

## Geology and Petrology of Kamurodake volcano between Yamagata and Miyagi

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Kamurodake volcano is located between Miyagi and Yamagata, northeastern Japan. It belongs to the Sekiryu zone of the northeast, Japan.

Geological and petrological studies of this volcano have been carried out.

I investigated the lithofacies of Kamurodake volcano and tried to construct the history of the Kamurodake volcano. Moreover, I described petrographical features, analyzed chemical composition of bulk rocks and tried to clarify the petrological characteristics.

The construction history of Kamurodake volcano can be divided into three volcanic activities. The first stage volcanic activity has erupted dacite and andesite lavas and clastic rocks in eastern area. After that second volcanic activity has erupted lava flows and pyroclastic rocks of basaltic andesite, andesite, dacite mainly in the eastern area. In the last stage the Yamagata-Kamurodake volcanic activities have flowed basaltic andesite lavas in western area.

All rocks of Kamurodake volcano have augite and hypersthene phenocrysts. The rocks of the first stage volcanic product belong to hyperthinitic rock series. One of second stage volcanic products belong to the pigeonitic rock series whereas the other belong to hyperthinitic rock series. Most of last stage lavas belong to pigeonitic rock series.

To classify the rocks of the Kamurodake volcano into tholeiitic series or calc-alkaline series, I plotted the chemical composition of the bulk rocks in AFM and SiO<sub>2</sub> vs FeO\*/MgO diagrams. The chemical composition of the both rock series were however plotted nearby the dividing line or on a dividing line defined by Irvine & Baragar (1971) and Miyashiro (1974). Then I couldn't recognize high Fe-enrichment.

All the rocks from the Kamurodake volcano are classified into Low-K series.