

Alexandra V. Turchyn

AVT25@CAM.AC.UK

Married, 3 Children (04/2006, 12/2008, 07/2012). Birthday 21 July 1974

Academic Employment History

- 2015 - Promoted to University Reader in Biogeochemistry, University of Cambridge
2007 - Appointed University Lecturer, Department of Earth Sciences, University of Cambridge
2010 - Appointed Staff Fellow and Director of Studies (Earth Sciences, First Year Natural Sciences (Physical)) - Trinity Hall, Cambridge
- 2005 - 2007 Miller Postdoctoral Research Fellow, Miller Institute for Basic Research, University of California at Berkeley. Sponsor: Professor Donald DePaolo
- Summer 2005 Postdoctoral Fellow, Harvard University, with Professor Daniel P. Schrag

Education

- 2000 - 2005 **HARVARD UNIVERSITY**, Cambridge, Massachusetts
Department of Earth and Planetary Sciences - PhD awarded April 2005
PhD title: **Oxygen Isotopes in Marine Sulfate and the evolution of the sulfur cycle over the past 140 million years**
- Teaching assistant for EPS 8, History of the Earth, Honored with Certificate of Distinction in Teaching
- 1993 - 1997 **PRINCETON UNIVERSITY**, Princeton, New Jersey
Magna Cum Laude, Department of Geosciences
Bachelor's thesis: **Determining Three-Dimensional Fault Shape from Earthquake Hypocenters**
- 1995 & 1997 **UNIVERSITY OF MICHIGAN** - Camp Davis, Jackson Wyoming, Summer
Introductory Geology Field Course and Graduate Level Geological Mapping Course
- 1992 - 1993 **OSWESTRY SCHOOL**, Oswestry, Shropshire, England
Post-graduate year awarded English Speaking Union Fellowship
- 1989 - 1992 **THE LAWRENCEVILLE SCHOOL**, Lawrenceville, New Jersey
High School Education - Graduated Cum Laude

Professional Work Experience

- 1997 - 2000 **SCHLUMBERGER OILFIELD SERVICES, Wireline & Testing**
Senior Field Engineer : Responsible for planning, execution and follow-up of offshore oilfield operations encompassing wireline, logging on drill pipe and coil tubing services. Data acquisition processing, and interpretation, management of multinational personnel and equipment.
- Acquired extensive experience in exploration logging operations
 - Achieved highest rank of nineteen engineers in specialized engineer training course, December 1997
 - Recognized through successive promotions to Field Engineer from Junior Field Engineer (February 1998), and to Senior Field Engineer from Field Engineer (November 1999)
 - Lead training and development of personnel, managed upkeep of radioactive sources needed in logging operations as Radiation Safety Officer, February - August 1998
 - Served as member of Accident Prevention Team February 1998 - August 1998, team analysed reported incidents to help prevent accidents and promote safety
 - Restructured the specification sheets to a tender resulting in 20 Million Dollars of work for Schlumberger. Commended for contribution to win, July 1999
 - Supervised the side of Schlumberger operations for BP-Amoco as a Desk Engineer. Created innovative data acquisition programs alongside geologists and petrophysicists, April 1999 - September 1999
 - Conducted research for implementation of next generation software as a STAR engineer for Austin Product Center, June 1999
 - Coordinated research on Optical Fluid Analysis with client Norsk Hydro, resulting in two papers published in proceedings for the 2000 and 2001 SPE annual technical conferences

Extracurricular Involvement

Supervisor (2010-current) Nuffield Bursary program for college students
Mentor, (2003 - 2005), Science club for Girls, Cambridge public schools
Mentor, (2003 - 2005), Harvard College Science Mentoring Program
Organizer, (2003) EPS Day, an informal gathering of graduate students, post docs, and faculty to share research
Mentor, (2001 - 2003), Snowdon Mentoring Program
President, (1995 - 1997), - Princeton University Women's Rugby Football Club (PUWRFC). Helped lead team to National Championship (won title - 1995, 1996)
Club Manager, (1995 - 1997), Princeton University Triangle Club
Emergency Medical Technician, (1995 - 1997), Princeton Rescue Squad
Leader and Leader Trainer, (1994 - 1997), Princeton University Outdoor Action

