

Oxygen and carbon isotope records of foraminifera and depositional age from HR14-RC1408 core, Mogami Trough

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The eustatic sea level changes in the Late Quaternary have strongly affected the hydrography and environment of Japan Sea because of its geographical condition. Stable isotopes of foraminifera have played important roles in previous paleoceanographic studies of the Japan Sea. (Oba *et al.*, 1991; Ishihama *et al.*, 2014). For example during the Last Glacial Maximum (LGM), freshwater input to the Japan Sea has been assumed to cause the large negative excursion in $d^{18}O$ of planktonic foraminifera.

We analyzed oxygen and carbon isotope of both planktonic and benthic foraminifera with 1 core from Mogami Trough (HR14-RC1408: water depth approximately 830 m, core length 48m). Planktonic and benthic foraminifera from the >150 micrometer fraction were hand-picked, reacted with phosphoric acid at 90 degrees C and analyzed by a GV IsoPrime mass spectrometer at the Center for Advanced Marine Core Research (CMCR), Kochi University. HR14-RC1408 core can be correlated Marine Isotope Stage (MIS) 1 to 9 from $d^{18}O$ of planktonic foraminifera. Negative excursions in $d^{18}O$ of planktonic foraminifera and the existence of *Globigerinoides ruber*, *Neogloboquadrina incompta* (dextral) and *Globigerina bulloides* (thin-walled form) in MIS 1, 5e, and 9 suggest the influx of Tsushima Warm Current. The large negative excursions in $d^{18}O$ of planktonic foraminifera implying freshwater input are recognized during the glacial maximum periods in MIS 2 and 6.

This research is a part of METI's project entitled "FY2014 Promoting research and development on methane hydrate". Isotopic analyses were performed under the cooperative research program of Center for Advanced Marine Core Research (CMCR), Kochi University (Accept No. 14A010, 14B008).

Keywords: Japan Sea, planktonic foraminifera, benthic foraminifera, oxygen isotope, carbon isotope, gas hydrate