

# Dr Tim M. Conway

B.A. M.Sci. Ph.D. F.G.S.

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## Education

**BA & MSci Natural (Geological) Sciences** – 1<sup>st</sup> Class Honours (October 2002 - June 2006).**Cambridge University, Department of Earth Sciences & St Catharine's College.**

Included independent bachelors mapping project and masters research project. 1 publication.

**PhD Earth Sciences (NERC Studentship)** (October 2006 - August 2010).**Cambridge University, Department of Earth Sciences & British Antarctic Survey, UK.***Title "Solubility and bioavailability of iron from dust in Antarctic ice cores".*Advisors: **Prof. Eric Wolff, Prof. Harry Elderfield, Dr Regine Röthlisberger.**

Included overseas research visits to University of Otago, Dunedin, NZ (phytoplankton culturing) and Old Dominion University, Norfolk, VA, USA (flow-injection analysis). 3 publications.

## Research Experience and Employment

*19 peer reviewed publications (1 more in revision); 3 in Nature Journals, 1 in PNAS, 1 in Geology.**Assistant Professor (December 2016 to present)***Chemical Oceanography, College of Marine Science, University of South Florida, USA.***Postdoctoral Researcher (July 2014 – December 2016)***Department of Earth Sciences, ETH Zürich, Switzerland (with Prof. Derek Vance).**Marine Isotope Geochemistry. Investigating dissolved  $\delta^{56}\text{Fe}$ ,  $\delta^{66}\text{Zn}$  and  $\delta^{114}\text{Cd}$  variability in modern seawater in the Antarctic-Equatorial Pacific (Japanese GP19 Section). Supervision of a Ph.D. student.*Postdoctoral Associate (October 2010 – June 2014)***Department of Earth & Ocean Sciences, University of South Carolina, USA (with Dr Seth John).**Marine Trace Metal Geochemistry. Developing new methods for extraction and analysis of trace metals (Cd, Cu, Fe, Ni, Zn, Pb) in seawater for concentration and stable isotopic ratio measurement. Measurement of  $\delta^{56}\text{Fe}$ ,  $\delta^{66}\text{Zn}$  and  $\delta^{114}\text{Cd}$  in various materials (aerosols, biological material, seawater), focused on the US and UK Atlantic GEOTRACES Transects (GA03 and GA10).*Graduate Intern (June – August 2008)***Bermuda Institute of Ocean Sciences, Bermuda (with Dr Peter Sedwick).**

Cruise experience, planning and executing rain-seawater mixing experiments to investigate wet-deposition of iron to the Sargasso Sea and use of flow-injection systems for Fe in seawater analysis.

*Laboratory Analyst (Summer 2002 and Dec/Jan 2002 & 2003)***Rothamsted Research & Royal Agricultural University, UK.**

Soil chemical analyses, data collection and processing supporting 8 year DEFRA funded project.

## Teaching, Supervising and Mentoring Experience

**2015 - Present. Institute for Geochemistry and Petrology, Department of Earth Sciences, ETH Zürich.**

- Supervisor for Ph.D. student (Matthias Sieber) together with Professor Derek Vance; thesis title: "*Influence of the Southern Ocean on the marine biogeochemistry of cadmium and its isotopes.*"
- Internal Examiner for Proposal Defence of Matthias Sieber (29<sup>th</sup> Jan 2016).

**2011 – 2014. Department of Earth and Ocean Sciences, University of South Carolina.**

- Mentored a M.S. student, 2 Ph.D. students and a number of undergraduate students working on various biogeochemical research projects. Supervised an undergraduate on a research study to investigate Fe

isotope cycling in rivers. Taught trace-metal/clean lab technique to technicians and students, mass spectrometry and techniques for determination of stable isotope ratios to students.

- Guest Lecturer for USC Marine Sciences 210 ‘Oceans and Man’ undergraduate course.

