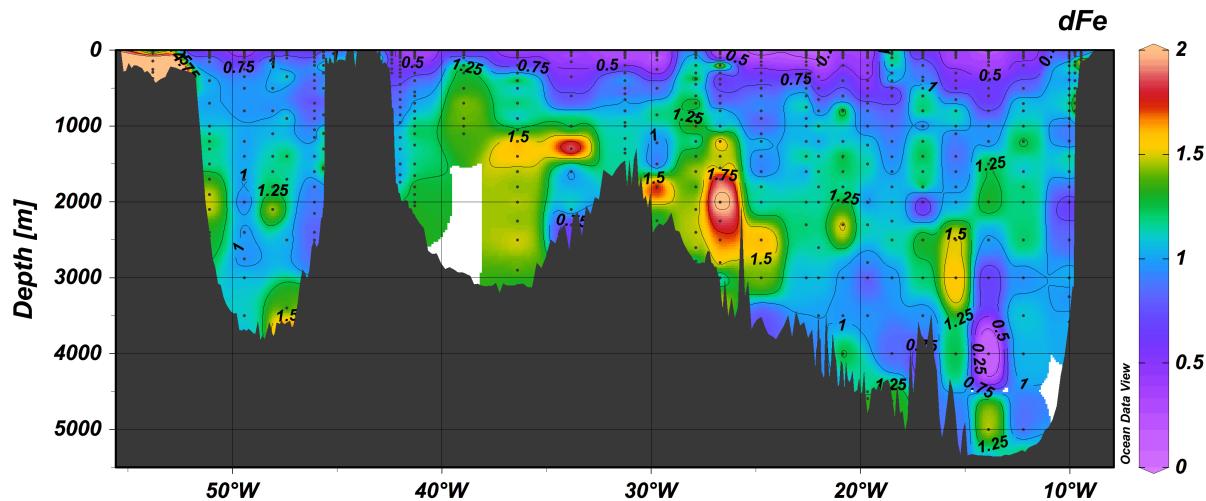


ANNUAL REPORT ON GEOTRACES ACTIVITIES IN FRANCE

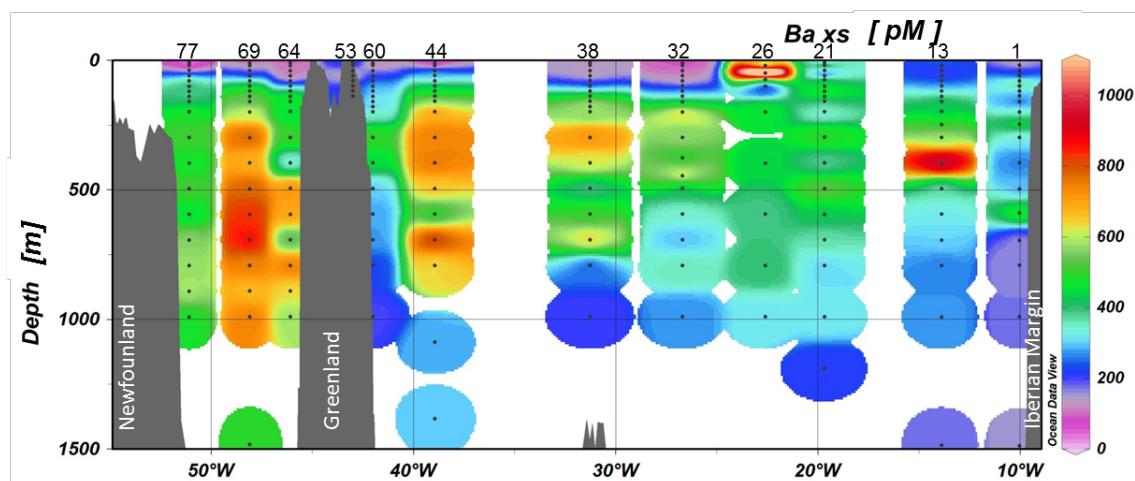
June 1st, 2015 to April 30th, 2016

New Science highlights

- Distribution of dissolved Fe (dFe) along the GEOVIDE section (Tonnard et al., unpub.). Concentrations ranged from 0.1 nM to 10.1 nM, with the lowest values observed in the surface waters indicative of biological uptake and/or low atmospheric inputs. The highest values were found above the Greenland, Iberian and Canadian margins suggesting shelf inputs.

