

Geology and petrology of Tyatya volcano, Kunashir island, southern Kuril arc

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Tyatya volcano in Kunashir island, southern Kuril arc, is a composite stratovolcano and is divided into two main volcanic edifices, older and younger stratovolcanoes. The latter one has a summit small caldera, in which central cone has been constructed. Widespread tephra from volcanoes of Hokkaido can reveal recent high eruption rate of the central cone during the last 1000 years. Rocks of the volcano consist mainly of basalt and basaltic andesite with minor amount of andesite. The rocks of the older volcano are low-K, and those of others are medium-K. In addition, whole-rock chemistry of each geological unit can be distinguished, indicating that magma system has changed according to development of volcanic edifice.