#### **2006 – 2010. Department of Earth Sciences, University of Cambridge**

- **Demonstrator** for 1<sup>st</sup> (Crystallography & Mineralogy, Plate Tectonics, Sedimentology and Earth Processes, Paleobiology and UK Geological History), 2<sup>nd</sup> (Structural and Seismic Geology, Hydrosphere and Climate, Carbonate & Clastic Sedimentology and Invertebrate Palaeontology), 3<sup>rd</sup> & 4<sup>th</sup> (Climate Change) Year Undergrad Practicals and 1<sup>st</sup> and 2<sup>nd</sup> Year Field Courses.
- **Tutor** for 2<sup>nd</sup> Year Undergrads Climate and Hydrosphere course (Long and Short term climate change).

#### **Field and Interdisciplinary Experience**

- 16 Weeks field experience as part of Undergraduate degree at the University of Cambridge, in a range of locations and geological settings including 8 weeks of independent geological mapping.
- Demonstrated 1<sup>st</sup> and 2<sup>nd</sup> Year Undergraduate field courses for the University of Cambridge in Scotland and South West England (geological mapping, sediments, paleontology, structural geology, oil rocks).
- Research cruise experience on R/V Atlantic Explorer as part of the FEAST-6 Cruise (Senior Scientist Peter Sedwick) from Bermuda Institute of Ocean Sciences in June 2008, fieldwork at BIOS in July-August 2008. Included clean aerosol, seawater and rain collection for geochemical analysis.
- Interaction with a range of biological, chemical and physical international oceanographers as part of the US GEOTRACES GA03 North Atlantic, UK GEOTRACES GA10 40°S and Japanese GEOTRACES GP19 ocean sections. Taking part in data and planning workshops, synthesis and intercomparison efforts, leading to a range of publications, including ongoing work and some still in preparation.

#### **Proposals, Awards and Grants**

- Travel support to attend US GEOTRACES Pacific Planning Workshop at La Jolla, October 2016.
- Travel grant to attend GEOTRACES Workshop August 2016 (\$2000, accommodation & food).
- Co-Investigator on Antarctic Circumnavigation Expedition project “*Tracing the iron cycle in Southern Ocean waters*” with P.I. Prof. Michael Ellwood and Co-Is Prof. Derek Vance, Prof. Sam Jaccard, Prof. Christel Hassler and Prof. Bill Maher (funded March 2016; €260,000).
- AGU Editors’ Citation for Excellence in Refereeing (2015) for *Global Biogeochemical Cycles*.
- NSF Grant ‘*Trace-metal isotopes in Atlantic seawater and particles from GEOTRACES transects A03 and A10*’. OCE-1131387. (co written with P.I. Seth G. John). 8/1/11-7/31/14. \$453,514.
- Funded at USC by NSF OCE-1131387 (\$453,514) and NSF OCE-1235150 (\$441,521), with both grants (P.I. Seth G. John) based on and supported by my original research and published methods.
- NERC Ph.D. Studentship at the British Antarctic Survey & University of Cambridge (2006-2010).
- Thomas Hobbs (1631) prize for academic performance in Geological Sciences at BA & MSci (St Catharine’s College, 2006).

#### **Academic Responsibilities and Community Service (2010 to present)**

- **Journal Reviewer** (32): *Analytica Chimica Acta* (1), *Analytical Letters* (3), *Biogeosciences* (1), *Chemical Geology* (1), *Earth & Planetary Science Letters* (6), *Ecohydrology & Hydrobiology* (2), *Environmental Pollution* (2), *Frontiers in Marine Science* (1), *Geochimica et Cosmochimica Acta* (5), *Geology* (1), *Global Biogeochemical Cycles* (4), *Journal Analytical Atomic Spectrometry* (1), *Marine Chemistry* (2), *Precambrian Research* (1), *Science* (1), *Science of the Total Environment* (1).
- **Proposal Reviewer for geochemical / chemical oceanographic research** (5) on behalf of: *Actions Thématiques Stratégiques Federal University of Toulouse, France* (2015), *German Research Foundation* (2015), *European Research Council Starting Grants* (2016), *US National Science Foundation* (2016).
- **Conference Session Convenor** (3): *Goldschmidt 2014 Sacramento*: (16g) “*Sources, Sinks and Stores: Integrating isotope and geochemical proxies for past and present surface processes, from elementary reactions to global change.*” *Goldschmidt 2016 Yokohama*: (12d) “*Oceanic cycling of trace elements using elemental, isotopic, and modeling approaches: Geotracers and beyond...*” *Goldschmidt 2017 Paris*: “*Isotopes running amok: how internal processes and large scale circulation influence past and present oceanic isotopic distributions.*”

