

CURRICULUM VITAE

MATTHEW A. CHARETTE

Chemical Oceanographer/Groundwater Hydrogeochemist

Senior Scientist

Department of Marine Chemistry and Geochemistry

Woods Hole Oceanographic Institution

Woods Hole, MA 02543 USA

Tel: (508) 289-3205

Fax: (508) 457-2193

E-mail: mcharette@whoi.edu

Education:

B.Sc. Chemical Oceanography, Florida Institute of Technology, Melbourne, FL, 1994.

Ph.D. Chemical Oceanography, Graduate School of Oceanography, University of Rhode Island, Kingston, RI, Thorium-234 as a Tracer of the Oceanic Export of Particulate Organic Carbon, 1998; Advisor, Dr. S. Bradley Moran.

Professional Experience:

-Research and Teaching Assistant, Graduate School of Oceanography, University of Rhode Island, September 1994 to September 1998.

-Postdoctoral Fellow in Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution, Woods Hole, MA, October 1998 to September 1999; Advisor, Dr. Ken O. Buesseler.

-Postdoctoral Investigator, Department of Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution, Woods Hole, MA, October 1999 to April 2000.

-Fellow of the Coastal Ocean Institute, Woods Hole Oceanographic Institution, Woods Hole, MA, June 2001 to June 2004.

-Assistant Scientist, Department of Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution, Woods Hole, MA, May 2000 to May 2004.

-Associate Scientist, Department of Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution, Woods Hole, MA, May 2004 to October 2007.

-Associate Scientist (tenured), Department of Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution, Woods Hole, MA, October 2007 to October 2011.

-Senior Scientist, Department of Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution, Woods Hole, MA, October 2011 to present.

Honors and Awards:

-Distinguished Visiting Scholar, State Key Laboratory of Marine Environmental Science, Xiamen University, 2011.

-Outstanding Reviewer, *Limnology and Oceanography*, 2007.

-Coastal Ocean Institute Fellowship, Woods Hole Oceanographic Institution, 2001.

-Woods Hole Oceanographic Institution Postdoctoral Fellowship, 1998

-Corless Prize for Outstanding Seminar of the Year, University of Rhode Island, 1996.

-Colicci Award for Achievement in Ocean Engineering Design, University of Rhode Island, 1996.

-Outstanding Student in Oceanography, Florida Institute of Technology, 1994.

-Outstanding Student in Oceanography, Florida Institute of Technology, 1993.

-American Chemical Society's Outstanding Student in Analytical Chemistry, Florida Institute of Technology, 1993.

Professional Affiliations:

American Geophysical Union
American Society of Limnology and Oceanography
Estuarine Research Federation
Geochemical Society

Research Interests:

- The impact of groundwater-seawater interaction in coastal aquifers on geochemical cycles in the coastal ocean.
- Radionuclides as tracers of marine processes such as submarine groundwater discharge, glacial meltwater, water mass transport, and oceanic particle cycling.
- Developing *in situ* instrumentation for investigating the aforementioned processes.

Professional Activities:

WHOI (Non Education Related)

Committees

- Chair, Radiation Safety Committee, 2005-present.
- Retirement Investment Committee, 2010-present.
- co-Chair, Retirement Task Force, 2009.
- Executive Committee of the Retirement Task Force, 2008-2009.
- Office of Applied Oceanography Steering Committee, 2006-2007.
- Retirement Task Force, 2005; 2007-2009.
- Radiation Safety Committee, 2003-present.

Proposal Reviewer

WHOI Green Technology Awards
Ocean Climate Change Institute

Other

- Organized a special seminar series "*Challenges in Coastal Groundwater Research*" at Woods Hole Oceanographic Institution. Spring 2000.
- Tuesday Noontime Seminar Coordinator, Department of Marine Chemistry and Geochemistry, 2001-2002; 2008-2009.
- Mentorship committee member: Liz Kujawinski (chair), Deirdre Toole, John (Chip) Breier, Alec Wang, Amanda Spivak (chair).
- Promotion committee chair: Rich Camilli

Outside WHOI (Other than Attendance at Society/National Meetings):

Committees

- Member, IAPSO-IAHS Joint Commission on Groundwater-Seawater Interactions, May 2003-present.
- Representative/Board Member, Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI), December 2003-present.

