

Geochemical Characteristics of the Deposits from the Sector Collapse of Asama Volcano at 24 ka

Hidetsugu Yoshida[1]; Toshihiko Sugai[2]

[1] Natural Environmental Studies, Univ. of Tokyo; [2] Environmental Studies, KFS, UT

It is important to clarify the geochemical characteristics of the sector collapse deposits to discuss the debris transport processes adding to the lithofacies of the deposits and to correlate the deposits coupling with a tephrochronological method. We examined the bulk chemical composition of the deposits derived from the sector collapse of Asama volcano at 24 ka employing the energy-dispersive X-ray spectroscopic method. The extracted samples of the sector collapse deposits at several outcrops show almost the similar chemical composition, having no clear relation with location condition such as the distance from the origin. And the chemical composition of the blocks resembles those of the matrices. Judging from the concentration of SiO₂, MgO and the others, the deposits totally originate in the basaltic andesite which constitutes Kurofu-yama as the sediment source. These observations are consistent with the previous report for the deposits at Nakanojo and the northwestern corner of the Kanto Plain (Yoshida *et al.*, 2006, *The Quaternary Research*). Thus, the geochemical characteristics of the sector collapse deposits of Asama volcano support the conventional idea concerning the correlation of the deposits. The geochemical insight also indicates that most part of the deposits originates from the constructive materials of the volcanic edifice of Kurofu-yama, and distributed over the wide areas with the drastic change of the palaeogeography.