

Litho-, bio-, and C, Sr isotope stratigraphy of the Middle Permian mid-Panthalassan paleo-atoll carbonates

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The Wordian-Capitanian (Middle-Upper Guadalupian, Permian) Iwato Formation in East Kyushu is composed of shallow marine carbonates in an accreted paleo-atoll complex primarily developed on a paleo-seamount in the low-latitude domain (12 degree S) of mid-Panthalassa. By analyzing the Wordian interval, we could newly reconstruct a continuous C-isotope profile of the upper half of Guadalupian, and discuss the environmental changes in the low-latitude mid-superocean. We confirmed that the high C isotope interval (> 5 permil) had started already in the Wordian. The onset of the Kamura cooling event likely started much earlier than previously believed, and affected the diversity of the Guadalupian biota.

Keywords: Permian, Iwato Formation, paleo-seamount, Panthalassa, Kamura event, fusuline