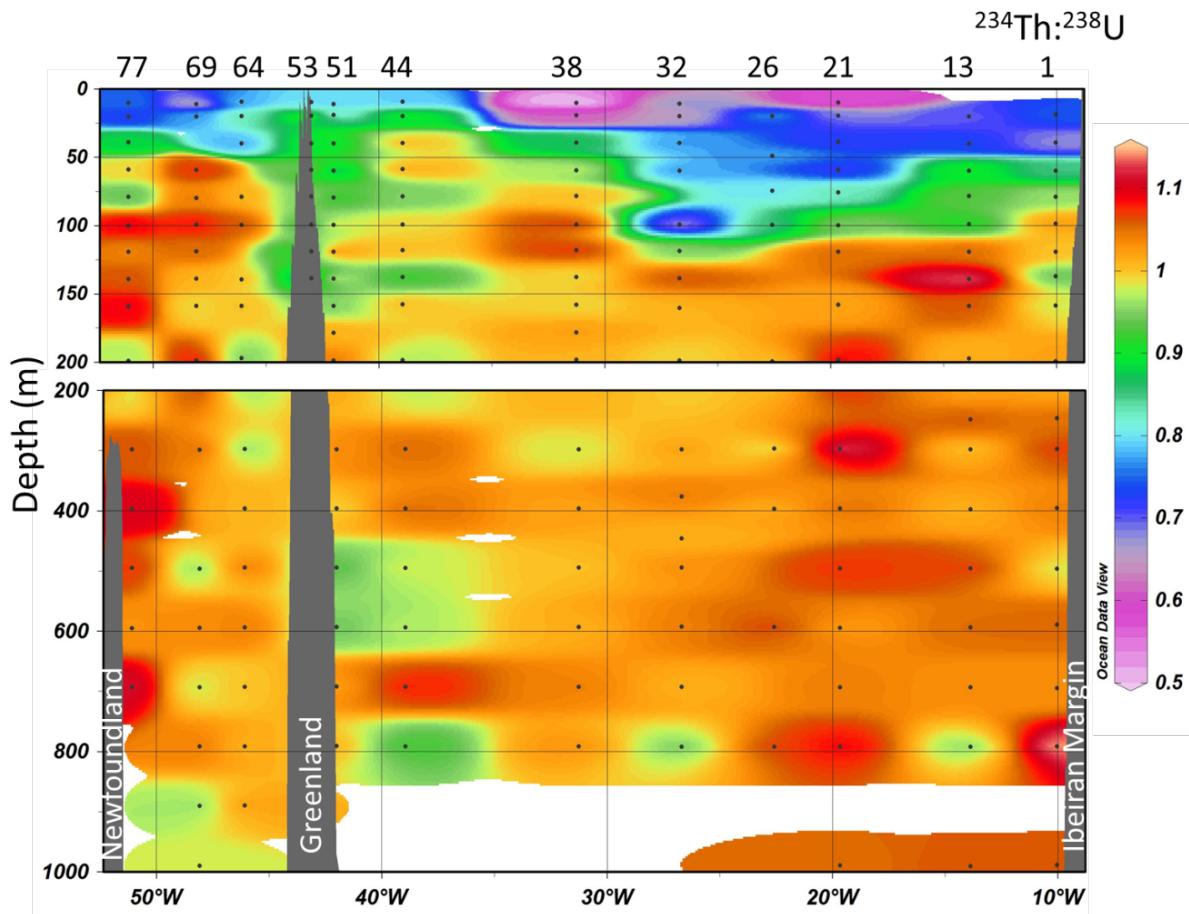


- Distribution of particulate biogenic barium (Baxs) along the GEOVIDE section (Lemaitre et al., unpublished). Concentrations range from 35 pM at station 77 in surface waters to 1888 pM at station 26 in surface waters. Generally, the maximum of Baxs content is located between 100 and 1000m. To the west of station 44 and in particular in the Labrador Sea, Baxs concentrations are significantly larger, reaching nearly 900 pM. These high values coincide with the formation of the Labrador Seawater.



- Distribution of the ratio $^{234}\text{Th}/^{238}\text{U}$ along the GEOVIDE section (Lemaitre et al., unpublished). Ratios range from 0.50 at station 38 in surface waters to 1.15 at station 1,

790 m. A larger deficit induces a greater ^{234}Th export flux while a larger accumulation of ^{234}Th relative to ^{238}U highlights remineralization processes.



- POC export fluxes based on the ^{234}Th approach, and carbon remineralization fluxes based on Baxs concentrations during the GEOVIDE cruise: Low POC export fluxes but high POC remineralization fluxes. As a result very little or no POC is transferred below 1000m

New peer-review publications (published or in press)

2015

- Bonnet, S., Rodier, M., Turk-Kubo, K.A., Germineaud, C., Menkes, C., Ganachaud, A., Cravatte, S., Raimbault, P., Campbell, E., Quéroué, F., Sarthou, G., Desnues, A., Maes, C., Eldin, G., 2015, Contrasted geographical distribution of N₂ fixation rates and nifH phylotypes in the Coral and Solomon Seas (South-Western Pacific) during austral winter conditions, Global Biogeochem. Cy., 29, 1874–1892, doi:10.1002/2015GB005117
- Bowie A.R., van der Merwe, P., Quéroué, F., Trull, T., Fourquez, M., Planchon, F. Sarthou, G., Chever, F., Townsend, A.T., Obernosterer, I., Sallée, J.-B., Blain, S., 2015, Iron budgets for three distinct biogeochemical sites around the Kerguelen plateau (Southern Ocean) during the natural fertilization experiment KEOPS-2., Biogeosciences, 12, 4421–4445, 2015
- Cavagna A. J., Fripiat F., Elskens M., Dehairs F., Mangion P., Chirurgien L., Closset I., Lasbleiz M., Flores-leiva L., Cardinal D., Leblanc K., Fernandez C., Lefevre D., Oriol L., Blain S., Queguiner B. (2015). Production regime and associated N cycling in the vicinity

of Kerguelen Island, Southern Ocean. *Biogeosciences*, 12(2), 6515-6528. <http://doi.org/10.5194/bg-12-6515-2015>