## **Technical and Transferable Skills**

- **Analytical skills.** ICP-OES, ICP-MS (sector field and multi-collector), Flow Injection (FIA-8HQ), clean laboratory design/setup and running, trace-metal cleaning, determination of trace-metal concentration (Cu, Cd, Co, Fe, Ni, Mn, Pb, Zn) and stable isotope ratios ( $\delta^{56}\text{Fe}$ ,  $\delta^{66}\text{Zn}$  and  $\delta^{114}\text{Cd}$ ) in natural materials (aerosol dust, biological material, rain, rocks and seawater), HF-digestion of rock and aerosol dust for geochemical analysis, sublimation of ice-cores, cold clean handling of ice samples, clean seawater collection, filtration and processing, biological culturing under trace metal clean conditions, SEM, and a range of standard geochemical and oceanographic procedures.
- **Other skills.** Experienced, competent Mac and PC computer user: touch-typing, word processing, spreadsheets, web design, image (raster and vector) software, and data entry. Report and paper writing and publication, technical and error analysis, organisational skills, presentations, poster preparation, seminar and lecture writing and presentation. Digital SLR photography and raw image processing.

## **Peer-Reviewed Publications** (*Google Scholar as of 10/24/16: 358 citations, h-index 10, i10-index 10*)

1. Fitzsimmons, J. N., **Conway, T. M.**, Lee, J.-M., Kayser, R., Thyng, K. M., John, S. G. and Boyle, E. A. (2016). Dissolved iron and iron isotopes in the Eastern South Pacific Ocean. *Glob. Biogeochem. Cycles*. (in press).
2. Homoky, W.B., Weber, T. S., Berelson, W. M., **Conway, T. M.**, Henderson, G. M., van Hulten, M., Jeandel, C., Severmann, S., and Tagliabue, A. (2016). Quantifying trace element and isotope fluxes at the ocean-sediment boundary – a review. *Phil. Trans. Roy. Soc. A*. 374: 20160246.
3. **Conway, T. M.**, Hoffmann, L. J., Breitbarth, E., Strzepek, R. F. and Wolff, E. W. (2016). The growth response of two diatom species to atmospheric dust from the Last Glacial Maximum. *PLoS ONE*. 11(7): e0158553.
4. **Conway, T. M.**, John, S. G. and Lacan, F. (2016). Intercomparison of dissolved iron isotope profiles from reoccupation of three GEOTRACES stations in the Atlantic Ocean. *Mar. Chem.* 183. 50-61.
5. Middag, R., Sefarian, R., **Conway, T. M.**, John, S. G., Bruland, K. W. and de Baar, H. J. W. (2015). GEOTRACES Intercomparison of Dissolved Trace Elements at the Bermuda Atlantic Time Series Station. *Mar. Chem.* 177 (3). 476-479.
6. Mawji, E., *et al.* [135 authors, including **Conway, T. M.**] (2015). The GEOTRACES Intermediate Data Product 2014. *Mar. Chem.* 177 (1). 1-8.
7. **Conway, T. M.** Wolff, E.W., Röthlisberger, R., Mulvaney, R., and Elderfield, H. (2015). Constraints on soluble aerosol Fe flux to the Southern Ocean at the Last Glacial Maximum. *Nat. Comm.* 6. 7850.
8. **Conway, T. M.** and John, S. G. (2015). The cycling of iron, zinc and cadmium in the North East Pacific Ocean - insights from stable isotopes. *Geochim. Cosmochim. Acta*. 164 (1). 262-283.
9. Revels, B. N., Ohnemus, D. C., Lam, P. J., **Conway, T. M.** and John, S. G. (2015). The isotopic signature and distribution of particulate iron in the North Atlantic Ocean. *D.S.R. II*. 116. 321-331.
10. Fitzsimmons, J. N., Carrasco, G. G., Wu, J., Roshan, S., Hatta, M., Measures C. I., **Conway T. M.**, John, S. G. and Boyle, E. A. (2015). Partitioning of dissolved iron and iron isotopes into soluble and colloidal phases along the U.S. GEOTRACES North Atlantic Transect. *D.S.R. II*. 116. 130-151.
11. **Conway, T. M.** and John, S. G. (2015). Biogeochemical cycling of cadmium isotopes along a high-resolution section through the North Atlantic Ocean. *Geochim. Cosmochim. Acta*. 148 (1). 269-283.
12. **Conway, T. M.** and John, S. G. (2014). The biogeochemical cycling of zinc and zinc isotopes in the North Atlantic Ocean. *Glob. Biogeochem. Cycles*. 28 (10). 1111-1128.
13. **Conway, T. M.** and John, S. G. (2014). Quantification of dissolved iron sources to the North Atlantic Ocean. *Nature*. 511. 212-215.
14. Janssen, D., **Conway, T. M.**, John, S. G., Christian, J., Kramer, D. L., Pederson, T. F. and Cullen, J. T. (2014). An undocumented water column sink for cadmium in open ocean oxygen deficient zones. *Proc. Nat. Acad. Sci. USA*. 111 (19). 6888-6893.
15. John, S. G. and **Conway, T. M.** (2014). A role for scavenging in the marine biogeochemical cycling of zinc and zinc isotopes. *Earth Planet. Sci. Lett.* 394. 159-167.
16. Homoky, W. B., John, S. G., **Conway T. M.** and Mills, R. A. (2013). Distinct iron isotopic signatures and supply from marine sediment dissolution. *Nature Comm.* 4, 2143.
17. **Conway, T. M.**, Rosenberg, A. D., Adkins, J. F. and John, S. G. (2013). A new method for precise determination of iron, zinc and cadmium stable isotope ratios in seawater by double-spike mass spectrometry. *Anal. Chim. Acta*. 793. 44-52.

