Correlation of the Middle Pleistocene Tephra beds in Central Japan by means of chemical analysis for amphibole

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The Middle Pleistocene of the Matsumoto and Ina basin and the area of eastern foot on the Yatsugatake volcano intercalates many tephra beds. The studied tephra beds are Kusarigawa Tephra in the Matsumoto basin; Higashiina Tephra, Toyooka Tephra, Hongo Tephra, Urusizawa Tephra, Seisenji 2 Tephra and Minamitajima Tephra in the Ina basin; Onnazawa Pumice 1, 2 in the area of eastern foot on the Yatsugatake volcano. In order to identify these tephra beds, determination of bulk and heavy mineral composition and chemical analysis for amphibole are performed.

This study presents the followings;Onnazawa Pumice2 can be correlated with Toyooka Tephra and Seisenji2 Tephra based on petrographic,mineralogic properties of tephra beds such as heavy mineral composition and chemical composition of amphibole and their modes of occurrence and stratigraphy.Charactaristics of tephra beds and their stratigraphy suggest that the source for Kusarigawa Tephra,Higashiina Tephra and Minamitajima Tephra is the Older Ontake Volcano.