Awards and Fellowships

Elected Scholar of the Canadian Institute for Advanced Research, Earth System Evolution Program (2006)
Schlanger Ocean Drilling Fellowship awarded for one-year tenure (2004-2005)
Harvard University Merit Fellowship award recognizes graduate students whose all-around performance during their graduate study has been outstanding (2004-2005)
Department of Defence, American Society for Engineering Education Graduate Fellowship awarded for three-year tenure (2001-2004)
National Science Foundation Graduate Fellowship, Honorable Mention (2001)
Schlumberger Safety Award (1998)
Sigma Xi Scientific Research Society, Elected to Membership (1997)
The Alexandra B. Van Dusen Award created, for excellent commitment to Woman's rugby at Princeton (1997)
The Oswestry School Award, for the Senior Class member who gave back most to the community (1993)

Select Conference Presentations (First author or student first author only)

Rennie V.C.F., Paris G., Abramovich S., Sessions A., Adkins J.F., **Turchyn A.V.**, Insights into the Early Cenozoic ocean from coupled sulphur and carbon isotopes in foraminiferal calcite. Presented as a poster at Goldschmidt 2014, Sacramento, CA, USA

Sun X., Higgins J., **Turchyn A.V.**, Global importance of diffusive cation fluxes in deep-sea sediments for the geochemical cycles of calcium, magnesium, sodium, and potassium. Presented as a talk at Goldschmidt 2014, Sacramento CA, USA

Mills J.V., Antler G., **Turchyn A.V.**, Iron-mediated cryptic sulphur cycling in salt marsh sediments. Presented as a talk at Goldschmidt, 2014, Sacramento, CA, USA.

Antler G., Bosak T., Ono S., Sivan O., and **Turchyn A.V.**, Combined S-33 and O-18 Isotope tracing of Intracellular sulphur metabolism during Microbial sulfate reduction. Presented as a poster at the EGU annual meeting, Vienna, Austria.

Mills J.V., Antler G., **Turchyn A.V.**, Microbially mediated iron-sulfur coupling in salt marsh sediments. Presented as a poster at the EGU annual meeting, Vienna Austria

Turchyn A.V., Bennett V.A.S., Hodell D.A., Isotope evidence for the microbially mediated formation of elemental sulfur: A case study from Lake Peten Itza, Guatemala. Presented as a talk at the AGU Fall meeting, 2013, San Francisco, CA USA

Rennie V., Paris G., Adkins J., **Turchyn A.V.**, A new Cenozoic record of sulfur isotopes from foraminiferal calcite. Presented as a talk at Goldschmidt 2013, Florence Italy

Turchyn A.V., Bishop T., Sivan O., The formation of elemental sulfur nodules; a modified 'thiosulfate shunt' in unique environments. Presented as a talk at Goldschmidt 2013, Florence Italy

Antler G., **Turchyn A.V.**, Davies A., Adler M., Rennie V., Herut B., Sivan O. Sulfate-oxygen isotope insight into anaerobic methane oxidation in estuarine sediments. Presented as a poster at Goldschmidt 2013, Florence Italy

Sun X. and **Turchyn A.V.** The global flux of calcium into and out of marine sediments. Presented as a poster at Goldschmidt 2013, Florence Italy

Turchyn A.V., Edmonds M.E., Johnston F.K.B., Decarbonation efficiency in modern subduction zones and the source of high Cretaceous pCO_2 , **Invited talk**, American Geophysical Union, Fall Meeting 2011, San Francisco

Turchyn A.V., Tipper E.T., Galy A., Lo J-K., Bickle M.J., Sulfur and oxygen isotope evidence for secondary sulfide precipitation in the Marsyandi River, Nepal, Himalaya. Presented as a talk at the AGU Fall Meeting, December 2011, San Francisco

Antler G., **Turchyn A.V.**, Rennie V., Herut B., Sivan O., Mechanics of bacterial sulfate reduction deduced from sulfur and oxygen isotopes in pore fluid sulfate. Presented at Goldschmidt 2011, Prague.

Tostevin R., **Turchyn A.V.**, Smith A.G., Zori M., Howe C.J., Lea-Smith D.J. Oxygen Isotope Modification through assimilatory sulfur cycling. Presented at Goldschmidt 2011, Prague.