18. **Conway, T. M.** and Botting, J. P. (2012). A new Middle Ordovician (Llanvirn) odontopleurid trilobite from the Builth Inlier of Mid-Wales, and a review of the genus *Meadowntownella*. *Geol. Mag.* 149 (3). 397-411.
19. Li, G., Chen, J., Ji, J., Yang, J., and **Conway, T. M.** (2009). Natural Sources of East Asian Dust. *Geology*. 37 (8). 727-730

### **In revision**

20. Archer, C., Andersen, M., Cloquet, C., **Conway, T. M.**, Dong, S., Ellwood, M., Moore, R., Nelson, J., Rehkämper, M., Rouxel, O., Samanta, M., Shin, K.-C., Sohrin, Y., Takano, S., and Wasylenki, L. (in revision). Inter-calibration of a proposed new primary reference standard AA-ETH Zn for Zn isotopic analysis. *Journal Anal. Atom. Spectrom.*

### **Other Publications**

- Contributed full section data of  $\delta^{56}\text{Fe}$ ,  $\delta^{66}\text{Zn}$  and  $\delta^{114}\text{Cd}$  for the US GEOTRACES GA03 section and dissolved Fe concentration and  $\delta^{56}\text{Fe}$  for the GA10 section to the GEOTRACES Intermediate Data Product 2017 (upcoming, 2017).
- Contributed full section data of dissolved Cd, Zn and Fe across the US GEOTRACES GA03 North Atlantic Transect (21 stations) to the GEOTRACES Intermediate Data Product 2014, and as part of the GEOTRACES eAtlas (Schlitzer, R., eGEOTRACES - Electronic Atlas of GEOTRACES Sections and Animated 3D Scenes, <http://www.egeotraces.org>, 2014).
- **Conway T. M.** and John S. G. (2013). Sources of Fe to the North Atlantic: Insights from Fe Isotopes. *Mineralogical Magazine*, 77(5) 912.
- John, S.G., **Conway, T. M.**, Casciotti, K., Sigman D., Rafter P. and Marconi, D. (2013). Quantifying Nitrogen Fixation in the North Atlantic Using Paired Analyses of Cd and N Stable Isotopes. *Mineralogical Magazine*. 77(5), 1396.
- Fitzsimmons, J. N., **Conway, T. M.**, John, S. G. and Boyle, E. A. (2013). Iron Isotopes in Seawater from the Southeast Pacific and North Atlantic Oceans. *Mineralogical Magazine*. 77(5), 1092.
- Aquilina, A., Homoky, W. B., Hepburn, L. E., John, S. G., **Conway, T. M.**, Lyons, T. and Mills, R. A. (2013). Diagenetic Mobilisation of Fe and Mn in Hydrothermal Sediments. *Mineralogical Magazine*. 77(5), 604.
- **Conway, T. M.**, John, S. G. and Rosenberg, A. D. (2012). Iron isotopes in the eastern North Atlantic. *Mineralogical Magazine*. 76, 1595.
- **Conway, T. M.** (2010). Solubility and Bioavailability of Iron from dust in Antarctic Ice Cores. PhD Thesis. University of Cambridge, Cambridge, UK.

### **Invited Presentations**

- Weber, T. S., DeVries, T., John, S. G., Bianchi, D., Deutsch, C. A., Tagliabue, A., Janssen, D., **Conway, T. M.** (2016). *Inverse modelling of GEOTRACES datasets – new insights into trace metal scavenging*. GEOTRACES and OCB workshop (Biogeochemical cycling of trace elements within the ocean: A synthesis workshop), Lamont Doherty Earth Observatory, NY, USA (01.08.16).
- **Conway, T. M.** (2016). *Stable Metal Isotopes In the Ocean: Results from the International GEOTRACES Program - Investigating the role of dust in the marine iron cycle using iron isotopes*. Institutskolloquium, Institute für Geologie und Mineralogie, University of Cologne (07.20.16).
- **Conway, T. M.** (2016). *Investigating the role of dust in the marine iron cycle using iron isotopes*. Seminar, Department of Chemistry, University of Kyoto (07.08.16).
- **Conway, T. M.**, Archer, C., Rosenberg, A. D., Adkins, J. F., John, S. G. and Vance, D. (2016) *Rapid-throughput MC-ICPMS techniques for analysis of multiple transition metal isotope ratios in seawater, and case studies from recent GEOTRACES cruises*. Session 17a, Goldschmidt Conference 2016, Yokohama (28.06.16).
- **Conway, T. M.** (2016). *Chalk Talk*. School of Oceanography, University of Washington (05.17.16).
- **Conway, T. M.** (2016). *Climate Change: lessons from the past*. Teaching Seminar, School of Oceanography, University of Washington (05.17.16).
- **Conway, T. M.** (2016). *Enhancing our understanding of the marine iron cycle (the role of dust) using iron isotopes*. Research Seminar, School of Oceanography, University of Washington (05.16.16).