-Member, Antarctic Research Vessel Oversight Committee (ARVOC), August 2008-present.

Thesis/dissertation committees

-Maximilian Mandl, M.S. Candidate, University of Wyoming
-Qian Liu, Ph.D. Candidate, Xiamen University
-Tim Moloney, M.S. (2011), University of Wyoming
-Rebecca Hays, Ph.D. (2010), University of Delaware
-Gabrielle Tomasky, Ph.D. (2007), Boston University Marine Program
-Claudette Spiteri, Ph.D. (2007), University of Utrecht
-Kanchan Maiti, Ph.D. (2007) University of South Carolina
-Aaron Beck, Ph.D. (2007) SUNY-Stony Brook
-Alicia Loveless, Ph.D. (2006) University of Western Australia
-Marci Cole, Ph.D. (2003) Boston University Marine Program

Journal Reviewer

Journal of Marine Systems, Deep-Sea Research I, Marine Chemistry, Geochimica et Cosmochimica Acta, Journal of Coastal Research, Biological Bulletin, Deep-Sea Research II, Arctic, Ground Water, Hydrogeology Journal, Reviews in Mineralogy and Geochemistry, Limnology and Oceanography, Geophysical Research Letters, Estuarine Coastal and Shelf Science, Continental Shelf Research, Journal of Environmental Radioactivity, Journal of Environmental Chemistry, Limnology and Oceanography: Methods, Earth and Planetary Science Letters, Journal of Geophysical Research, Chemical Geology, Groundwater Monitoring and Remediation, Applied Geochemistry, Environmental Science and Technology, Water Research, Journal of Hydrology, Progress in Oceanography,

Proposal Reviewer

National Science Foundation (CO, MG&G, CCSP, OPP, Hydrologic Sciences, Int'l Programs, Water Cycle Research, Carbon Cycle), NOAA-CICEET, Rhode Island Sea Grant, Florida Sea Grant, Delaware Sea Grant, Texas Sea Grant, US-Israel Bi-national Science Foundation

Panelist

National Science Foundation-Chemical Oceanography Program
NOAA-Sea Grant-New Hampshire Sea Grant

Leadership and Outreach

-Chair and Organizer, International Symposium on “*Synthesis and Modeling of Southern Ocean Natural Iron Fertilization*”, Woods Hole Oceanographic Institution, June 2011.
-Guest Editor, *Marine Chemistry*, special issue on “Radium Isotopic Tracers in Marine Systems”, April 2008.
-Chaired a special session on “*Biogeochemistry*”, ASLO 2007, Santa Fe, NM.
-Organized and chaired a special session on “*Radionuclides as Tracers of Geochemical Processes From Blue Water to the Land/Ocean Interface*”, AGU/ASLO 2006 Ocean Sciences Meeting, Honolulu, HI.
-Vice-Chair: Gordon Research Conference on *Permeable Sediments* (June 2006)

- Workshop Moderator, “Application of Sensor Technology to Assessing Groundwater-Surface Water Interactions in the Coastal Zone”, Sponsored by NOAA-Alliance for Coastal Technology, Savannah, GA, March 2005.
- Directed a three-day field program at Waquoit Bay for Bowdoin College undergraduates (10 students); Course Title: *Coastal Oceanography*. Conducted a follow up visit to Bowdoin College in to discuss data interpretation with the class, April 2003.
- Organized and chaired a special session on “*Groundwater-Surface Water Interactions*”, ASLO 2003, Salt Lake City, UT.
- Invited Workshop Participant: “*Nitrogen Loading in the Gulf of Maine*”. Portsmouth, NH, November 2001.
- Invited Workshop Participant: SCOR Working Group 112 on Submarine Groundwater Discharge, University of Catania, Catania, Sicily, Italy, June, 2001.
- Workshop Participant: Symposium on *Nutrient Overenrichment of Coastal Waters: Global Patterns of Cause and Effect*, National Academy of Sciences, Washington D.C., October 2000.

