

Climate changes during the past 130 kyr based on biogenic silica record in Takashimaoki

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Lake Biwa, located at the center of Japan, has a continuous sediment record during the last ca. 430,000 years. We restored paleoclimatic changes during the last 130,000 years around Lake Biwa based on the biogenic silica content (BSC) profile obtained through molybdenum yellow method. BSC record of Takashima-oki core shows similar variability of that of Marine Isotope record in addition to cold events of Heinrich events. Result of frequency analysis shows similar periodicity of D-O events and Milankovitch cycle.

Relatively warm stages in the profile of Takashima-oki core coincide fairly well with those observed in Japan Sea sediment as dark layers, in addition to those off Choshi of the Pacific Ocean. These results imply that paleoclimate changes around Lake Biwa was strongly controlled by the sea surface temperature changes around Japanese islands.

Keywords: Lake Biwa, BSC