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Uppermost Permian to Upper Triassic conodont zonation and carbonate carbon isotopes from Kamura section, Southwest Japan

Laishi Zhao[1], Feihong Ye[1], Lei Zhang[1], Zhong-Qiang Chen [2], Shijie Liu[1], Chen Han[1], Hongxing Wang[1], Zhengyi Lv[1], Thomas J. Algeo[1]

[1] State Key Laboratory of Geological Processes and Mineral Resources, China University of Geosciences, Wuhan 430074, China
Corresponding author (L. Zhao): lszhao@cug.edu.cn
[2] State Key Laboratory of Biogeology and Environmental Geology, China University of Geosciences, Wuhan, 430074, China

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A relatively continuous Uppermost Permian to Upper Triassic succession is exposed at the Kamura section in the north of Takachiho-cho, Southwest Japan. Thousands of conodont elements were obtained and carbonate carbon isotopes were analyzed, thus, making it possible to build a relatively complete Triassic time framework in the Panthalassa Ocean. A total of 10 conodont zones are recognized from uppermost Changhsingian to Norian. They are *Hindeodus Parvus*, *Neospathodus dieneri*, *Neospathodus waageni* and *Neogondolella regalis* Zones in the Early Triassic. *Chiosella timorensis*, *Neospathodus cristagelli* and *Paragondolella bulgarica* Zones in the Middle Triassic. Late Triassic conodont Zones are *E. bidentata*, *E. triangalaris* and *P. excelsa*. The Permian-Triassic boundary was placed at 0.3m above the Mitai Formation, based on the first occurrence datum (FAD) of *Hindeodus parvus*. The FAD of *Chiosella timorensis* defined the Olenekian-Anisian boundary at ~17m above the Mitai Formation where a gap exists that probably spread the whole Spathian. Several typical negative and positive shifts (N1, P1, N2, P2, N3, P4) of carbon isotopes were also recognized at Kamura, which help our correlations.