- **Conway, T. M.** (2016) *How do Fe isotopes help us understand the role of atmospheric Fe in the marine Fe cycle?* Seminar, Department of Earth Sciences, University of Cambridge (06.16.16).
- **Conway, T. M.** (2016). *Enhancing our understanding of the marine iron cycle (the role of dust) using iron isotopes.* Seminar, College of Marine Science, University of South Florida (04.14.16).
- **Conway, T. M.** (2016). *How do Fe isotopes help us understand the role of atmospheric Fe in the marine Fe cycle?* Seminar, Center for Elemental Mass Spectrometry, Department of Earth Sciences, University of South Carolina. (02.19.16).
- Little, S. H., Vance D., Bridgestock, L. J., **Conway, T. M.**, Rehkämper, M., Van der Flierdt, T., John, S. G., McManus, J. F., and Severmann, S. (2015). *Isotope tracing of boundary fluxes.* Royal Society Workshop, UK (12.09.15).
- **Conway, T. M.** (2015). *Fe, Zn and Cd and their isotopes in the oceans.* Symposium, Institute of Geochemistry and Petrology, Department of Earth Sciences, ETH Zürich (10.26.15)
- **Conway, T. M.** (2015). *Using seawater Fe isotopes as a tracer.* Isochat Seminar, Institute of Geochemistry and Petrology, Department of Earth Sciences, ETH Zürich (02.19.15).
- **Conway, T. M.** and John, S. G. (2014). *Quantification of dissolved Fe sources to the North Atlantic Ocean.* Seminar, Department of Earth Sciences, University of Oxford (10.28.14).
- Janssen, D. J. **Conway, T. M.**, John, S. G. and Cullen, J. T. (2013). *An Undocumented Sink For Cd In Oceanic Oxygen Deficient Zones.* MPIC Seminar, Max-Planck Institute, Germany.
- **Conway, T. M.** (2013) *Sources of Fe to the North Atlantic: Insights from Fe isotopes.* Seminar, Woods Hole Oceanographic Institute. (10.18.13).
- **Conway, T. M.** (2013) *Sources of Fe to the North Atlantic: Insights from Fe isotopes.* Geobiology and Oceanography Seminar, Department of Earth, Atmospheric and Planetary Sciences. Massachusetts Institute of Technology. (10.17.13).
- **Conway, T. M.** (2013) *Sources of Fe to the North Atlantic: Insights from Fe isotopes.* Marine Science Departmental Seminar, Earth and Ocean Sciences, University of South Carolina. (09.06.13).
- **Conway, T. M.** (2012) *Marine Trace Metals - Motivation and Methodology.* CEMS Seminar, Center for Elemental Mass Spectrometry, University of South Carolina. (10.28.12).
- **Conway, T. M.** (2012) *Iron Isotopes In the North Atlantic.* Geology Departmental Seminar, Earth and Ocean Sciences, University of South Carolina. (10.25.12).
- **Conway, T. M.** (2009) *Aerosol Iron Solubility at the Last Glacial Maximum.* Departmental Seminar, Department of Chemistry, University of Otago, NZ. (08.09)
- **Conway, T. M.** (2007). *The Iron Hypothesis - Insights from Dust in Antarctic Ice Cores.* Departmental Seminar, Department of Earth Sciences, University of Cambridge, UK

### **Contributed Presentations**

- **Conway, T. M.**, Wolff, E. W., Röthlisberger, R., Mulvaney, R., and Elderfield, H. (2017). *Constraining a natural iron solubility baseline and soluble iron fluxes from dust to the Southern Ocean during glacial intervals.* ASLO Aquatic Sciences Meeting, Honolulu (submitted).
- Homoky, W. B., **Conway, T. M.**, John, S. G., Woodward, E. M. S., and Mills, R. A. (2017). *Shallow pore water iron isotope signatures spanning the depth of the South Atlantic Ocean.* ASLO Aquatic Sciences Meeting, Honolulu (submitted).
- Sieber, M., **Conway, T. M.**, Takano, S., Sohrin, Y., and Vance, D. (2016). *The role of the Antarctic oceans in controlling the distribution of Cd isotopes at lower latitudes in the South West Pacific.* The 14<sup>th</sup> Swiss Geoscience Meeting, Geneva (upcoming).
- **Conway, T. M.** (2016). *The Influence of Intermediate Waters on Lower Latitude TEI Cycling (AAIW and NPIW).* US GEOTRACES PMT Planning Meeting, La Jolla, San Diego.
- Homoky, W. B., Weber, T., Berelson, W. M., **Conway, T. M.**, Henderson, G. M., van Hulten, M., Jeandel, C., Severmann, S., Tagliabue, A. (2016). Highlights from an assessment of oceanic trace element and isotope exchange at the sediment-water boundary. Challenger Society Meeting, Liverpool.
- Sieber, M., **Conway, T. M.**, Takano, S., Sohrin, Y., and Vance, D. (2016) *The role of the polar oceans in controlling the distribution of Cd isotopes at lower latitudes in the South West Pacific.* Goldschmidt 2016, Yokohama.
- **Conway, T. M.**, Shelley, R. U., Aguilar-Islas, A. M., Landing, W. M., Mahowald, N. M., Sedwick, P. N., and John, S. G. (2016). *Tracing anthropogenic aerosol Fe sources in the North Atlantic Ocean using dissolved Fe isotope ratios.* ASLO Ocean Sciences 2016, New Orleans.

