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Stratigraphy and correlation of volcaniclastic material included in GS-KNJ-1 from Tokyo Lowland, Kanto Plain, central Japan

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The Tokyo Lowland, eastern part of Tokyo is located downstream region of Tone river drainage area. The alluvium of this region is widely distributed and stratigraphy of this alluvium is reviewed by Kimura et al., 2006 etc. The alluvium in this region is composed of sedimentation related sea level change. The chronology of the alluvium in this region is done by the radiocarbon dating.

However, tephrostratigraphy is not clarified by the volcanic ash or volcanic material.

The Tokyo Lowland is a possibility of influencing the sedimentation of the alluvium when volcaniclastic deposits are supplied from the hinterland in the Asama volcano in the northern part of the Kanto plain. Therefore, we examined tephrostratigraphy by the GS-KNJ-1 drilling core (Shinjuku area, Katsushika, Tokyo), and identified the key bed and considered about the influence on the sedimentation. We examined the mineral composition particularly about the volcanic materials. And as a result, ten layers that contained a lot of volcanic glass were able to be confirmed. Them, each depth is 7 m⁻¹⁴ m (about 3^{-3.5} ka), about 18 m (about 4 ka), 26⁻²⁹ m (about 5 ka), about 36 m (about 7 ka), about 43 m (about 10 ka), 46 m (about 11 ka), 46⁻⁵⁵ m (about 12⁻¹³ ka), about 54 m (⁻¹⁴ ka), about 57 m, and about 60 m.

Moreover, the sedimentation rate of this drilling core was increased at 5 ka corresponding to the content of the volcanic glass. Such a tendency is also recognized in the horizon about 13ka.

We will be examined the facies succession and change of pyroclastic content by the volcanic activity of the hinterland in another drilling core.