- Cuvier A., Panza F., Pourcelot L., Foissard B., Cagnat X., Prunier J., van Beek P., Souhaut M., 2015. Le Roux G., Accumulation and sources of U decay chain daughters around a minor closed uranium mine, *Journal of Environmental Radioactivity* 149, 110-120
- Dehairs, F., Fripiat, F., Cavagna, A.J., Trull, T.W., Fernandez, C., Davies, D., Roukaerts, A., Fonseca Batista, D., Planchon, F., Elskens, M., 2015. Nitrogen cycling in the Southern Ocean Kerguelen Plateau area: evidence for significant surface nitrification from nitrate isotopic compositions. *Biogeosciences* 12, 1459-1482.
- Fripiat F., Elskens M., Trull T. W., Blain S., Cavagna A. -J., Fernandez C., Fonseca-Batista D., Planchon F., Raimbault P., Roukaerts A., Dehairs F. (2015). Significant mixed layer nitrification in a natural iron-fertilized bloom of the Southern Ocean. *Global Biogeochemical Cycles*, 29(11), 1929-1943 <http://doi.org/10.1002/2014GB005051>
- Heimbürger, LE, JE Sonke, D Cossa, D Point, C Lagane, L Laffont, BT Galfond, M Nicolaus, B Rabe, M Rutgers van der Loeff (2015). Shallow methylmercury production in the marginal sea ice zone of the central Arctic Ocean *Scientific Reports* 5:10318. doi: 10.1038/srep10318
- Jacquet, S.H.M., Dehairs, F., Lefèvre, D., Cavagna, A.J., Planchon, F., Christaki, U., Monin, L., André, L., Closset, I., Cardinal, D., 2015. Early spring mesopelagic carbon remineralization and transfer efficiency in the naturally iron-fertilized Kerguelen area. *Biogeosciences* 12, 1713-1731.
- Koch-Larrouy A., Atmadipoera A., van Beek P., Madec G., Aucan J., Lyard F., Grelet J., Souhaut M., 2015. Estimate of tidal mixing in the Indonesian archipelago from multidisciplinary data, *Deep-Sea Research I* 106, 136–153
- Laurenceau-Cornec, E.C., Trull, T.W., Davies, D.M., Bray, S.G., Doran, J., Planchon, F., Carlotti, F., Jouandet, M.P., Cavagna, A.J., Waite, A.M., Blain, S., 2015. The relative importance of phytoplankton aggregates and zooplankton fecal pellets to carbon export: insights from free-drifting sediment trap deployments in naturally iron-fertilised waters near the Kerguelen Plateau. *Biogeosciences* 12, 1007-1027.
- Mawji, E., Schlitzer, R., Masferrer Dudas, E. et al., The GEOTRACES Intermediate Data Product 2014, *Mar. Chem.*, doi :10.1016/j.marchem.2015.04.005.
- Planchon, F., Ballas, D., Cavagna, A.J., Bowie, A.R., Davies, D., Trull, T., Laurenceau-Cornec, E.C., Van Der Merwe, P., Dehairs, F., 2015. Carbon export in the naturally iron-fertilized Kerguelen area of the Southern Ocean based on the ^{234}Th approach. *Biogeosciences* 12, 3831-3848.
- Quéróué F., G. Sarthou, H.F. Planquette, E. Bucciarelli, F. Chever, P. van der Merwe, D. Lannuzel, A.T. Townsend, M. Cheize, S. Blain, F. d'Ovidio and A.R Bowie., 2015. High variability in dissolved iron concentrations in the vicinity of the Kerguelen Islands (Southern Ocean), *Biogeosciences* 12, 3869–3883, www.biogeosciences.net/12/1/2015/, doi:10.5194/bg-12-3869-2015
- Rembauville M., Blain S., Armand L., Queguiner B., Salter I. (2015). Export fluxes in a naturally iron-fertilized area of the Southern Ocean - Part 2: Importance of diatom resting spores and faecal pellets for export. *Biogeosciences*, 12(11), 3171-3195. <http://doi.org/10.5194/bg-12-3171-2015>

