

# Abstract Preview - Step 3/4

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Session: EN-6 Reconstructing past environmental change in the Polar Regions

Polar program: None

**Title: Preliminary study on the Geochemistry and Diatom of core sediments in Ross Sea**

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**Text:** The paleoenvironments, XRF, biostratigraphy, and age dating of the piston cores (RS14-GC04) collected from Ross sea Strait, Antarctica are studied by the micropaleontological studies based on diatoms.

As a result of dating, the age of the core represents about 6,000 years. The variation of sediment core including diatoms were analyzed from the drilled core which was obtained from the Ross sea for the purpose of reconstruction of the environmental variations during the Holocene.

A total of 25 species and varieties belonging to 58 genera are identified from the Core RS14-GC04. The range of diatom valves per gram of dry sediment was approximately 0 to 26.3\* 10<sup>7</sup>/g in quantitative diatom assemblage analysis.

The diatom assemblages from RS14-GC04 are dominated by *Fragilariopsis curta*, *Thalassiosira antarctica* cold type, *Eucampia Antarctica* var. *recta*. A minor species appeared as *F. obliquecostata*, *F. turgiduloide*, *proboscia alata*, *Rhizosoleni styliformis* and *Stellarima microtrias*.

Ba is a good correlation with TOC, suggesting their relation to biogenic debris, precipitation from seawater, or hydrothermal input.

**Preferred Presentation Type: Oral Presentation**

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