

Paleointensity variation and fine-scale tectonics at East Pacific Rise 18S derived from deep-tow magnetic survey data

Michiko Yamamoto[1], Nobukazu Seama[2], Nobuhiro Isezaki[3]

[1] Sci. & Tech., Chiba Univ., [2] Graduate School of Sci.and Tech., Chiba Univ., [3] Dep. Earth Sci,Chiba Univ.

Magnetization distribution derived from new deep-tow three component magnetometer data can be regarded as the pattern of paleointensity records of the geomagnetic field from sediment cores. Therefore, we conclude that tiny wiggle are most likely caused by intensity variation in paleomagnetic field, and it can play a role of time scale at least this fast spreading area. Due to establishment of paleointensity variation as standard curve and our new original method for analysis, we can determine detail crustal age in Brunhes and spreading rate at EPR 17.5S and 18.5S. It reveals asymmetry on spreading rate, which is contrary to symmetry of traverse section shape of the ridge. These differences imply that the origin of ridge morphology has no relation to crustal age.