magma mixing is remarkable in chemical variation in each volcano.