



2015 Aquatic Sciences Meeting

Aquatic Sciences: Global And Regional Perspectives — North Meets South

22-27 February 2015 — Granada, Spain

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ABSTRACT

ASSESSING SOURCES AND SINKS OF REFRACTORY DISSOLVED ORGANIC CARBON IN THE DEEP ATLANTIC OCEAN

Refractory dissolved organic carbon (RDOC), with lifetimes of thousands of years, is the largest fraction of reduced carbon in the ocean, with a global stock of ca. 630 Pg C. Significant variations in the size of this pool could lead to significant changes in atmospheric CO₂ concentrations, with implications for climate. Biological processes in the euphotic zone are thought to be the main source of RDOC while sink mechanisms have been hypothesized but not identified. Identifying the sinks may be aided by determining sink locations in the deep ocean. An optimum multiparameter (OMP) analysis is set with thermohaline and chemical data from 5 recent CLIVAR Repeat Hydrography cruises throughout the Atlantic Ocean in order to objectively separate the effect of water mass mixing from non-conservative processes on the DOC variability, directly assessing sources and sinks of RDOC in the Atlantic Ocean.

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DETAILS

Oral presentation

Session #:008

Date: 2/25/2015

Time: 08:30

Location: Auditorium Manuel de Falla (Floor 1)

Presentation is given by student: No



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