

## Unusual distribution of lycopane in the surface sediment from Japan Sea collected by the MD179 Cruise

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The piston core samples of MD179-3312 from Japan Sea were geochemically analyzed. These samples were collected approximately 700 cm from the surface, and contain darkly colored layers. The lower dark layer, which was deposited in a strong anoxic bottom water environment, did not show a high lycopane/n-C31 ratio. In contrast, the upper dark layer, which was deposited in a weak anoxic bottom environment, had a high lycopane/n-C31 ratio. Although the lycopane/n-C31 ratio was not useful proxy to assess palaeoanoxicity, it did indicate surface productivity of some phytoplankton in the sediment in Japan Sea. The depth profile of n-C37 alkadiene was similar to the depth profile of the lycopane/n-C31 ratio. This study was supported by MH21, Research Consortium for Methane Hydrate Resources in Japan.

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