房総半島マツヤマ－ブリュンヌ地磁気逆転境界における高解像度珪藻化石群集解析

Detailed variations in diatom assemblages across the Matuyama-Brunhes magnetic polarity boundary from a core collected adjacent to the Chiba section, central Japan

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We conducted diatom analysis of a core named TB2 of the Kokumoto Formation of the Kazusa Group drilled near the Chiba section, a candidate for the Early to Middle Pleistocene boundary. 71 taxa of diatoms were identified. The number of total valves is controlled by coastal species such as *Paralia sulcata*, *Cyclotella striata* + *C. stylorum*, and *Actinoptychus senarius*. The coastal species show variations well correlated with the ratio of Ca/Ti, a biological production proxy, and planktonic $\delta^{18}O$, representing the highest peak at 44.5-33.9m and the second one at 19.9-14.8m. The former is correlated with highstand MIS 19.3 and the latter with highstand MIS 19.1. This result suggests not only the biogenic production rate but the production of coastal diatom species increases as the sea-level rise. Cold diatom species of the Oyashio Current are dominant below a depth of 25 m, and warm species of the Kuroshio Current become dominant above it. This suggests occurrence of a large current system change during MIS 19.

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