

## Pliocene adakite-like accent of andesites and dacites from the Orlov volcanic field (Sakhalin Island)

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**Abstract.** Adakite-like geochemical signature (high Sr/Y ratio at a low Y concentration) is recognized in andesites and dacites, associated with intraplate basalts in the Orlov volcanic field of Sakhalin Island. These rocks denote the final (Pliocene) accent of intraplate volcanism in the Lesogorsk zone, which began in the Middle Miocene in an area of its junction with the Chekhov zone of the preceded (Oligocene-Early Miocene) suprasubduction one. The adakite-like accent was related to the Sakhalin folding phase that accompanied the general structural reorganization in the back-side region in the Japan arc system. Such a geological environment differed from the one of classical adakites generation resulted from melting of a young slab in the Aleutian island arc. It is supposed, that the Sakhalin adakite-like magmas were produced in deep-seated sources of the crust-mantle transition displayed in the Sakhalin-Hokkaido-Japan Sea zone of hot transtension due to drastic change of tectonic deformations from the thin crust of the South Tatar Basin to the thicker one of its northeastern extremity.

*Keywords:*

**adakite, Cenozoic, subduction, intraplate volcanism, slab melting, Sakhalin**

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