

## 上総層群の Matuyama-Brunhes 地磁気逆転：千年スケールの特徴

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### Millennial scale features of the Matuyama-Brunhes transition from the Kazusa Group, central Japan

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A 54-m oriented core of the Kokumoto Formation in the Kazusa Group drilled along the Yoro River at Tabuchi, Chiba Prefecture reveals detailed features of the Matuyama-Brunhes (MB) transition. The core mostly consists of silts. One meter long u-channel samples were prepared from 3 to 52 m depth. Discrete samples were also collected at 2 cm to 50 cm intervals. Magnetizations were measured every 1 cm using a 2G cryogenic magnetometer for u-channel samples, subjected to alternating field demagnetizations (AFD), while both AFD and thermal demagnetization was used for discrete samples. Preliminary oxygen isotope data on planktonic foraminifera (*Globorotalia inflata*) suggest that the main MB polarity boundary, just underlain by the Byakubi-E tephra layer, lies between the sea-level highstand of marine isotope stage (MIS) 19.3 and the MIS 19.2 lowstand. Characteristic remanent magnetizations of u-channel samples calculated by principal component analysis reveal a multiple rapid reversal interval (MRI), a very important feature characteristic of the final stage of the MB transition, which lies between depths correlated with highstand 19.3 and lowstand 19.2. The MRI spans about 1.7 m in depth, during which the virtual geomagnetic pole crossed the geographic equator at least 11 times. An astronomical age model suggests that the MRI was ca 2 kyr in duration, predating 776 ka and postdating 779 ka. The relative paleointensity proxies from the core show quite similar variations with the global paleointensity stack Sint-800, especially the post-reversal intensity recovery from both records exhibits a high degree agreement. The MRI just coincides with the lowest intensity interval of Sint-800, and can be correlated with similar intervals observed in the Osaka Group, Chinese loess-paleosols, and deep-sea sediments. The MRI may be a useful tool for correlation in high-resolution magneto-climatostratigraphy.