- Rembauville M., Salter I., Leblond N., Gueneugues A., Blain S. (2015). Export fluxes in a naturally iron-fertilized area of the Southern Ocean - Part 1: Seasonal dynamics of particulate organic carbon export from a moored sediment trap. *Biogeosciences*, 12(11), 3153-3170. <http://doi.org/10.5194/bg-12-3153-2015>
- Rousseau T.C.C., Sonke J.E., Chmeleff J., van Beek P., Souhaut M., Boaventura G., Seyler P., Jeandel C., 2015. Rapid neodymium release to marine waters from lithogenic sediments in the Amazon estuary, *Nature Communications* DOI: 10.1038/ncomms8592
- Sanial V., van Beek P., Lansard B., Souhaut M., Kestenare E., d'Ovidio F., Blain S., 2015. Use of Ra isotopes to deduce rapid transfer of sediment-derived inputs off Kerguelen, *Biogeosciences* 12, 1415-1430, doi:10.5194/bg-12-1415-2015
- Trull, T.W., Davies, D.M., Dehairs, F., Cavagna, A.J., Lasbleiz, M., Laurenceau-Cornec, E.C., d'Ovidio, F., Planchon, F., Leblanc, K., Quéguiner, B., Blain, S., 2015. Chemometric perspectives on plankton community responses to natural iron fertilisation over and downstream of the Kerguelen Plateau in the Southern Ocean. *Biogeosciences* 12, 1029-1056.
- van der Merwe, P., A. R. Bowie, F. Quérouté, L. Armand, S. Blain, F. Chever, D. Davies, F. Dehairs, F. Planchon, G. Sarthou, A. T. Townsend, and T. Trull, Sourcing the iron in the naturally-fertilised bloom around the Kerguelen plateau: particulate trace metal dynamics, 2014. *Biogeosciences*, 12, 1–17, 2015, www.biogeosciences.net/12/1/2015/, doi:10.5194/bg-12-1-2015.
- Zunino, Patricia, Pascale Lherminier, Herlé Mercier, Xose A. Padín , Aida F. Ríos and Fiz F. Pérez (2015): Dissolved Inorganic Carbon and anthropogenic CO₂ budgets in the eastern Subpolar North Atlantic in the 2000s from in situ data. *Geophys. Res. Lett.* 42, doi:10.1002/2015GL066243

2016

- Conway T., John S. G., Lacan F. Intercomparison of dissolved iron isotope profiles from re-occupation of three GEOTRACES stations in the Atlantic Ocean. Accepted to *Marine Chemistry*.
- Pham M.K., van Beek P., Carvalho F.P., Chamizo E., Degering D., Engeler C., Gascó C., Gurriaran R., Hanley O., Harms A.V., Herrmann J., Hult M., Ikeuchi Y., Ilchmann C., Kanisch G., Kis-Benedek G., Kloster M., Laubenstein M., Llaurado M., Mas J.L., Nakano M., Nielsen S.P., Osvath I., Povinec P.P., Rieth U., Schikowski J., Smedley P.A., Suplinska M., Sýkora I., Tarjan S., Varga B., Vasileva E., Zalewska T., Zhou W., 2016. Certified reference materials for radionuclides in Bikini Atoll sediment (IAEA-410) and Pacific Ocean sediment (IAEA-412), *Applied Radiation and Isotopes* 109. doi: 10.1016/j.apradiso.2015.11.041.
- Rembauville, M., Meiland, J., Ziveri, P. Blain, S., Salter, I., 2016. Planktic foraminifer and coccolith contribution to carbonate export fluxes over the central Kerguelen Plateau. *Deep Sea Research Part I*, 111, 91-101, doi:10.1016/j.dsr.2016.02.017
- Soerensen, AL, DJ Jacob, AT Schartup, JA Fisher, I Lehnher, VL StLouis, LE Heimbürger, JE Sonke, DP Krabbenhoft, EM Sunderland (2016). A Mass Budget for Mercury and Methylmercury in the Arctic Ocean. *Global Biogeochemical Cycles* 30 doi: 10.1002/2015GB005280

Other publications

- Guieu C. and V. Shevchenko, Dust in the Ocean, in : Encyclopedia of Marine Geosciences edited by Jan Harff, Martin Meschede, Sven Petersen and Jörn Thiede. DOI 10.1007/978-94-007-6644-0_56-3, Springer Science+Business Media Dordrecht, 2015.

Cruises

- In 2016, several coastal cruises along the French Mediterranean coastline in the framework of the MED-SGD project
- Participation to the Australian GEOTRACES cruise HEOBI (GIpr05), Jan.-Feb. 2016.
- Participation to the Germain TransArctic cruise FS Polarstern PS94 (GN04, TransArc II, chief scientist: U Schauer, GEOTRACES lead scientist: MR van der Loeff)

