

Temporal development of the volcanic fan at northern part of Rishiri Volcano, northern Hokkaido, Japan as determined by OSL dating

Reisuke Kondo[1]; Sumiko Tsukamoto[2]; Takeyuki Ueki[3]; Kunihiro Endo[1]; Tatsuhiko Sakamoto[4]; Yosuke Miyairi[5]

[1] Geosystem Sci., Nihon Univ.; [2] GGA-Institute; [3] GSJ/AIST; [4] IFREE, JAMSTEC; [5] MALT, Univ. Tokyo

The Rishiri volcano is located on Rishiri Island, northern Hokkaido. The surface of the volcano is largely covered by volcanic fans. The depositional surface of the volcanic fans can be divided into the young and old stages. The young stage volcanic fans are known to be the recent morphology, however, the age of the old stage fans is unknown.

The aim of this study is to apply the optically stimulated luminescence (OSL) dating method to the old stage volcanic fan sediments in northern part of Rishiri volcano. The samples for the OSL dating were collected from 5 sites, and fine grain quartz was extracted from the samples and was used for the OSL measurements.

The results indicate that the major unit of the old stage volcanic fan at northern part of Rishiri volcano deposited rapidly before the eruption of Nozuka lava flow (cf. 28 ka; Miura and Takaoka, 1993), and the upper unit deposited during the Last Glacial Maximum to 14 ka.