$\delta^{13}C$ records of Diplopten e in the California sediments over the past 25 kyr

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California margin sediments (ODP Leg 167, Hole 1017 E, over 130 kyrs) in the Northern Pacific Ocean have been researched for understanding paleo-environmental changes. We examined the vertical distribution of hopanes, especially diploptene, in the sediments over 25 kyrs.

The results in this study shows that stable carbon isotopic ($\delta^{13}C$) compositions of diploptene depleted (*c.a.* -38 ~ -40 ‰) at the B/A period (Fig.1). This result suggests that there were two groups of diploptene with different $\delta^{13}C$ values in the sediments and the diploptene in the B/A period had been originated from chemotroph bacteria at anoxic enviroments[1]. Therefore this indicates that an anoxic bottom water condition was developed during the B/A period, which might be caused by deglaciation[2] and current variation[3].

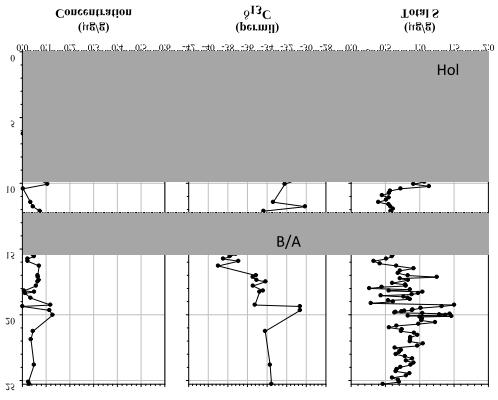

Figure.1 Vertical profiles of diploptene, the $\delta^{13}C$ value and total sulfur in the upper part of the sediment.

[1] Freeman *et al* (1994) *Org Geochem* **21**, 629-644. [2] Moore *et al* (2008) *U.S. Geological Survey* **2945**. [3] Behl and Kennett. (1996) *Nature* **379**, 243-246.