支笏カルデラ噴火堆積物の古地磁気学的測定：古地磁気永年変化にもとづく堆積物の時間スケールの推定

望月 伸竜 [1]; 穴井 千里 [2]; 治田 有里紗 [3]; 渋谷 秀敏 [4]
[1] 熊本大学; [2] 熊大・先端科学・地球環境; [3] 熊大・自然・地球; [4] 熊大・先端科学・地球環境

Paleomagnetic study on the Shikotsu pyroclastic deposits: Implications for the timescale of the pyroclastic deposits

Nobutatsu Mochizuki[1]; Chisato Anai[2]; Arisa Haruta[3]; Hidetoshi Shibuya[4]
[1] Kumamoto University; [2] Dep't Earth & Env., Kumamoto Univ; [3] Dep't Earth & Env., Kumamoto Univ.; [4] Dep't Earth & Env., Kumamoto Univ.

We reported paleomagnetic results of the pyroclastic deposits of the ca. 46 ka Shikotsu caldera-forming eruption. Geological observation on the pyroclastic deposits indicated that these volcanic deposits were classified into several units in the previous study. In order to estimate possible temporal gaps between these units, we conducted paleomagnetic measurements of the pyroclastic flow deposits. Non-welded pyroclastic flow deposits were collected using an improved sampling procedure; a cube guide was firstly fixed to the outcrop, and subsequently a cube was put into the outcrop trough the cube guide, and then the orientation of the cube was precisely measured on the front plane of the cube guide. Paleodirections determined from six sites on five units show a continuous movement of more than 15 degree in the equal area projection, which is thought to be the paleomagnetic secular variation curve of the period of a few to several hundred years occurred at ca. 46 ka. The paleomagnetic secular variation curve determined in this study contributes to estimating the timescale of the process of the Shikotsu caldera-forming eruption.