Participation in Education Program:

- Instructor (with Mark Kurz and Bernhard Peucker-Ehrenbrink), “Marine Isotope Geochemistry”, MIT/WHOI Joint Program, Spring 2002.
- Instructor (with Karen Casciotti), “Seminar in Chemical Oceanography”, MIT/WHOI Joint Program, Spring 2005.
- Instructor (with Bill Martin, Karen Casciotti, and Bernhard Peucker-Ehrenbrink), “Marine Isotope Geochemistry”, MIT/WHOI Joint Program, Fall 2010.
- Instructor, “Introduction to Chemical Oceanography”, BP Short Course on Oceanography, Fall 2011.

Thesis/Dissertation Committees

- Maya Bhatia, Ph.D. candidate, MIT/WHOI Joint Program
- Dan Rogers, Ph.D. (2010), MIT/WHOI Joint Program
- Sheri Simmons, Ph.D. (2006), MIT/WHOI Joint Program
- Carolyn Gramling, Ph.D. (2003) WHOI/MIT Joint Program
- Linda Rasmussen, Ph.D. (2003) WHOI/MIT Joint Program

Other

- WHOI Postdoctoral Scholar Selection Committee, Department of Marine Chemistry and Geochemistry Representative, 2006-2008.
- Joint Program Student Advising Committee, Department of Marine Chemistry and Geochemistry, 2001-2003.
- MIT/WHOI Joint Program Admissions Committee, Department of Marine Chemistry and Geochemistry Representative, 2002-2003.
- Chair of Thesis Proposal Defense, Rachel Wisenewski, Ph.D. candidate, MIT/WHOI Joint Program
- Joint Committee for Chemical Oceanography, member, 2009-present.

Supervision at WHOI:

Undergraduate Students

- Carrie Wicklund, Harvey Mudd College (NSF-REU, Summer 1996)
- Stephanie Walsh, Maine Maritime Academy (undergraduate, Fall 1996)
- Danielle Alfano, N. Kingstown H.S. (high school intern, Spring 1998)
- Richard Splivalo, Ohio State University (WHOI Summer Student Fellow, Summer 1999)
- Liam Bossi, Massachusetts Institute of Technology (Guest student, Summer 2000)
- Marcie Workman, University of Missouri (WHOI Summer Student Fellow, Summer 2001)
- Jeremy Testa, State University of New York at Syracuse (NSF-REU, Summer 2002)
- Jennifer Talbot, Boston University (NSF-REU, Summer 2003)
- Daniel Abraham, Bowdoin College (NSF-REU, Summer 2003)
- Linnah Neidel, University of New Mexico (NSF-REU, Summer 2004)
- Kayla Halloran, Bucknell University (Woods Hole Mar. Sci. Consortium Intern, Summer 2004)
- Sharon Bone, Vassar College (NSF-REU, Summer 2005)
- Ratsirin Supcharoen, Bowdoin College (NSF-REU, Summer 2005)
- Deanna McCadney, Western Kentucky University (WHOI Minority Fellow, Summer 2006-7)
- Elena Chung, University of Maryland (NSF-REU, Summer 2007)
- Jessica Fitzsimmons, Boston University (NSF-REU, Summer 2007)
- Katherine French, Yale University (NSF-REU, Summer 2007)
- Rachel Allen, Williams College (NSF-REU, Summer 2008)
- Joe Murray, Arizona State University (NSF-REU, Summer 2009)

Guest Students

- Claudette Spiteri, University of Utrecht, Netherlands (Fall 2004)
- Ester Garcia, University of Barcelona, Spain (Fall 2005)
- John Rapaglia, SUNY-Stony Brook (Fall 2005)
- Paul Morris, Southampton Oceanography Centre, UK (Summer 2004, Summer 2006)
- Michael Bourquin, Laboratoire d'Etudes en Geophysique et Oceanographie Spatiales, France (Summer 2008)
- Qian Liu, Xaimen University, China (February 2009 to September 2010)
- Joe Murray, Arizona State University (August 2010 to December 2010)

