**New results**

Vertical profiles for Cu, Cd, Co, Fe, Mn and Zn were produced for the Southern Atlantic (Roychoudhury et al. unpublished)

**New publications**


Meetings


Cruises

• SANAE 55 (Southern Ocean physics and biogeochemistry) cruise was undertaken along the BONUS-GOODHOPE line in the Southern Ocean to support the following projects (Dec 2014 – Feb2015):
  1. Seasonal Cycle of Carbon in Southern Ocean – SNA2011112600001
  2. Fe and light limitation in Southern Ocean phytoplankton – SNA2011120600005
  3. Bioactive trace elements in Southern Ocean – SNA2011110100001
  4. Stratification dynamics in the Southern Ocean mixed layer: a high resolution approach – YREF 000005441
  5. Southern Ocean Phytoplankton Adaption to mimicked future changes in light and iron availability - Molecular bases and modelling – SANCOOP 234229
  6. Bio-optics - SNA2011120800004

During this cruise, samples for GEOTRACES process study SOSCEx were also collected. As per SOSCEx III objectives, multiple occupations of the same two stations were carried out in the winter early, mid and late summer that aim to resolve the seasonal evolution of the Fe profile/ferricline in the SAZ.

New funding

• Fietz, S and Roychoudhury AN (2016) Southern Ocean Ecosystem response to dust input, NRF Competitive Rated Researcher Grant R 1,277,000
• Roychoudhury AN (2015) ICP-MS mass spectrometer for ultra-trace metal analysis. National Equipment Program, NRF, R 2,699,000
• Roychoudhury AN (2015-2017) Speciation and interaction of iron nanoparticles in Southern Ocean, SANAP, R 1,353,500

• Roychoudhury AN (2014 – 2016) Iron nanoparticles in environment, NRF Competitive Rated Researcher Grant, R 1,427,220

• Fietz, S and Roychoudhury, AN (2014-2016) Southern Ocean Phytoplankton adaption to mimicked future changes in light and iron availability – molecular bases and modeling, South Africa – Norway bilateral grant, R 2,421,712 + NOK 1,453,027

Other activities (e.g., acquisition of new sampling systems)

A pico-Fast® system acquired last year for pre-concentration of sea-water samples for trace elemental analysis using ICP-MS is functioning successfully. SAFe standard and other internal standards have been analyzed repeatedly and data for Co, Cu, Zn, Cd, Mn and Fe has been sent for comparison of consensus values.

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