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The 2000 years ago tsunami event in the Kaniga-ike pond innermost the Tosa Bay

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Nankai earthquakes are plate boundary earthquakes associated with the Nankai subduction zone that have been recorded in historical documents a total of nine times since the Tenmu Nankai earthquake in A.D. 684. In order to reveal pre-historical evidence of Nankai earthquakes, we investigated core sediments from ponds and lakes on the coast of southwestern Japanese Islands along the Nankai Trough.

We collected 34 vibrocore samples from the Kaniga-ike pond which located in the center of Tosa Bay area, Shikoku Island. Stratigraphical study and radiocarbon dating of these samples revealed that Kaniga-ike pond recorded 6 tsunami events during last 2000 yeares. Last 4 events correlated with AD 1852 Ansei Earthquake, AD 1707 Hoei Earthquake, AD 1361 Shohei Earthquake or AD 1099 Kowa Earthquake and AD 684 Tenmu Earthquake respectively. Lower two events occurred in AD 300~600 and about 2000 years ago. The 2000 years ago event formed thick tsunami sequence. Tsunami of AD 1707 Hoei Earthquake recorded over 10m height at the Usa village near by Kaniga-ike pond. The 2000 years ago tsunami sediments is thicker than Hoei tsunami sediments.

Keywords: Nankai earthquake, tsunami sediment