Rennie V. and **Turchyn A.V.**, Constraining the Fidelity of Sulfate-Oxygen in the geological Record. Presented at Goldschmidt 2011, Prague.

Turchyn A.V., Bishop J.K.B., Schrag D.P., Variability in the oxygen isotope composition of sulfate in the modern Open Ocean, **Invited Talk**, AGU Fall Meeting, 2009, San Francisco

Turchyn A.V., Payne J.L., Paytan A., DePaolo D.J., Coupled Calcium and Carbon Isotopes in the Aftermath of the Permo-Triassic Extinction. Presented as a talk at the AGU Fall meeting, 2009, San Francisco

Turchyn A.V., J. C. Alt, S. T. Brown, D. J. DePaolo, R. M. Coggon, G Chi, T. Skulski, J.H. Bedard (2009) Reconstructing Hydrothermal vent chemistry through Analysis of Vein Minerals., Presented at the 2009 Goldschmidt Meeting, Davos, Switzerland, *Geochimica et Cosmochimica Acta* Vol. 73 A1353 Supplement

Turchyn A.V., Schrag D.P., Coccioni R., and Montanari A. (2007) Sulfur and Oxygen Isotope Variability across Cretaceous Ocean Anoxic Events, *Eos Trans AGU*, 88(52) Fall Meeting Supplement, Abstract PP21A-05 **Invited Talk**

Turchyn A.V., DePaolo D.J., Steefel C.I., and Schrag D.P., Effect of Rapid Calcite Deposition on Carbonate Associated Sulfate and Calcium Isotopes. Presented at the 2007 Goldschmidt Meeting, Cologne Germany, August 2007. Abstract: *Geochimica et Cosmochimica Acta* Vol. 71, pp. A1042, Supplement S, 2007, Talk

Turchyn A.V., Hurtgen M.T., Schrag D.P., and Lyons T. (2006) The Oxygen Isotope Composition of Carbonate-Associated Sulfate: Evaluating the Efficacy of a Relatively New Paleo-oceanographic Proxy, *Eos Trans. AGU* 87(52) Fall Meeting Supplement, Abstract PP12B-07, Talk

Turchyn A.V., Sivan O., and Schrag D.P. (2005) Oxygen Isotopes in Porewater Sulfate, evidence for unexpected sulfur cycling, *Eos Trans. AGU* 86(52) Fall Meeting Supplement, Abstract B31A-0978, Poster

Turchyn A.V., Schrag D.P., Coccioni R., and Moore, F., Oxygen Isotopes in Sulfate across Cretaceous Ocean Anoxic Events, presented at the Geological Society of America Earth System Processes 2 conference, Calgary, Alberta, August 2005, Talk

Turchyn A.V. and Schrag D.P., Oxygen Isotope Measurements of Marine Sulfate, *Abstracts of Papers of the American Chemical Society* Vol. 229: U890 055 GEOC Part 1, March, 2005, **Invited talk**

Turchyn A.V. and Schrag D.P. (2004) The Carbon and Sulfur Cycles through the Cenozoic: Insight from Oxygen Isotopes in Marine Sulfate, *Eos Trans. AGU*, 85(47), Fall Meeting Supplement, Abstract PP11A-0551, Poster

Turchyn A.V. and Schrag D.P., Marine Sulfur cycle dynamics, a new view through oxygen isotopes, presented at the 2004 Goldschmidt Conference, Copenhagen, Denmark, June 2004, Abstract: *Geochimica et Cosmochimica Acta*, Vol. 68 (11), Supplement 1, A334, 2004, Talk

Turchyn A.V. and Schrag D.P. (2003) Oxygen Isotopes in Marine Sulfate: Reassessing the Sulfur Cycle over the Past 10 million years, *Eos Trans. AGU* 85 (46), Fall Meeting Supplement, U52B-04, Talk

Andrews R.J., Beck G., Casteljins K., Chen A., Cribbs M.E., Fadnes F.H., Williams S., Irvine-Fortescue J., Hashem M., Jamaluddin A., Kurkjian A., Sass B., Mullins O.C., Rylander E., and **Van Dusen A.**, Quantifying Contamination Using Color of Crude and Condensate, *Oilfield Review*, Autumn 2001, pp. 24-43

