

TRACES & TRACERS



Liège, Belgium
2nd – 6th May 2011

Tracers of physical and biogeochemical processes, past changes and ongoing anthropogenic impacts

Tracers such as **Trace Elements and Isotopes (TEI)** play an important role in oceanography as tools to (1) describe physical processes, (2) quantify production and carbon export, energy transfer, and trophic pathways, (3) understand the role of limiting micronutrients regulating ecosystem production and structure, (4) reconstruct past ocean conditions, (5) study transport and fate of anthropogenic inputs and pollutants. These thematics are investigated in the framework of several international projects: **GEOTRACES**, **SOLAS**, **IMBER**, among others. Section cruises and process studies have taken place in polar oceans during the **International Polar Year (2007-2008)** and are now underway in other oceans.

The **43rd International Liège Colloquium on Ocean Dynamics** will investigate new developments and insights related to tracers and proxies (from temperature and salinity to gases and isotopes) with a particular attention on the use of TEI as tracers.

More specifically, the following topics will be covered:

- The use of tracers to understand and quantify physical processes
- Factors controlling the sources, sinks and internal cycling of TEIs, and their sensitivity to environmental changes
- The use of tracers and TEI as tools to investigate the cycles of carbon and macro and micro-nutrients
- Trace elements in ecological and biogeochemical processes
- Tracers of anthropogenic impact and pollutants
- Progress in TEI measurements
- Tracers as proxies for paleo-environmental conditions
- Modelling and laboratory studies of TEI and tracers

Special sessions: **BONUS-GoodHope project, International Polar Year, IMBER.**

Abstracts dealing with the above-described subject are welcome (**deadline 16/01/2011**). Selected papers will be published in a special issue of Journal of Marine Systems.

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