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Paleomagnetic study of on-shore drilled core samples (ANA-2) from the Ananai Formation

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Comparison was made between discrete samples and U-channel samples collected from the identical core samples ANA-2, which were recovered at the southwestern coast of the Muroto peninsula. These cores consist of shallow marine sediments (mainly silty sands) of the Ananai Formation of Pliocene age. Length of ANA-2 is 86 m long, and average sedimentation rate was estimated as 8.86 cm/kyr (Kondo et al., 2006). Paleomagnetic study of U-channel samples of the core has been carried out by Shimono et al. (2008). We report here the results of 10 cc discrete samples collected along those U-channels.
Remanent magnetization of the sample was measured with a pass-through DC-SQUIDS magnetometer (2G 760SRM) at Kochi Core Center. Stepwise AF demagnetization up to 60mT was performed and the results were analyzed with Ziderveld diagram. Direction of the stable component was estimated and the maximum angular deviation (MAD) was calculated according to the method of Kirschvink (1980). Remanence component was only estimated above 15 mT and the component of large MAD (>15°) was discarded. We found 1914 stable data out of 2579 discrete samples after the AF demagnetization. Our results basically resemble with that of the U-channels. Seven horizons of polarity transition were determined, although there are significant differences between the results of Shimomo et al. (2008).

Keywords: paleomagnetism, on-shore core, shallow marine sediments