

## Holocene Eruptions in Daisen Volcano, Western Japan

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Daisen is a large Quaternary composite volcano in western Japan (Tsukui, 1984). After the deposition of widespread tephra, AT ash (30 cal kBP), its last magmatic activities produced three lava domes (Karasugasen, Misen and Sankoho) and corresponding pyroclastic flows (Sasaganaru, Misen and Shimizuhara) that were intermittently erupted (Miyake et al., 2001). Among the fall deposits, Kusatanihara pumice fall deposit (KsP: 21 cal kBP) is found in sediments from Lake Ichi-no-Megata (Okuno et al., 2011). Previous studies thought that Shimizuhara pyroclastic flow deposits which was generated following the KsP is the latest product of the volcano. In this study, we found Holocene tephra layers from Daisen volcano. The products of Holocene eruption from Daisen are lava dome located between Karasugasen and Misen domes, block-and-ash flows and associated ash-falls.

We obtained radiocarbon dates for the Holocene tephra using AMS through the Common-Use Facility Program of JAEA. The radiocarbon date of charcoal fragments in a sandy layer of pyroclastic flows/surges (alternation of volcanic silt and sand layers) is 3110±60 BP corresponding to ca. 3.35 cal kBP. The radiocarbon date of the humic soil immediately below the associated ash-falls that are distributed toward the east is 3290±40 BP. Although both dates are almost consistent with each other, the obtained age for soil layer is slightly old. This difference is attributed to soil reservoir effect.

Keywords: Daisen Volcano, Holocene, Lava dome, pyroclastic flow