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Paleomagnetism on the Quaternary marine sediment at the DH-1 long-core site in the Korean continental margin of the East Sea

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A long core of 23.6 m was acquired in the Korean continental margin of the western East Sea. The core site of the DH-1 is located in the offshore of the Donghae City and the water depth is 357.8 m deep. In this area, the paleomagnetism and magnetostratigraphy were firstly reported using 420 samples collected from the long-core sediments. Based on the inclination distribution of the depositional remanent magnetization, the DH-1 core could be divided into two upper and lower units at the boundary of 1750 cm below seafloor. The upper unit is characterized by a positive polarity, whereas the lower unit by a negative polarity. The boundary of the upper and lower units was interpreted as the Brunhes-Matuyama boundary (778 ka). The chemical components of tephra layer at 2014 cm below seafloor belong to alkaline series, plotted between the tephra components of the Mount Baekdu and Ulleung Island.

Key words: magnetostratigraphy, Brunhes-Matuyama boundary, tephra, East Sea

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