- Stichel, T., Lough, A., Homoky, W. B., Connelly, D. P., Klar, J., **Conway, T. M.**, John, S. G., and Mills, R. A. (2016). *Iron isotopes in bottom waters from the Bransfield Strait: Implications for deep water Fe supply*. ASLO Ocean Sciences 2016, New Orleans.
- **Conway, T. M.**, Homoky, W. B., Mills, R. A., and John, S. G. (2015) *Transfer of iron across the sediment-water interface: insights from iron isotopes*. Poster. Royal Society Workshop, UK.
- **Conway, T. M.**, Shelley, R. U., Aguilar-Islas, A. M., Landing, W. M., Mahowald, N. M. and John, S. G. (2015). *Fe isotope ratios as a tracer for anthropogenic aerosol sources*. Goldschmidt 2015, Prague.
- Homoky, W. B., **Conway, T. M.**, John, S. G., Hsieh, Y.-T., Hembury, D. J., Woodward, E. M. S., Henderson, G. M. and Mills, R. A. (2015). *Shallow pore water iron isotope signatures spanning the depth of the South Atlantic Ocean*. Goldschmidt 2015, Prague.
- John, S. G., Weber, T. S., **Conway, T. M.**, Deutsch, C. A., DeVries, T., Bruland, K. W., Cunningham, B. R., de Baar, H. J. W., Lohan, M. C., Middag, R., Roshan, S., Twining, B. S., Wu, J. and Wyatt, N. J. (2015). *Using a Global Model to Evaluate Processes that Control the Oceanic Zn Distribution*. Goldschmidt 2015, Prague.
- Stichel, T., Homoky, W. B., Connelly, D. P., Klar, J., **Conway, T. M.**, John, S. G. and Mills, R. A. (2015). *Iron isotopes in bottom waters from the Bransfield Strait: Implications for deep water Fe supply*. Poster. EGU 2015, Vienna.
- Homoky, W. B., **Conway, T. M.**, John, S. G., Hsieh, Y.-T., Hembury, D. J., Woodward, E. M. S., Henderson, G. M. and Mills, R. A. (2014). *Distinct iron isotope signatures of sediment dissolution are widespread in pore waters across the South Atlantic Ocean*. Challenger Meeting, Plymouth.
- **Conway, T. M.** and John, S. G. (2014). *Isotopic Insights on the Marine Zinc Cycle in the North Atlantic*. Goldschmidt 2014, Sacramento.
- **Conway, T. M.** and John, S. G. (2014). *Quantifying Sources of Iron to the Oceans Using Iron Isotopes*. Poster. Goldschmidt 2014, Sacramento.
- John, S. G. and **Conway, T. M.** (2014). *Scavenging of Zinc and Zinc isotopes onto Sinking Biological Material in the Upper Ocean*. Poster. Goldschmidt 2014, Sacramento.
- Cullen, J. T., Janssen, D., Christian, J., **Conway, T. M.** and John, S. G. (2014) *An Undocumented Water-column sink for cadmium in open ocean Oxygen Minimum Zones*. Poster. Goldschmidt 2014, Sacramento.