New projects and/or funding

- IDEX-Emergence IRONIC 2016-2018 86 000 €. Iron isotopes: an emerging field for exploring the oceanic biogeochemical cycles (PI: F. Lacan).
- MED-SGD (ANR Blanc; PI: P. van Beek; 2016-2019) : Submarine Groundwater Discharge: A hidden source of chemical compounds at the land-ocean interface
- RASEDIM (NEEDS-Environnement ; PI : P. van Beek ; 2015-2016) : Mobilité du RAadium à l'interface eau-SEdiment dans les milieux lacustres : Déséquilibres Isotopiques et Minéralogie de la barytine.
- PEACETIME ProcEss studies at the Air-sEa Interface after dust deposition in the MEditerranean sea, Coordination C. Guieu and K. Desboeufs).
- Labex EXPATE, EXploring the role of PArticles in Trace Element cycling in the central Arctic Ocean (PI. H. Planquette)
- Labex MOBIDIC, MOdelling the Biogeochemical Impact of seDImentary partiCulate iron (PI. T. Gorgues)
- Chantier Arctique Francais PARCS-AMER (PI PARCS K Law ; PIs AMER (Arctic Mercury) JE Sonke & LE Heimbürger)

PhD

- Sanial, V. (2015), Etude des échanges côte-large au moyen des isotopes du radium: cas de la fertilisation en fer au large des îles Crozet et Kerguelen (Océan Austral), Toulouse, France.

International conferences

2015

- Ayache M., C. Jeandel, JC Dutay and T. Arsouze Constraints on the neodymium (Nd) oceanic cycle in the Mediterranean Sea using a high resolution coupled model, EGU Vienne, 2015
- Cheize, M.; Planquette, H. F.; Fitzsimmons, J.; Sherrell, R. M.; Sarthou, G.; Bucciarelli, E.; Lambert, C.; Le Goff, M.; Viollier, E., 2015 Contribution of suspended marine particles

to the dissolved trace metals pool: an experimental study with sediments from contrasting environments, ASLO meeting, Granada, Spain, Feb. 2015 (Poster)

- Cossa D, Heimbürger LE, Sonke JE, Zhang Y, Lacan F, Lherminier P, Sarthou G. Mercury in the North Atlantic Ocean - results of the 2014 GEOTRACES GEOVIDE cruise (talk). 12th International Conference on Mercury as a Global Pollutant, Jeju, South Korea, June 2015. Talk.
- De Vleeschouwer F., Le Roux G., Sonke J., van Beek P., Souhaut M., Pourcelot L., Masson O., Guarriaran R., Hughes P.D.M., Piotrowska N., Tanimizu M., Hotes S., Klaminder J., Martinez-Cortizas A., Olid C. Japanese PEat records of ATmospheric deposition of artificial radionuclides (J-PEAT): Impacts of Fukushima accident and implications for radiochronology, INQUA meeting, Nagoya, Japan, 27 juillet-2 août 2015
- Gourain, A., Planquette, H., Cheize M., Menzel, J.-L., Boutorh J., Shelley R., Pereira Contreira L., Bucciarelli E., Sarthou G., Bassoulet, C., 2015, Size fractionated particulate iron along the GEOVIDE section (GEOTRACES section GA01), ASLO meeting, Granada, Spain, Feb. 2015. Poster.
- Heimbürger, LE, C Lagane, L Laffont, D Cossa, JE Sonke, Mercury measurements in the oceans - results of the 2013 and 2014 GEOTRACES intercalibration exercises, 12th International Conference on Mercury as a Global Pollutant, Jeju, South Korea, Invited talk
- Heimbürger, LE, D Cossa, A Schartup, C Lagane, L Laffont, JE Sonke, Methylmercury production in the oceans: links to physics, chemistry and biology, , 12th International Conference on Mercury as a Global Pollutant, Jeju, South Korea, Invited talk.
- Jeandel Catherine 25 years of Marine Geochemistry, Invited talk for the Goldschmidt 25th anniversary; Goldschmidt Conference, Prague, 16-21 Aug 2015
- Jeandel C. Solid river inputs and ocean margins as critical sources of elements to the oceans Invited Talk at the Royal Society Discussion Meeting, London, 7-8 december 2015
- Lacan F., Labatut M., Pradoux C., Radic A., Murray J.W., Poitrasson F., Johansen A. Iron isotopes along the Equator in the Western and Central Pacific Ocean. Goldschmidt Conference, Prague, Czech Republic, August 2015. Invited talk.
- Lemaitre, N., H. Planquette, F. Dehairs, L. Monin, L. André, S. Jacquet, F. Planchon. Mesopelagic carbon remineralization from particulate excess Ba along the GEOVIDE transect in the North Atlantic. 2015. Goldschmidt, Prague (Czech Republic). Talk.
- Masferrer Dodas, Catherine Jeandel, Reiner Schlitzer, Ed Boyle, Geotrace group* Highlights from the GEOTRACES International Programme Goldschmidt Conference, Prague, 16-21 Aug 2015, poster
- Menzel, J. L.; Schlosser, C.; Planquette, H.; Cheize, M.; Boutorh, J.; Shelley, R.; Contreira, L.; Gledhill, M.; Sarthou, G.; Achterberg, E. P.: High resolution dissolved aluminum (dAl) measurements along the GEOVIDE section (geotrace section GA01) and aerosol deposition rates to the north Atlantic, ASLO meeting, Granada, Spain, Feb. 2015 (Poster)
- Michael Susanna Marie, Joseph A Resing, Catherine Jeandel and Francois Lacan, Aluminum and Manganese Distributions in the Solomon Sea: Results from the 2012 PANDORA Cruise Poster AGU San Francisco, 2015
- Pham V., Jeandel C., leleu T., Grenier M., Rousseau T., Ganachaud G. and Eldin G. Rare Earth Elements in the Coral and Solomon Seas (Pandora-GEOTRACES) Goldschmidt Conference, Prague, 16-21 Aug 2015, poster

