

南中国四川省中部の中部ペルム系石灰岩の岩相・生・C-Sr同位体層序
Litho-, bio-, and C-Sr isotope stratigraphy of the Middle Permian carbonates in central
Sichuan, South China

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We analyzed the stratigraphy of the Wordian to Capitanian (Middle-Upper Guadalupian, Permian) shallow marine carbonate (Maokou Formation) in the Ebian area of central Sichuan, South China, using samples from outcrop and drilled core. Fusulines and conodonts confirmed that the studied section ranges from lower Wordian to mid-Capitanian. Owing to depositional gap beneath the limestone conglomerate, the horizon of the end-Guadalupian extinction is missing. Nonetheless, we detected a nearly 20 m-thick interval characterized by extremely high positive values of stable carbon isotope ratio of carbonate (> 5 permil) in the Capitanian. This is the first confirmation of the similar signal proposed from paleo-atoll carbonates in Japan (Kamura event). This suggests the appearance of cool climate in the later half of the Capitanian on a global scale, in good accordance with the global sea-level drop and ubiquitous hiatus on the top the Maokou Fm throughout South China (except the Penglaitan section).

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