

## Late Triassic pelagic carbonate sedimentation in Tethys and Panthalassa Oceans

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The paper described the stratigraphy and microscopic characteristics of the Upper Triassic siliceous micrite of southwest Japan, considered as having accumulated on the lower flank of a seamount in the Panthalassa Ocean. Biotic association and lithologic properties of the siliceous micrite are compared with those of Upper Triassic deep-water micritic limestone widespread in a pelagic realm of the Tethys Ocean. This correlation permits the author to hypothesize that an enormous production and accumulation of calcareous plankton occurred in an open-ocean realm both of the Panthalassa and Tethys Oceans in Late Triassic time.

Investigated was an upper Carnian to lower Norian siliceous micrite and radiolarian chert succession of the Sambosan accretionary complex, defined as a Late Jurassic to Early Cretaceous subduction-generated accretionary complex of southwest Japan. The examined succession comprises a lower radiolarian chert unit (ca. 30 m thick), middle siliceous micrite unit (ca. 30 m) with chert nodules, and upper radiolarian chert unit (ca. 15 m) with minor siliceous micrite. The siliceous micrite comprises radiolarian remains and filamentous shells of thin-shelled bivalves disseminated in a micritic matrix. The scanning electron microscopic examination recognized small (5-11 micrometer), globular calcitic particles embedded in a micritic matrix. These particles have an affinity most likely to calcareous nannoplankton described from Upper Triassic deep-water micritic limestone in Northern Alps, India, and northwestern Australia. Occurrence of calcareous nannoplanktonic forms from the Sambosan siliceous micrite indicates that significant planktogenic carbonate accumulation occurred in Panthalassa Ocean as well as Tethys Ocean. The flourish of calcareous nannoplankton has significantly changed pelagic sedimentation and the marine carbonate system in late Carnian to early Norian time.