

Orbital Influences on Geomagnetic field in the Matuyama and the Gauss Chron at IODP site U1314 in the North Atlantic

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We have investigated the detailed geomagnetic field variation during the Matuyama and the Gauss Chron from a sediment core (IODP Site U1314) with high sedimentation rate (≥ 10 cm/kyr) and good age control. Characteristic remanent magnetization directions were well resolved by stepwise alternating field demagnetization. As a proxy of relative paleointensity, natural remanent magnetization (NRM) normalized by anhysteretic remanent magnetization (ARM) was used after testing that the influence of magnetic interaction in ARM is negligible. We discuss the variation of the geomagnetic field with the period close to those of the Earth's orbital elements.

Keywords: geomagnetic excursion, Milankovitch cycle