Development of the magma plumbing system of the Miocene Otoge igneous complex, central Japan

Nobuo Geshi[1]

[1] Geological Inst.,Tokyo Univ.

Development of the volcanic structure and petrological character of the Miocene Otoge igneous complex, central Japan, reflect the development of the magma plumbing system beneath the volcano. The Otoge igneous complex was formed by a continuous activities of alkali basalt to trachyandesite magmas. Decrease of total volume of the igneous unit, and whole-rock MgO content during the igneous activity suggest the decrease of the supply rate of magmas associating with the decline of the igneous activity. Decline of the local stress field around the volcano caused the sift of volcanic structure from cauldron and cone sheet, which were strongly effected by local stress field, to parallel dike swarm reflect the regional stress field.