Fadnes F.H., Irvine-Fortescue J., Williams S., Mullins O., and **Van Dusen A.**, Optimization of Wireline Sample Quality by Real-Time Analysis of Oil-Based Mud Contamination - Examples from North Sea Operations, SPE 71736, presented as a poster at the SPE Annual Technical Conference and Exhibition, New Orleans, Louisiana, October 2001

Van Dusen A., Williams S., Fadnes F.H., and Irvine-Fortescue J., Determination of Hydrocarbon Properties by Optical Analysis during Wireline Fluid Sampling, paper 63252 presented as a poster at the SPE Annual Technical Conference and Exhibition, Dallas, Texas, October 2000

Peer Reviewed Publications

Mills J.V., Antler G.A., **Turchyn A.V.**, Geochemical evidence for cryptic sulfur cycling in salt marsh sediments, accepted *Earth and Planetary Science Letters*. 2016

Jeans C.V., **Turchyn A.V.**, Hu X-F., Sulfur isotope patterns of iron sulfide and barite nodules in the Upper Cretaceous Chalk of England and their regional significance in the origin of coloured chalks. *Acta Geologica Polonica* Vol 66 No. 2 pp 227-256. DOI: 10.1515/agp-2016-0010. 2016

Chen F., **Turchyn A.V.**, Kampman N., Hodell D.A., Gazquez-Sanchez F., Maskell A., Bickle M., Isotopic Analysis of Sulfur Cycling and Gypsum Vein Formation in a Natural CO₂ Reservoir, *Chemical Geology*, Vol 436, pp. 72-83, [doi:10.1016/j.chemgeo.2016.04.015](https://doi.org/10.1016/j.chemgeo.2016.04.015) 2016

Turchyn A.V., Antler G.A., Byrne D.J., Miller M., Hodell D.A. Microbial sulfur metabolism evidenced from pore fluid isotope geochemistry at Site U1385, *Global Planetary Change* doi:10.1016/j.gloplacha.2016.03.004, 2016

Sun X., Higgins J.A., **Turchyn A.V.** Diffusive cation fluxes in deep-sea sediments and insight into the global geochemical cycles of calcium, magnesium, sodium and potassium. *Invited Review, Marine Geology* Vol 373 pp 64-77, [doi:10.1016/j.margeo.2015.12.011](https://doi.org/10.1016/j.margeo.2015.12.011) 2016.

Keller M.A., Zylstra A., Castro C., **Turchyn A.V.**, Griffin J.L., Ralser M., Conditional iron and pH-dependent activity of a non-enzymatic glycolysis and pentose phosphate pathway, *Science Advances* Vol 2(1), e1501235, DOI: 10.1126/sciadv.1501235- 2016.

Lea-Smith D.J., Biller S.J., Davey M.P., Cotton C.A.R., Perez Sepulveda B.M., **Turchyn A.V.**, Scanlan D.J., Smith A.G., Chisholm S.W., Howe C.J., Major contribution of cyanobacterial alkane production to the ocean hydrocarbon cycle. *Proceedings of the National Academy of Sciences (PNAS)* Vol 114, No. 44. Pp 13591=13596, doi: 10.1073/pnas.1507274112 - 2015.

Evans N.P., **Turchyn A.V.**, Gazquez F., Bontognali T.R.R., Chapman H.J., Hodell D.A. Coupled measurements of $\delta^{18}\text{O}$ and δD of hydration water and salinity of fluid inclusion in gypsum from the Messinian Yesares Member, Sorbas Basin (SE Spain), *Earth and Planetary Science Letters* Vol 430, pp 499-510, [doi:10.1016/j.epsl.2015.07.071](https://doi.org/10.1016/j.epsl.2015.07.071) 2015.

Knossow N., Blonder B., Eckert W., **Turchyn A.V.**, Antler G., Kamyshny Jr. A., Annual sulfur cycle in a warm monomictic lake with sub-millimolar sulfate concentrations. *Geochemical Transactions*, Vol 16 No 7 doi: 10.1186/s12932-015-0021-5, 2015

Antler G., **Turchyn A.V.**, Sivan O., Herut B., A unique isotopic fingerprint of sulfate-driven anaerobic oxidation of methane. *Geology* Vol 43. No. 7, pp 619-622, doi:10.1130/G36688.1. 2015

Sivan O., Antler G., **Turchyn A.V.**, Marlow J., Orphan V.J. Iron oxides stimulate sulfate driven anaerobic methane oxidation in seeps. *Proceedings of the National Academy of Sciences*. doi:10.1073/pnas.1412269111. 2014.

