

K-Ar ages and volcanic stratigraphy of Yoshino-dai area in the Aira caldera -volcanic history before Aira pyroclastic eruption-

Masafumi Sudo[1], Kozo Uto[2], Daisuke Miki[3], Kazuhiro Ishihara[4], Yoshiyuki Tatsumi[5]

[1] DPRI, Kyoto Univ., [2] GSJ, [3] Sakurajima Volcano Research Center, DPRI, Kyoto Univ., [4] SVRC, DPRI, Kyoto Univ., [5] Inst. Geotherm. Sci., Kyoto Univ.

We performed K-Ar dating analysis of lava flows distributed at Yoshino-dai area along the western part of Aira caldera in order to investigate the volcanic activity before huge explosive eruption, Aira pyroclastic eruption at 24.5 ka. The resulted eruptive history of Yoshino-dai area is: (1) Mainly andesitic lava flows erupted and formed a volcanic edifice with 600 meter height during 1-0.8 Ma. (2) Dacitic and following basaltic lava flows erupted at 0.5 Ma. The latter effused along the flank of the andesitic volcanic edifice of 1-0.8 Ma. (3) The pumice flow and overlying basaltic lava flow erupted possibly after 0.4 Ma. The basaltic rock possibly has the youngest age before the Aira pyroclastic eruption.