

## Fission track dating of the Otawara pyroclastic flow deposit erupted from Shiobara caldera, in Northeast Japan

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The Otawara pyroclastic flow deposit (OT-pfl) erupted from Shiobara caldera located in the north foot of the Takahara volcano, distributed mainly on the southeastern side.

Koike *et al.* (1985) reported fission-track (FT) dating of  $0.50^{+} \pm 0.08$  Ma for zircon samples collected from ash layers (Nm-14) below OT-pfl. Suzuki (2004) was obtained about 0.30-0.33 Ma by wide spread tephra and fission track age with the zeta calibration.

We collected from two pumice samples (Sample-1, -2) in the OT-pfl at the Nishitsuchiya and Otohata, Yaita city, and collected from biotite-bearing ash sample (Sample-3) lower 75 cm from pyroclastic flow deposit that similar to OT-pfl at the Yoshii, Nakagawa town.

Sample-1 includes a small amount zircon, therefore discontinued dating. Sample-2 contains extraneous crystals, wherefore removed it on the basis of  $x^2$  value of each crystal. As a result, we obtained a fission track age of  $0.64^{+} \pm 0.09$  Ma. Sample-3 dated  $0.59^{+} \pm 0.04$  Ma. It is correlate Kaisho-Kamitakara tephra.

This chronological study suggests some unit of OT-pfl erupted at least 0.6 Ma.