Belgium

Meetings

- ASLO 2013, New Orleans:
  de Brauwere A. et al., Putting the pieces together: A multi-tracer model to quantitatively identify the major processes related to the fertilized bloom on the Kerguelen Plateau (Southern Ocean).

- GRC on polar oceans, Ventura, USA, March 2013:
  Nitrogen isotopic distribution in Antarctic Sea Ice; poster by F. Fripiat.

- The 45th International Liège colloquium: Primary production in the ocean: From the synoptic to the global scale:
  Cavagna A.-J. and F. Dehairs, Primary production and potential for carbon export in naturally iron-fertilized waters in the Southern Ocean.

- Goldschmidt Conference, Montreal, June 2012: Session on biogeochemical cycling of nutrients and metals in high latitude marine environments.
  Nitrate ($\delta^{15}$N) isotopic distribution in Antarctic Sea Ice; poster by F. Fripiat.

- AGU fall meeting 2012, San Francisco: Session on Source, Sinks, and Speciation of marine micronutrient trace elements.
  A. de Brauwere “Putting the pieces together: A multi-tracer model to quantitatively identify the major processes related to the fertilized bloom on the Kerguelen Plateau (Southern Ocean), poster.

- ASLO 2012, Lake Biwa (July 8-13):

- Symposium on Iron in the Oceans, 4 October 2012, Texel:

- GEOTRACES Workshop – Stable isotopes of biologically important trace metals. 13-14 September 2012, London, UK:
• SOLAS Open Science Conference, 7-10 May 2012, Cle Elum, WA, USA: Schoemann, V., Lannuzel, D., Delille, B., de Baar, H., Tison, J.-L. Sea ice as a source of bioavailable iron. Invited plenary talk.

Cruises
• Antarctic Winter Ecosystem & Climate Study ANT XXIX/6 (AWECS): 8 Jun-12 Aug 2013, Weddell Sea sector, RV Polarstern; trace metals (e.g. Fe, Cu, Zn, Mn, Cd) and isotopes (Fe, Zn) in sea ice, brines and seawater.
• Sea Ice Physics and Ecosystem eXperiment (SIPEX 2): Sep. - Nov. 2012; Australian-Antarctic Basin; R/V Aurora Australis; C, N uptake; nitrate isotopic composition
• European Universities and Research On board Polarstern in the Atlantic (EUROPA); Oct.-Nov. 2012; Bremerhaven – Cape Town; R/V Polarstern (ANT 29/1): C, N uptake; N2 fixation; nitrate isotopic composition
• YROSIAE (Scott Base, Antarctica), Sea Ice in the McMurdo Sound, Nov. 2011-Dec. 2012: δ15N (particulate nitrogen, total dissolvable nitrogen, ammonium, nitrate), δ18O (nitrate), δ30Si (biogenic silica, dissolved silicon), dissolved and particulate trace metals concentrations (e.g. Fe, Zn, Cu, Mn) and isotopic composition (δ56Fe and δ66Zn).
• IceArc ARK XXVII/3 on board the RV Polarstern in central Arctic. 2 Aug-8 Oct 2012: dissolved and particulate trace metals concentrations (e.g. Fe, Zn, Cu, Mn) isotopic composition (δ56Fe and δ66Zn).
• ICELIPIDS (Dumont D’Urville, Antarctica), Sea Ice in Terre Adélie, Apr. -Nov. 2011: δ15N (particulate nitrogen, total dissolvable nitrogen, ammonium, nitrate), δ18O (nitrate), δ30Si (biogenic silica, dissolved silicon).

New funding
• Belgian Science Policy, Science for Sustainable Development programme; “Biogeochemical cycles in the Southen ocean: Role within the Earth System” (BIGSOUTH); 2011 – 2014.
• Flanders Research Foundation, “The biological carbon pump and role of diazotrophs in open ocean carbon export”; 2011-2014.

New results
• Primary production, new production, POC export and mesopelagic remineralisation in the (naturally) iron-fertilised Kerguelen area (KEOPS 2)
• N, O isotopic composition of whole water column nitrate in the Kerguelen area (KEOPS 2)
• Sea-ice primary production, NO3, NH4, Si uptake; N, O isotopic composition of sea-ice nitrate (SIPEX 2)
• Primary production, new production, N2-fixation; C, N isotopic composition of suspended matter; N, O isotopic composition of nitrate in upper 700m (EUROPA)
• Whole water column dissolved Ba concentrations along CLIVAR/WOCE I9S line (R/V Aurora Australis, AU 1203; Jan. – Feb. 2012)
• Nitrogen isotopic composition (PN, TDN, NO3) in pack ice from the Weddell Sea (ISPOL, Dec. 2004), the Bellingshausen Sea (SIMBA, Oct. 2007), and Dumont D’Urville (ICELIPIDS, Apr. - Nov. 2011).
• Silicon isotopic composition (dissolved silicon) in landfast sea ice from a small Greenlandic bay (March. 2010).
• Trace metals concentrations (Fe, Ni, Cu, Zn, Pb, Al, Mn and Cd) in snow, seawater, brines and sea ice in Central Arctic (IceArc, Aug.-Oct 2012) and in McMurdo Sound (YROSIAE, Nov.-Dec 2011).

**Relevant publications**


