Tephra from the Older Ontake volcano found in the southeastern foot of the Azumaya volcano

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The Middle Pleistocene Tsumagoi Group in the southeastern foot on the Azumaya volcano consists of Ooyokogawa Formation, Lower Manzagawa Formation, Upper Manzagawa Formation and Kaminokai Formation. Each Formation intercalates many tephra beds. The studied tephra beds are Kuri Pumice, ho Pumice and Kaminokai Pumice. And their modes of occurrence suggest that their source area is not Azumaya volcano. In order to identify these tephra beds, determination of heavy mineral composition and Curie temperature of Fe-Ti oxides and chemical analysis for amphibole are performed. The stratigraphic positions and petrographic and mineralogic properties of these three tephra are in good agreement with those of some tephra of Older Ontake volcano.

As a result of this study, Kuri pumice can be correlated with Satomiya Pumice and ho Pumice can be correlated with Kanbara Pmice2 or 3, based on petrographic and mineralogic properties of tephra beds such as heavy mineral composition, chemical composition of amphibole, and their stratigraphy. Charactaristics of tephra bed suggest that source area of Kaminokai Pumice is the Older Ontake Volcano.