

Two eruptive events occurred around 40 ka at the Akagi volcano in North Kanto, NE Japan:
Eruptions of the Akagi-Kanuma and Akagi-Shimizu Lithic Tephra

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Mt. Akagi, located in the northern Kanto, Northeast Japan, is a large Quaternary stratovolcano. The Mizunuma Chert Lapilli Pumice (CLP) dominated by accidental lithic fragments had been reported by Moriya (1968). The aim of this study is to clarify (i) distribution, (ii) stratigraphic position, (iii) sedimentary structure, (iv) petrological features, (v) mineralogical features, (vi) volume and (vii) eruption style, for CLP in more detail. We found new features of CLP then, the deposit was re-defined as the "Akagi Shimizu Lithic Tephra (Ag-SLT)". The Ag-SLT is distributed to eastern region from Mt. Akagi. The Ag-SLT exists on the Akagi Kanuma Pumice (Ag-KP), erupted at 44 ka. The Ag-SLT is composed of four units: 1L, 2P, 3P, 4L, with lithic fragments from Ashio Belt. Unit 1L has accretionary lapilli ($\phi 13$ mm) in its bottom layer. The yellow pumice clasts within the unit 2P has high SiO₂ (77.5 - 80.0 wt.% : in major elements chemical composition in volcanic glass), compared to that in Ag-KP (76.0 - 77.5 wt.%). Unit 3P is Plinian deposits with pumice and lapilli. Unit 4L is Phreatomagmatic eruption deposits. The Volume of Ag-SLT is about 6 km³ (VEI=5) as the same as the Hoei eruption of Mt. Fuji in 1707. The pumice within the Ag-SLT was formed with crystallization differentiation in magma reservoir. The interval of eruptions (dormant period) was suggested by the existence of the volcanic soil deposits (Tephric loess, so-called Loam) between Ag-KP and Ag-SLT.

Keywords: Mt. Akagi, Plinian eruption, lithic tephra, Ag-KP, Ag-SLT