Avrahamov N., Antler G., Yechieli Y., Gavrieli I., Joye S., **Turchyn A.V.**, Sivan O., Anaerobic oxidation of methane by sulfate in hypersaline groundwater of the Dead Sea aquifer. *Geobiology*, DOI: 10.1111/gbi.12095. 2014

Tostevin R., **Turchyn A.V.**, Bishop J.K., Eldridge D., Farquhar J., Johnston D.T., Multiple sulfur isotope constraints on the sulfur cycle in the modern ocean. *Earth and Planetary Science Letters*, Vol. 396, pp. 14-21, <http://dx.doi.org/10.1016/j.epsl.2014.03.057> - 2014

Keller M., **Turchyn A.V.**, Ralser M., Non-enzymatic glycolysis and pentose phosphate pathway-like reactions in the plausible Archean ocean. *Molecular Systems Biology*. Vol. 10 (4) 725, DOI: 10.1002/msb.20145228 - 2014

Rennie V.C.F. and **Turchyn A.V.**, The preservation of $\delta^{34}\text{S}_{\text{SO}_4}$ and $\delta^{18}\text{O}_{\text{SO}_4}$ in Carbonate-Associated Sulfate during marine diagenesis: a 25 Myr test case using marine sediments. *Earth and Planetary Science Letters*, Vol 395, pp 13-23, <http://dx.doi.org/10.1016/j.epsl.2014.03.025> 2014

Rennie V.C.F. and **Turchyn A.V.**, Controls on the abiotic exchange between aqueous sulfate and water under laboratory conditions. *Limnology and Oceanography: Methods*. Vol. 12 pp 166-173. [10.4319/lom.2014.12.166](http://dx.doi.org/10.4319/lom.2014.12.166) - 2014

Antler G., **Turchyn A.V.**, Herut B., Davies A., Rennie V.C.F., Sivan O., Sulfur and oxygen isotope tracing of sulfate driven anaerobic methane oxidation in estuarine sediments. *Estuarine, Shelf, and Coastal Science*, Vol. 142. pp. 4-11. ISSN 0272-7714, ESSN: 1096-0015. 2014

Sun X. and **Turchyn A.V.** Significant contribution of authigenic carbonate to marine carbon burial. *Nature Geoscience*, Vol 7 No. 3 pp 201-204. doi:10.1038/ngeo2070. 2014

Kampman N., Maskell A., Chapman H.J., Bickle M.J., Evans J.P., Purser G., Zhou Z., Gattacceca J., Schaller M., Bertier P., Chen F., **Turchyn A.V.**, Assayag N., Rochelle C., Busch A., Drilling and Sampling a natural CO₂ reservoir: Implications for fluid flow and CO₂-fluid-rock reactions during CO₂ migration through the overburden. *Chemical Geology*, Vol 369 pp 51-82, DOI: dx.doi.org/10.1016/j.chemgeo.2013.11.015. 2014.

Rubin M., Antler G., **Turchyn A.V.**, Tsadok R., Shemesh E., Goodman-Tchernov B., Austin Jr. J., Coleman D., Sivan O., Tchernov D. Hydrocarbon related microbial processes in the deep sediments of the Eastern Mediterranean Levantine Basin. *FEMS Microbiology Ecology*, DOI: 10.1111/1574-6941.12264. 2013

Carazzo G., Jellinek A.M., **Turchyn A.V.** The remarkable longevity of submarine plumes: Implications for the hydrothermal input of iron to the deep-ocean. *Earth and Planetary Science Letters*, Vol 382 pp 66-76. <http://dx.doi.org/10.1016/j.epsl.2013.09.008>. 2013

Bishop T, **Turchyn A.V.**, Sivan O. Fire and Brimstone: The Microbially Mediated Formation of Elemental Sulfur Nodules from an Isotope and Major Element Study in the Paleo-Dead Sea. *PLoS ONE*, 8(10): e75883. doi:10.1371/journal.pone.0075883. 2013

Turchyn A.V., Alt J.C., Brown S.T., DePaolo D.J., Coggon R.M., Chi G., Bedard J., Skulski T., Reconstructing the oxygen isotope composition of Late Cambrian and Cretaceous hydrothermal vent fluid. *Geochimica et cosmochimica acta*, Vol. 123, pp.440-458. <http://dx.doi.org/10.1016/j.gca.2013.08.015>, 2013.

