

## Geochemistry and petrogenesis of Adakitic rocks from the Kiyamaki magmatic dome, southeast Jolfa (NW Iran)

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**Abstract:** Composition of the Kiyamaki dome has mostly dacite and granodiorite in rims, with SiO<sub>2</sub> contents ranging from 64 to 73 wt% and Mg# values ranging from 27 to 57. These rocks are high-Si adakite. Geochemical characteristics and Sr and Nd isotopic rates indicate that the rocks of Kiyamaki dome are a post-collisional adakite. Combined geochemical and Sr–Nd isotope data suggest that the Kiyamaki adakitic magma derived from partial melting of mafic rocks in the lower part of a thickened crust. So, with attention to tectonic setting and source of derived adakitic magma, age of Eocene to Miocene for generation and closing time of Neo-Tethys (Middle Miocene), it is not possible that generation of Kiyamaki adakites be directly related to geodynamical evolution of Neo-Tethys. Here, with suppose of age information for generation of Kiyamaki dome and closing of Neo-Tethys, formation of domes in the northern part of Tabriz fault can be related to the collision of Sanandaj-Sirjan micro-continual with Alborz-Azarbaijan block in Paleogene that was happened due to subduction of oceanic crust of Khoy-Zanjan basin toward beneath of Alborz-Azarbaijan block.

**Keywords:** *Kiyamaki; Adakite; Post-collisional; Partial melting of the lower part of a thickened crust; Oceanic basin of Khoy-Zanjan.*

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