

Geochemical variation of tephra beds in the sedimentary core C9010E off the Boso Peninsula in Japan and their source volcanoes.

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We have been studying tephra beds intervening in the sedimentary core C9010E drilled at the site (water depth: 2027.25 m, core length: 190.38 m) of about 40 km south of Boso Peninsula by the *D/V Chikyu* in 2009. This sedimentary core has many tephra beds in sediment which were produced mainly from the Izu volcanic islands. The Izu volcanic islands is the north part of the Izu-Ogasawara islands is the island-arc system, resulting from the Pacific Plate subducting under the Philippine Sea Plate.

The major-element chemistry of volcanic glass shards in the fraction of 63-125 μm for all samples have been determined by EPMA (electron probe microanalyzer) of the Center for Advanced Marine Core Research, Kochi University.

Aoki et al. (2019) [1] showed the core C9010E included tephra from Mukaiyama tephra (AD886) to Akasakinomine tephra series at ca. 15-20 ka of the Niijima Volcano origin besides Kozushima Tenjyosan tephra (AD838) of the Kozushima Volcano origin, in the Izu volcanic islands. Furthermore, Aoki et al. (2020) [2] presented that the tephra bed of the 22 cm thickness at 32.965-33.185 m was correlated to Iz-Tos2 tephra which was provided from the unknown volcano which Takahashi et al. (in press) [3] estimated as the submarine source and the tephra which deposited like as the spot at the 41.21-41.23 m was correlated to Asama Itahana Kasshoku (Brown) tephra group which provided from Mt. Asama at the north Kanto District during 26-28 ka.

In the presentation, we will show the geochemical variation of volcanic glass shards in tephra beds we found in the upper part (~55 m) of the core and discuss the volcano as possible sources which are the Izu-Oshima Volcano, the Miyakejima Volcano, the Niijima Volcano, the Kozushima Volcano, the Oomurodashi submarine volcano and the submarine volcano expected to exist, in addition to widespread tephra provided from distal volcanoes.

References [1] Aoki et al. (2019), JpGU2019, HQR05-05, [2]Aoki, K. (2020) Japan Association for Quaternary Research, Programme and Abstracts 50, 5, [3] Takahashi et al.(in press)The Quaternary Research.