Yallup C., Edmonds M., **Turchyn A.V.**, Sulfur degassing due to contact metamorphism during flood basalt eruptions. *Geochimica et Cosmochimica acta*, Vol. 120, 263-279. <http://dx.doi.org/10.1016/j.gca.2013.06.025>. 2013

Antler G., **Turchyn A.V.**, Rennie V., Herut B., Sivan O., Coupled sulfur and oxygen isotope insight into bacterial sulfate reduction in the natural environment. *Geochimica et Cosmochimica Acta*, Vol 118, pp 98-117. <http://dx.doi.org/10.1016/j.gca.2013.05.005>. 2013.

Turchyn A.V., Tipper E.T., Galy A., Kai-Lo J., Bickle M.J., Isotope evidence for secondary sulfide precipitation along the Marsyandi River, Nepal, Himalayas. *Earth and Planetary Science Letters*, Vol 374, 36-46. <http://dx.doi.org/10.1016/j.epsl.2013.04.033.i2013>

Alt J.C., Garrido C.J., Shanks III W.C., **Turchyn A.V.**, Patron-Navarta J.A., Sanches-Vizcaino V.L., Gomez Pugnaire M.T., Marchesi C., Recycling of water, carbon and sulfur during subduction of serpentinites: A stable isotope study of Cerro del Almirez, Spain. *Earth and Planetary Science Letters*, Vol. 327-328, pp 50-60. doi:[10.1016/j.epsl.2012.01.029](https://doi.org/10.1016/j.epsl.2012.01.029). 2012

Hodell D.A., **Turchyn A.V.**, Wiseman C.J., Escobar J., Curtis J.H., Brenner M., Gilli A., Mueller A.D., Anselmetti F., Ariztegui D., Brown E., Late Glacial temperature and precipitation changes in the lowland Neotropics by tandem measurement of $\delta^{18}\text{O}$ in biogenic carbonate and gypsum hydration water. *Geochimica et Cosmochimica Acta*, Vol., 77, pp. 352-368, doi:[10.1016/j.gca.2011.11.026](https://doi.org/10.1016/j.gca.2011.11.026). 2012

Turchyn A.V. and DePaolo D.J. - Calcium isotope evidence for suppression of carbonate dissolution in carbonate-bearing organic-rich sediments, *Geochimica et Cosmochimica Acta*, Vol. 75 (No 22) pp 7081-7098 doi:[10.1016/j.gca.2011.09.014](https://doi.org/10.1016/j.gca.2011.09.014). 2011

Johnston F.B.K., **Turchyn A.V.**, and Edmonds M., Decarbonation efficiency in subduction zones: Implications for the warm cretaceous climate. *Earth and Planetary Science Letters*, Vol. 303, pp 143-152. [10.1016/j.epsl.2010.12.049](https://doi.org/10.1016/j.epsl.2010.12.049) - 2011

Payne J.L., **Turchyn A.V.**, Paytan A., DePaolo, D.J., Lehrmann D.J., Yu Y., Wei J., A Calcium isotope excursion in marine carbonates across the end-Permian extinction horizon. *Proceedings of the National Academy of Sciences (PNAS)* Vol. 107 (No. 19), 8543-8548, doi: [10.1073/pnas.0914065107](https://doi.org/10.1073/pnas.0914065107) - 2010

Turchyn A.V., Brüchert V., Lyons T.W., Engel G.S., Balci N., Schrag D.P., Brunner B., Kinetic oxygen isotope effects during dissimilatory sulfate reduction: a combined theoretical and experimental approach. *Geochimica et Cosmochimica Acta*, Vol. 74 (No. 2010), 2011-2024, doi: [10.1016/j.gca.2010.01.004](https://doi.org/10.1016/j.gca.2010.01.004) - 2010

