

Improved Arctic Ocean Oxygen Isotope Stratigraphy: Results from the Yermak Plateau (ODP Leg 151 : Site 910A)

남승일¹ · Jochen Knies² · dreas Mackensen³
· Jens Matthiessen³ · Christoph Vogt⁴

¹한국지질자원연구원 석유해저연구부

²Survey of Norway, N-7491 Trondheim, Norway

³Alfred-Wegener-Institute for Polar & Marine Research, D-27568
Bremerhaven, Germany

⁴ZEKAM, University of Bremen, D-28359 Bremen, Germany

As an important contribution to the planned drilling (IODP) in the central part of the Arctic Ocean, we are currently working on a refined chronostratigraphy for Marine Isotope Stage (MIS) 16 to MIS 2 on the exciting material from ODP Site 910A (Leg 151) which has been recovered from the marginal Eastern Arctic Ocean (the Yermak Plateau - the Atlantic/Arctic Ocean Gateway). Several stratigraphic age fix-points support the interpretation of the stable oxygen isotope record of planktonic foraminifer *N. pachyderma* sin. that is punctuated by several short-term meltwater events. We believe that our new record will serve as "the important correlating tool for establishing a basic stratigraphy for the Quaternary Arctic Ocean as well as for generating high-resolution paleoenvironmental reconstructions in the central Arctic Ocean. Furthermore, our study will provide reference stratigraphic data sets for interpreting the micropaleontological, sedimentological and organic / inorganic - geochemical proxies of the new boreholes that will be drilled on the Lomonosov Ridge (Central Arctic Ocean) in the frame of the "Arctic Coring Expedition" (ACEX, IODP) in summer 2004.