Geophysical Research Abstracts
Vol. 20, EGU2018-2883, 2018
EGU General Assembly 2018

Magnetostratigraphy of an early Miocene sedimentary sequence in central Japan: implication for the age of the N7/N8 (M4/M5) planktonic foraminiferal zonal boundary

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We present new paleomagnetic and rock magnetic data from a sedimentary sequence of the Miocene Ichishi Group in central Japan. This study was performed in order to correlate the N7/N8 (M4/M5) planktonic foraminiferal zonal boundary, which has successfully been detected in the same sequence, to the magnetostratigraphy. We collected oriented cores at 33 sites on a measured stratigraphic section. Analysis of stepwise demagnetization data allow us to determine reliable site-mean characteristic remanent magnetization (ChRM) directions for 18 sites that display a reverse-normal-reverse (R-N-R) stratigraphic change of magnetic polarity. Our results show that the N7/N8 zonal boundary is located within the upper reverse polarity zone, and this magneto-biostratigraphic correlation is consistent with GTS2004 rather than GTS2012.