Korbar T., Montanari A., Koch G., Mariani S., DePaolo D.J., **Turchyn A.V.**, Miknic M., Tari T., Geologic reconnaissance of the Island of Velika Palagruza (Central Adriatic, Croatia), *Geologia Croatica*, Vol. 62 (2) pp. 75-94, 2009. doi: [10.4154/gc.2009.07](https://doi.org/10.4154/gc.2009.07)

Turchyn A.V., Schrag D.P., Coccioni R., Montanari A., Stable Isotope Analysis of the Cretaceous Sulfur Cycle, *Earth and Planetary Science Letters*, Vol. 285 (1-2) pp.115-123, doi: [10.1016/j.epsl.2009.06.002](https://doi.org/10.1016/j.epsl.2009.06.002) 2009

Mikucki J.A., Pearson A., Johnston D.T., **Turchyn A.V.**, Farquhar J., Schrag D.P., Anbar A.D., Prisco J.C., Lee P.A., A contemporary microbially-maintained subglacial ferrous 'ocean'. *Science*, Vol. 324 no. 5925, pp. 397-400, doi: [10.1126/science.1167350](https://doi.org/10.1126/science.1167350) 2009.

Turchyn A.V., Sivan O., and Schrag D.P., Oxygen isotopic composition of sulfate in deep sea pore fluid: Evidence for rapid sulfur cycling, *Geobiology*, Vol 4, pp. 191-201, doi: [10.1111/j.1472-4669.2006.00079.x](https://doi.org/10.1111/j.1472-4669.2006.00079.x) - 2006

Turchyn A.V. and Schrag D.P., Cenozoic evolution of the sulfur cycle; Insight from oxygen isotopes in marine sulfate, *Earth and Planetary Science Letters*, Vol. 241, pp.763-779, doi: [10.1016/j.epsl.2005.11.007](https://doi.org/10.1016/j.epsl.2005.11.007) 2006

Turchyn, A.V. and Schrag D.P., Oxygen Isotope Constraints on the Sulfur Cycle over the Past 10 million years, *Science*, Vol. 303 (5556), p.2004-2007, doi: [10.1126/science.1092296](https://doi.org/10.1126/science.1092296) 2004

Van Dusen A., Williams S., Fadnes F.H., and Irvine-Fortescue J., Determination of Hydrocarbon Properties by Optical Analysis During Wireline Fluid Sampling, *SPE Reservoir Evaluation and Engineering*, p. 286-292, August 2003

Current and Past Funding

NERC NE/H011595/1 (£25,831) - Analytical Development of sulphur isotope analysis on small (1 μg) sulphur samples. 4/2010 - 3/2011. Principal Investigator.

NERC NE/H012648/1 (£32,336) - A new look at the volatile output from large floor basalt eruptions. 8/2010 - 7/2011. Co-Investigator.

Royal Society Research RG 100470 (£15,000) - Energy use in the deep biosphere; stable isotope insight into microbial growth and interactions. 10/2010 - 9/2011. Principal Investigator.

British Council BIRAX - BY2/GEO/04 (£27,500) - Exploring the natural sink of the greenhouse gas methane via sulphate reduction using carbon, sulphur and oxygen isotopes. 1/2011 - 12/2011. Co- Principal Investigator.

NERC NE/I016716/1 (£42,335) Analytical development of the use of the isotopic composition of gypsum hydration water as a paleoclimate tool. 4/2010 - 3/2011. Co-Investigator

Leverhume Visiting Professor (£36,243) The Preservation of Barite in the Marine Environment over Earth History. 5/2011 - 9/2011. Principal Investigator and Host for Professor Timothy Lyons.

NERC (NE/J017930/1 - £16,965) Isotope insight into microbial processes on the North Pond Leg, IODP expedition 336. 3/2012 - 6/2012. Principal Investigator

European Research Council, Starting Investigator Grant, Principle Investigator. (1,954,000 Euro) - Life Beneath the Ocean Floor: The subsurface Sink of Carbon in the Marine Environment. Awarded June 2012 for 5 years commencing December 2012.

