

## Pliocene volcanic activity and its significance at the Kitakami Lowland Area, Northeast Japan Arc

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There are small volcanoes in the Kitakami Lowland Area (KLAV). They constitute several domes or small stratovolcanoes. K-Ar ages of rocks indicate that they were produced by the Pliocene volcanism. Mafic andesite of KLAV belongs to tholeiitic series, whereas andesite to dacite belong to calc-alkaline series, respectively. The former is richer in FeO\* and TiO<sub>2</sub>, but poorer in Al<sub>2</sub>O<sub>3</sub> than other mafic andesite of the Pliocene age from the Northeast Japan Arc, and is divided into high- and low-Mg groups. Chemical compositions of andesite to dacite of KLAV are plotted on the extension of the mafic andesite of KLAV. The behaviors of MgO, Cr and Ni in andesite and dacite show similar characteristics of those of hypersthenic rock series of the other Pliocene rocks from the Northeast Japan Arc.