

Paleomagnetic and rock magnetic properties of three marine cores off the Kii peninsula

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Paleomagnetic and rock magnetic study were carried out for three piston cores recovered from three sites off the Kii peninsula during the cruise of R/V Tansei in 2007. The piston cores, EOS-1PC and SNT-1PC, were collected at ocean ward sites of the Nankai Trough at 3151 m and 3967 m in water depth, respectively. Whereas core KUT-1PC was recovered at land ward site where water depth is 2091 m. The length of recovered sediments are 450 cm for EOS-1PC, 108 cm for SNT-1PC, and 514 cm for KUT-1PC. We sub-sampled 503 discrete samples using 7-cc plastic cube from these three cores.

NRM of the samples were measured along with progressive AF demagnetization. Low-field susceptibility (χ), anhysteretic remanent magnetization (ARM), isothermal remanent magnetization (SIRM and IRM(-0.3T)) were also measured. Mean inclination values agree with that of expected one (52.5 degrees) after AF demagnetization for EOS-1PC. We are sure that the age of this core resides in Brunhes Chron. Concentration dependent rock magnetic parameters (χ , χ -arm and SIRM) generally feature very stable throughout the core. However, the rock magnetic parameters show prominent peaks at some horizons. Some of the horizons are also lithologically distinguishable with the most of core sediments. We will discuss about these peaks in detail