- John, S. G., **Conway, T. M.**, Janssen, D. and Cullen, J. T. (2014). *Cadmium Sulfide Formation in Low-Oxygen Waters of the North Atlantic*. Goldschmidt 2014, Sacramento.
- Lohan M. C., Wyatt, N. J., Milne, A., Middag, R. and **Conway, T. M.** (2014). Zinc distributions in the Atlantic Ocean: the use of a new tracer Zn\*. ASLO Ocean Sciences 2014, Honolulu.
- Rijkenberg, M. J. A., Middag, R., **Conway, T. M.** (2014). Bruland, K. W. and De Baar, H. J. W. *Excellent consistency of dissolved manganese, iron, cobalt, nickel, copper, zinc, cadmium and lead at the Bermuda crossover station of two GEOTRACES sections*. ASLO Ocean Sciences 2014, Honolulu.
- De Baar, H. J. W., **Conway, T. M.**, Middag, R., Noble, A. E. and Wyatt, N.J. (2014). *Geotraces 3D distribution of accurate concentrations of dissolved trace metals manganese, iron, nickel, zinc, cadmium and lead in the Atlantic Ocean*. ASLO Ocean Sciences 2014, Honolulu.
- John, S. G. and **Conway, T. M.** (2014). *The importance of scavenging in the marine biogeochemical cycling of zinc and zinc isotopes*. ASLO Ocean Sciences Meeting 2014, Honolulu.
- **Conway, T. M.** and John, S. G. (2013). Sources of Fe to the North Atlantic: Insights from Fe Isotopes. Goldschmidt Conference 2013, Florence.
- John, S.G., **Conway, T. M.\***, (2013) Casciotti, K., Sigman D., Rafter P. and Marconi, D. (2013). *Quantifying Nitrogen Fixation in the North Atlantic Using Paired Analyses of Cd and N Stable Isotopes*. Goldschmidt 2013, Florence. (\* presenter)
- Fitzsimmons, J. N., **Conway, T. M.**, John, S. G. and Boyle, E. A. (2013). *Iron Isotopes in Seawater from the Southeast Pacific and North Atlantic Oceans*. Goldschmidt 2013, Florence.
- Aquilina, A., Homoky, W. B., Hepburn, L. E., John, S. G., **Conway, T. M.**, Lyons, T. and Mills, R.A. (2013). *Diagenetic Mobilisation of Fe & Mn in Hydrothermal Sediments*. Goldschmidt 2013, Florence.
- John, S. G. and **Conway, T. M.** (2013). *Scavenging is key to the marine biogeochemical cycling of Zn*. Poster. Gordon Research Conference in Chemical Oceanography, Maine.
- Fitzsimmons, J. N., Carrasco, G. C., Boyle, E. A., Bundy, R., Wu, J., **Conway, T. M.** and John, S. G. (2013). *Marine dissolved iron partitioning into soluble and colloidal phases: an updated view*. Poster. Gordon Research Conference in Chemical Oceanography, Maine.
- **Conway, T. M.**, John, S. G. and Rosenberg, A. D. (2013). *Iron Isotopes from the NAZT*. GEOTRACES Data Workshop. Old Dominion University, Norfolk.