- Rosati, G., LE Heimbürger, JE Sonke, MJA Rijkenberg, L Gerrringa, HJW de Baar, Developing a methylmercury dynamic model for the Black Sea, 12th International Conference on Mercury as a Global Pollutant, Jeju, South Korea
- Sarthou, G., Quérouté, F., Chever, F., van der Merwe, P., Lannuzel, D., Townsend, A.T., Bucciarelli, E., Planquette, H.F., Cheize, M., Blain, S., d'Ovidio, F. and Bowie, A.R., High variability of dissolved iron concentrations in the vicinity of the Kerguelen Island (Southern Ocean), 3rd International Symposium on the Effects of Climate Change on the World's Oceans, Santos, Brazil, March 23-27
- Sarthou, G., Lherminier, P. and the GEOVIDE team, 2015, GEOVIDE: An international GEOTRACES study in the North Atlantic and Labrador Sea, Goldschmidt Conference, Prague, August 16-21 (oral).
- Shelley, R. and Sarthou, G. 2015, Elemental composition of atmospheric deposition during the GEOVIDE campaign (Lisbon, Portugal-St John's, Canada; GEOTRACES GA01), Aquatic Sciences Meeting, Granada, Spain. 22-26 Feb. (Oral)
- Soerensen, AL, DJ Jacob, A Schartup, JA Fisher, I Lehnher, VI StLouis, LE Heimbürger, JE Sonke, An evaluation of internal production and external sources of methylmercury in the Arctic Ocean, 12th International Conference on Mercury as a Global Pollutant, Jeju, South Korea
- Tachikawa K., Arsouze T., Bayon G., Bory A., Colin C., Dutay J-C., Frank N., Gourlan A.T., Hillaire-Marcel C., Jeandel C., Lacan F., Meynadier L., Montagna P., Pucéat E., Roy-Barman M., Waelbroeck C. Comparison between seawater and archive Nd isotope compositions using multi-scatter plots: a new global data compilation. Goldschmidt Conference, Prague, Czech Republic, August 2015. Talk.
- Tonnard, G. Sarthou, H. Planquette, P. van der Merwe, J. Boutorh, M. Cheize, J.L. Menzel, L. Pereira Contreira, R. Shelley, A.R. Bowie, 2015, Dissolved iron along the GEOVIDE section (GEOTRACES section GA01), Goldschmidt Conference, Prague, August 16-21 (poster)
- van Beek P., Stieglitz T., Souhaut M., Study of SGD along the French Mediterranean coastline using airborne TIR images and in situ analyses, European Geosciences Union General Assembly 2015 Vienne, Autriche, 12-17 april 2015.
- Zhang Y, Heimbürger LE, Cossa D, Sonke JE, Lacan F, Lherminier P, Sarthou G. Mercury in the North Atlantic Ocean - direct comparison of model and observations along the 2014 GEOTRACES GEOVIDE cruise transect. 12th International Conference on Mercury as a Global Pollutant, Jeju, South Korea, June 2015. Poster.

2016

- Achterberg, E.P., Menzel Barraqueta, J.-L., Schlosser, C., Planquette, H., Cheize, M., Boutorh, J., Shelley, R., Sarthou, G. and Gledhill, M., High resolution dissolved and dissolvable aluminum measurements along the GEOVIDE section (GEOTRACES section GA01), 2016, Ocean Science Meeting, New Orleans, 21-26 Feb.
- Ayache, M., Dutay JC, Arsouze T., Revillon S. and Jeandel C. High resolution neodymium characterization along the Mediterranean Sea margins: implications for ϵ Nd modeling. EGU, Vienna, 2016
- Cheize, M., Planquette, H., Fitzsimmons, J., Sherrell, R.M., Pelleter, E., Lambert, C., Sarthou, G., Boutorh, J., Bucciarelli, E., Le Goff, M., Liorzou, C., Chéron, S. and

