

Petrology of erupted rocks from the Aoso volcano, northeast Japan arc

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The volcanic activity of the Aoso volcano can be classified into two stages, divided by a caldera collapse. During the earlier stage, basaltic andesite and andesite dominantly erupted. During the later stage, dacitic products were erupted. Most rocks have petrologic features suggesting that these rocks were produced through magma mixing processes. Petrologic data also show end-member magmas of these magma mixing processes have changed temporally. During the earlier stage, the simple two end-member (basaltic and andesitic magmas) mixing process has dominated. On the other hand, during the later stage, end-member magmas (andesitic and dacitic magmas) had slightly different in each unit.