Membership/Service in Professional Organizations

Member of the steering committee for the Marine Studies Group of the Geological Society, 2012-current

Member of the Editorial Board, GeoResJ, 2013-current

Member of the Editorial Board, Geology. 2007-2009

Scholar in the Canadian Institute for Advanced Research, Earth System Evolution Program - since 2006

American Chemical Society (ACS) - Member 2004-2006

American Geophysical Union (AGU) - Member since 2000

Geological Society of America (GSA) - Member since 2000

Society of Petroleum Engineers (SPE) - Member 1998-2002

Sigma Xi, Scientific Research Society - Member since 1997

Talks:

September 2004	MIT Chemical Oceanography Seminar
October 2004	Oxford University, Geochemistry Seminar
October 2004	Max Plank Institute- Microbiology - Bremen, Germany, Departmental Seminar
November 2004	Boston University, Paleoclimate Seminar
January 2005	University of Chicago, Departmental Seminar
February 2005	U.C. Berkeley, Isotope Geochemistry Seminar
April 2005	INVITED CONFERENCE TALK - American Chemical Society Annual Meeting
July 2005	Woods Hole Oceanographic Institute, Marine Chemistry and Geochemistry Seminar
July 2005	Lamont Doherty Earth Observatory, Departmental Seminar
September 2005	Canadian Institute of Advanced Research, ESEP meeting, Montreal, Canada
November 2005	MIT Departmental Seminar
January 2006	Stanford University Ocean Sciences Seminar
January 2006	U.C. Santa Cruz, Whole Earth Seminar Series
June 2006	Oxford University Biogeosciences Lectureship Seminar
July 2006	Cambridge University Lectureship seminar
June 2007	U.C. Irvine, Departmental Seminar Series
September 2007	University of Southern California, Paleobiology Seminar series
December 2007	INVITED CONFERENCE TALK - American Geophysical Union Fall Meeting
February 2008	Bullard Geophysical Colloquium Series
April 2008	Turner Departmental Lecture, University of Michigan
April 2008	Logan Club Lecture, Geological Survey of Canada, Ottawa, Canada
May 2008	University of Chicago, Departmental Seminar
May 2009	BP-Institute Weekly Seminar, Cambridge, UK
December 2009	INVITED CONFERENCE TALK - American Geophysical Union Fall meeting
November 2010	University College London, Departmental seminar
April 2011	Ben Gurion University, Beer Sheeva Israel, Departmental Seminar
April 2011	Hebrew University, Jerusalem, Israel, Departmental seminar
May 2011	Newcastle University, Newcastle, UK, Departmental Seminar
December 2011	INVITED CONFERENCE TALK - American Geophysical Union Fall meeting
April 2012	Open University, Milton Keynes, Departmental Seminar
May 2012	Oxford University, Oxford, UK, Departmental Seminar
May 2012	University of Leeds, Leeds, UK, Seminar as part of PaleoDay
September 2012	KEYNOTE - UKIODP Conference, University of Oxford
October 2012	University of East Anglia, Departmental Seminar
February 2013	University of Southampton, Departmental Seminar

November 2013	KEYNOTE Lecture, Annual General Meeting, London Petrophysical Society
January 2014	Weizmann Institute, Rehovot Israel, Departmental Seminar
January 2014	Imperial College London, Departmental Seminar
February 2014	University of Durham, Departmental Seminar
February 2014	Centre de Petrographique et Reserches Geochemie (CPRG), Institutional Seminar, Nancy, France
May 2014	University of Bristol, Department of Physical Geography Departmental Seminar
May 2014	University of Bristol, Department of Earth Sciences, Departmental Seminar
June 2014	KEYNOTE - Invited to Goldschmidt conference (declined due to examining commitments)
January 2016	Trinity College Dublin, Dublin, Ireland - Departmental Seminar
February 2016	INVITED CONFERENCE DISCUSSION LEADER - Gordon Research Conference - Geobiology
February 2016	Brögger Seminar Series Seminar, Stockholm University, Sweden
March 2016	Oxford University, Oxford UK, Departmental Seminar
March 2016	Geomicrobiology Group Seminar, Aarhus University, Aarhus, Denmark
April 2016	KEYNOTE - McLuhan Symposium, Trinity Hall, University of Cambridge