

Alkali rhyolite found in Mt. Haguro, Tochigi Prefecture, central Japan

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Rhyolite occurred in Mt. Haguro, Tochigi Prefecture, is reported K-Ar whole rock age of 14.2±0.4 Ma (Yoshikawa, 1998). Yoshikawa (1998) shows phenocrysts of the Haguro rhyolite are comprised of quartz, plagioclase and biotite.

In this study, bulk and mineral chemical compositions of the Haguro rhyolite is revealed. Chemical compositions of the rocks were ranged 77 to 79 wt% of SiO₂ and 7 to 9 wt% of Na₂O+K₂O, and alkali feldspars are found in the phenocrysts of the rhyolite. Therefore the Haguro rhyolite is alkali rhyolite.

In N-MORB normarized incompatible element patterns, Sr is dominantly depletion. Furthermore, in chondrite normarized REE patterns, negative Eu anomaly is shown. Additionally in bulk major chemical compositions, Ca is poor. These behaviors of chemical elements suggest that plagioclase was fractionated from original magma.

Keywords: Utsunomiya city, Miocene, Alkali rhyolite