- Gayet,N., 2016, Contribution of Resuspended Sediments to the Dissolved Trace Metal Pool (Fe, Mn): An Experimental Study, Ocean Science Meeting, New Orleans, 21-26 Feb.
- Heimbürger, L.E., Cossa, D., Rijkenberg, M.J.A., Sarthou, G., Rutgers van der Loeff, M., Sunderland, E.M., and Sonke, J., Mercury in the North Atlantic and Arctic Oceans - results of the 2014 GEOTRACES GEOVIDE & 2015 GEOTRACES TransArc II cruises, Ocean Science Meeting, New Orleans, 21-26 Feb
 - Heimbürger, LE, JE Sonke, R Teisserenc, O Pokrovski, MJA Rijkenberg, M Rutgers van der Loeff, B Galfond, N Maruszczak, C Lagane, Biogeochemical Studies in the Siberian Shelf Seas workshop, GEOMAR, Kiel, Germany, Invited talk: Arctic Mercury Puzzle(s) TRANSARCII science party, SVALBARD project, 2013 TARA OCEANS POLAR CIRCLE
 - Heimbürger, LE, D Cossa, MJA Rijkenberg, G Sarthou, M Rutgers van der Loeff, EM Sunderland, JE Sonke, ISO-FOOD workshop on speciation of trace elements, Ljubljana, Slovenia Mercury in the North Atlantic and Arctic Oceans - results of the 2014 GEOTRACES GEOVIDE & 2015 GEOTRACES TransArc II cruises & some quality assurance
 - Planquette H, Gourain A, Cheize M, Menzel Barraqueta J-L, Boutorh J, Shelley R, Pereira Contreira L, Lacan F, Lherminier P, Sarthou G. Particulate trace elements in the North Atlantic along the GEOVIDE section (GEOTRACES GA01). Ocean Sciences Meeting. February 2016. New Orleans (USA). Talk.
 - Lemaitre, N., H. Planquette, F. Dehairs, L. Monin, L. André, S. Jacquet, F. Planchon. Mesopelagic carbon remineralization from particulate excess Ba along the GEOVIDE transect in the North Atlantic. 2016. Poster. Ocean Sciences Meeting, New Orleans (USA)
 - Lemaitre, N., F. Planchon, H. Planquette, F. Dehairs, L. Monin, L. André, M. Leermarkers, D. Fonseca-Batista, A. Roukaerts, C. Mourgues, D. Verstraeten, M. Castrillejo, Y. Tang, C. Jeandel, V. Sanial, R. Sauzède, L. Foliot. Carbon export fluxes along the GEOVIDE transect in the North Atlantic (GEOTRACES GA01). 2016. Poster Ocean Sciences Meeting, New Orleans (USA)
 - Lherminier, P., H. Mercier, N. Daniault, FF. Perez, A. Rios, P. Zunino, MI. García-Ibáñez, V. Racapé, M. Gehlen, L. Bopp (2016): OVIDE-A25, a Biennial Hydrographic Transect across the North Atlantic Subpolar Gyre since 2002: Overview of the Main Scientific Findings about the Variability of the Meridional Overturning Circulation and its Impact on the CO₂ Physical Pump. Talk. AGU, Ocean Sciences, New Orleans, 21-26 Feb. 2016, session B53A.
 - Michael S.M., Resing J.A., Jeandel C., Lacan F. Aluminum and Manganese Distributions in the Solomon Sea: Results from the 2012 PANDORA Cruise. Ocean Sciences Meeting, New Orleans, USA, February 2016. Poster.
 - Racapé, V., M. Gehlen, P. Zunino, P. Lherminier, L. Bopp, H. Mercier: Transport and storage of anthropogenic C across the Greenland-Portugal OVIDE section: Observations vs NEMO-PISCES Talk. AGU, Ocean Sciences, New Orleans, 21-26 Feb. 2016
 - Reverdin, G.P., Benetti, M., Yashayaev, Y., Olafsdottir, S., Holliday, N.P., Tynan, E., Lherminier, P., Treguer, P.J., and Sarthou, G., 2016, Freshwater Origin of the Upper Shelf and Slope Waters of Southern Labrador and Newfoundland, Ocean Science Meeting, New Orleans, 21-26 Feb

- Rosati, G., LE Heimbürger, D Melaku Canu, JE Sonke, MJA Rijkenberg, L Gerringsa, HJW de Baar CIESM 2016, Kiel, Germany, Methylmercury in the Black Sea: new observations compared with a 1D numerical model
- Sarthou, G, Lherminier, P. and the GEOVIDE team, 2016, GEOVIDE: An international GEOTRACES study in the North Atlantic and Labrador Sea (GA01 GEOTRACES section), Ocean Science Meeting, New Orleans, 21-26 Feb
- Shelley, R., Roca-Martí, M., Castrillejo, M., Masqué, P., and Sarthou, G., 2016, Estimation of Trace Element Atmospheric Deposition Fluxes to the Atlantic Ocean ($> 40^{\circ}\text{N}$) During Spring 2014 (GEOVIDE, GEOTRACES GA01), Ocean Science Meeting, New Orleans, 21-26 Feb
- Zunino, P., P. Lherminier, H. Mercier, A. F. Ríos, X. A. Padin and F. F. Pérez (2016): Budgets of Dissolved Inorganic Carbon in the Eastern Subpolar North Atlantic in the 2000s from In Situ Data Poster. AGU, Ocean Sciences, New Orleans, 21-26 Feb. 2016

