This report covers activities led by Per Andersson. David Turner’s work has focused on SCOR WG145, for which a separate report is included as Appendix I.

New scientific results

• Preliminary data on 232Th, 230Th and 231Pa from the Arctic Ocean (R/V Polarstern 2015 cruise ARK XXIX/3, PS94) are assembled and quality checked during 2016. Preliminary sections are shown at the end of the report on courtesy by Sandra Gdaniec.

Intercalibration

• Participated in the GEOTRACES Si isotope intercalibration led by Mark Brzezinski UC Santa Barbara, USA, and during 2016 the results were evaluated and published.

New publications (published or in press)


PhD theses

• Sandra Gdaniec, PhD student at NRM/SU and also working at LSCE in Paris submitted her licentiate-thesis in April 2017, title of the lic-thesis is “231Pa and Th-isotopes as tracers of deep water ventilation and particle scavenging in the Mediterranean Sea”. To be defended in May 2017.

Meetings

• Workshop in Biogeochemical cycling of trace elements within the ocean 1 – 4 August 2016, Lamont-Doherty Earth Observatory, Palisades, NY, USA. Sandra Gdaniec, PhD-student participated in the workshop at LDEO in New York presenting her project: “Total and particulate 231Pa, 230Th and 232Th distributions in the Mediterranean Sea”.

Abstract

Outreach activities

- Sandra Gdaniec participation on R/V Polarstern Arctic GEOTRACES cruise in 2015 is be part of an exhibition at the Swedish Museum of Natural History showing different types of research expeditions both modern and in the past. The GEOTRACES expedition is a example of a modern expedition to the Polar Sea and opened in November, 2016.

http://www.nrm.se/en/besokmuseet/utstallningar/expeditioner.9003720.html

Preliminary data on $^{232}$Th, $^{230}$Th and $^{231}$Pa from the Barents Sea-Nansen Basin, Arctic Ocean (R/V Polarstern 2015 cruise ARK XXIX/3, PS94)

(Unpublished, preliminary data from Sandra Gdaniec)

Submitted by David Turner (david.turner@marine.gu.se).
New publications (published or in press)


New projects and/or funding

- A NERC/NSF project “A Thermodynamic Chemical Speciation Model for the Oceans, Seas, and Estuaries has been funded for 3 years with expected start date 1 July 2017 (PI:s are Simon Clegg, Andrew Dickson and Heather Benway). This project has been designed to provide the research effort needed to address the WG objectives. The WG will also be supported by complementary experimental work carried out at GEOMAR and at the national standards laboratories in France, Germany and Japan.

Meetings

- The WG has not met during this period since the necessary research funding was in doubt before the decision on the NERC/NSF grant. The next meeting will take place in conjunction with Ocean Sciences 2018.

Outreach activities

- The WG is gathering information on user needs for chemical speciation models. A Survey Monkey questionnaire for academic users has been completed and gave valuable information. A complementary Survey Monkey questionnaire for users outside the academic sector has been generated and is now being circulated. Many thanks to Ed Urban for help with these surveys. A publication presenting the two survey results is planned.