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- **Conway, T. M.**, John, S. G. and Rosenberg, A. D. (2012). *Dissolved  $\delta^{56}\text{Fe}$  in the Eastern North Atlantic (from the GEOTRACES A03 Transect)*. Goldschmidt 2012, Montreal.
- **Conway, T. M.**, John, S. G. and Rosenberg, A. D. (2012). *Preliminary iron isotope results from the GEOTRACES A03 (North Atlantic) transect & a new method for simultaneous determination of  $\delta^{56}\text{Fe}$ ,  $\epsilon^{114}\text{Cd}$  and  $\delta^{66}\text{Zn}$  ratios in seawater*. ASLO Ocean Sciences 2012, Salt Lake City.

### **Workshop Participation**

- *US GEOTRACES Pacific Meridional Transect planning meeting*, La Jolla, CA, USA October 2016.
- *Biogeochemical cycling of trace elements within the ocean: A synthesis workshop*. GEOTRACES & OCB. Lamont Doherty Earth Observatory, NY, USA. August 2016.
- *GEOTRACES Indian Ocean Planning Workshop*. Yokohama, Japan, June 2016.
- *Quantifying fluxes and processes of trace-metal cycling at ocean boundaries*. Royal Society. Chicheley Hall, Buckinghamshire, UK. December 2015.
- *Stable isotopes of biologically important trace metals*. Imperial College, London, UK. September 2013.
- *US GEOTRACES North Atlantic Section data workshop*. ODU, Norfolk, VA, USA. March 2013.
- *US GEOTRACES North Atlantic Section data workshop*. ODU, Norfolk, VA, USA. February 2011.