National conferences

2016

- Heimbürger, LE D Cossa, MJA Rijkenberg, G Sarthou, M Rutgers van der Loeff, EM Sunderland, JE Sonke, Mercury in the North Atlantic and Arctic Oceans - results of the 2014 GEOTRACES GEOVIDE & 2015 GEOTRACES TransArc II cruises, Invited talk: OGS Trieste, Italy
- Heimbürger, LE D Cossa, MJA Rijkenberg, G Sarthou, M Rutgers van der Loeff, EM Sunderland, JE Sonke, Mercury in the North Atlantic and Arctic Oceans - results of the 2014 GEOTRACES GEOVIDE & 2015 GEOTRACES TransArc II cruises, Invited talk: Laboratoire d'Oceanographie de Villefranche s/Mer
- van Beek P., Souhaut M., Jean-Louis Reyss, 2016. Low-Background gamma spectrometry at the underground laboratory of Ferrières, French Pyrénées, Invited talk, Journées NEEDS Environnement, 1-3 Février, Toulouse

Outreach activities

- Conferences in the framework of the Etoiles Brillent Pour Tous (www.ebpt.fr).
- Train du Climat:

<http://geotraces.org/outreach/geotraces-enewsletter/archive/view/listid-12-geotraces-newsletter/mailid-501-geotraces-outreach>

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

- Co-organization of the workshop “Biological and climatic impacts of ocean trace element chemistry”, The Royal Society, London, 7-8 December 2015.
- Co-organization of the workshop “Quantifying fluxes and processes in trace-metal cycling at ocean boundaries”, Kavli Royal Society Centre, Chicheley Hall, 9-10 December 2015.
- European Geosciences Union General Assembly 2015 Vienne, Autriche, 12-17 april 2015, session “HS8.2.9: Hydrogeology of coastal zones: processes, consequences and potentials” at the, Co-Conveners: Eric Zechner, G.H.P. Oude Essink , Thomas Graf , Perry de Louw , Ulf Mallast , P. van Beek , Christian Siebert

- Goldschmidt 2015, Prague; CZ, August 16-21 2015. Theme 2: Ocean Geochemistry. Present Conditions and Past Variation: Fluxes, reservoirs and processes. Theme Chairs: Géraldine Sarthou (LEMAR CNRS, Brest, France) and Andrew Bowie (University of Tasmania). 7 special sessions within this theme.
- Third international symposium on Effects of Climate Change on the World's Ocean, Santos, Brazil, 23-27 mars 2015. Session S3: "Changing ocean chemistry: From trace elements and isotopes to radiochemistry and organic chemicals of environmental concern". Session Chairs: Angelica Peña (Institute of Ocean Sciences, Sidney, Canada), Géraldine Sarthou (LEMAR, Brest, France).
- Ocean Science Meeting, New Orleans, USA, 21-27 February 2016. Trace Elements and Isotopes at the oceanic interfaces of the Atlantic Ocean. Session chairs: Géraldine Sarthou (LEMAR, Brest, France), Edward A Boyle (Massachusetts Institute of Technology, USA), Gideon Henderson (University of Oxford, UK), Micha Rijkenberg (NIOZ Royal Netherlands Institute for Sea Research, Texel, NL).
- Development of the LAFARA underground laboratory in the French Pyrénées in the framework of a FEDER project. This project will allow us to increase the capacity of analysis using low-background gamma spectrometry.
- SELECT (projet FEDER 2016-18- Région Languedoc- Roussillon-Midi-Pyrénées/Europe): Sélection de matériaux « bas niveau » au laboratoire souterrain LAFARA pour la fabrication d'instruments et d'équipements de mesure nucléaire ultra-performants (PIs : P. van Beek/ M. Souhaut).
- GEOVIDE post-cruise meeting, Brest, 26-27 May 2015 (<http://www.geovide.obs-vlfr.fr/post-cruise-meeting-25-26-may-2015/>), 32 participants
- GEOVIDE 2016 meeting, Brest, 26-27 May 2016
- 12th International Conference on Mercury as a Global Pollutant, Jeju, Korea :

LE Heimbürger is member of the Scientific Steering Committee
 Special session organizer and chair: Integrating marine observational studies and model development, AL Soerensen & LE Heimbürger (8 presentations + 5 posters)
 Workshop: trace clean sediment & water sampling, handling and analysis, Jim Hurley, LE Heimbürger, Seunghee Han, Brooks Rand Labs
 Workshop: Marine mercury measurements - open discussion on intercalibration issues, LE Heimbürger
- 2015 GEOTRACES intercalibration exercise for total methylmercury and total mercury in seawater, coordinated by LE Heimbürger
- In 2017, planned organization of a GEOTRACES summer school in Brest. This summer school will aim at teaching the skills and knowledge necessary for a good understanding of the biogeochemical cycles of trace metals. It will also allow doctoral students and early career researchers to see how their work fits within the international community of GEOTRACES. This event will gather numerous international students and world renowned scientists in Brest. IUEM has all the means necessary to consider a combination of practical conferences and workshops, especially through analytical tools of the PSO. Date is not fixed yet, but we are aiming for September 2017.

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