

Depositional Cycles and Relative Sea-level Changes in the Mio-Pliocene Sequence around the SW Margin of Sendai Plain

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Relative Sea-level Changes during ca. 14.5 Ma to 3 Ma was reconstructed from the detailed analyses on the depositional cycles of shelf and coastal lowland sequence distributed around the SW Sendai Plain, NE Japan.

The sequence consists of eleven depositional cycles, each of them has been deposited during about 0.3 to 0.5 million years. These cycles correspond to 4 th-order cycle of Veil et al. (1991), and comprise three larger cycles that are formed before ca. 10 Ma, 9 Ma - 8 Ma, and after 6.5 Ma, respectively. These longer cycles corresponds to 3 rd-order cycle of Veil et al. (1991). Beginning of the 3 rd-order cycle around 10 Ma probably reflects the start of strong E-W compression of the NE Japan Arc (Fujiwara et al., 2003 and Nakajima et al., 2002).

Fujiwara et al. (2003) Abst. 2003 Jap. Earth and Planetary Sci. Joint Meet., G015-004.

Nakajima et al. (2002) Abst. 109 th Ann. Meet. Geol. Soc. Japan, 12.