Graduate Students

- Richard (Hunter) Oates, WHOI-MIT Joint Program Ph.D. candidate, (pre-generals research advisor, Jul. 2006 to Dec. 2006)
- Rastirin (Pae) Supcharoen, WHOI-MIT Joint Program Ph.D. candidate, (pre-generals research advisor, Jun. 2006 to Oct. 2009)
- Meagan Gonneea, WHOI-MIT Joint Program Ph.D. candidate, (Jul. 2008 to present)
- Benjamin Linhoff, WHOI-MIT Joint Program Ph.D. candidate, (Jun. 2010 to present)

Postdoctoral

- Kevin Kroeger, Postdoctoral Scholar, (Dec. 2002 to Aug. 2004)
- Henrieta Dulaiova, Postdoctoral Scholar, (Nov. 2005 to Nov. 2008)
- Alexandra Rao, Postdoctoral Investigator, (Jan. 2007 to Jul. 2008)
- Kanchan Maiti, Postdoctoral Investigator, (Mar. 2009 to May 2010)

-Paul Morris, Postdoctoral Investigator, (Feb. 2010 to present)

Employees

- Meagan Eagle Gonneea, Research Associate II (Jun. 2004 to Jul. 2008)
- Sharon Bone, Research Assistant II (Aug. 2005 to Dec. 2005)
- Matthew Allen, Research Assistant III (Jun. 2002 to Aug. 2004)
- Craig Herbold, Research Assistant III (Dec. 2000 to Aug. 2003)
- Adam Rago, Research Assistant I (Jun. 2001 to Jan. 2007)
- Kathleen Kucharski, High School Helper (Nov. 1999 to May 2001)
- Gillian Smith, Laboratory Assistant I (Jun. 2005 to Aug. 2006)
- Kathleen Stone, High School Helper (Jun. 2002 to Jun. 2003)
- Megan Soderstrom, Laboratory Assistant I (Jan. 2007 to Jun. 2007)
- Dan Moakley, High School Helper (Jul. 2008 to May. 2009)
- Grace Rago, High School Helper (Jan. 2006 to Sept. 2010)
- Paul Henderson, Research Associate II (Jun. 2004 to present)
- Crystal Brier, Research Assistant III (Jan. 2009 to present)

Cruise and Field Experience:

Cruises

- Sargasso Sea/Mid Atlantic Bight. 2008. 12 days aboard the *R/V Knorr*. Intercalibration exercise for radium isotopes in seawater–GEOTRACES program.
- Gulf of Maine. 2003. 10 days aboard the *R/V Oceanus*. Measured radium isotope distributions in surface waters for the purpose of calculating groundwater discharge and water mass mixing rates.
- Black Sea. 2001. 10 days aboard the *R/V Knorr*. Measured radium isotope distributions in surface waters for the purpose of calculating water mass mixing rates.
- Southern Ocean: Pacific Sector. 1999. 30 days aboard the *R/V Tangaroa*. Measured particulate organic carbon export fluxes during a mesoscale, unenclosed iron fertilization experiment using the natural tracer ^{234}Th as well as free-drifting sediment traps.
- Gulf of Maine and Scotian Shelf. 1997. 20 days aboard the *CCGS Parizeau*. Contaminant and carbon budget on the continental shelf. Collected water column and sediment samples for ^{234}Th , DOC, and trace metals at over 50 stations.
- Southern and equatorial Atlantic Ocean. 1996. 35 days aboard the *R/V Knorr*. Collected samples for ^{234}Th , DOC, and the trace-radionuclides ^{230}Th and ^{231}Pa .
- Sargasso Sea. 1995. 5 days aboard the *R/V Weatherbird*. Radionuclide chemistry and sampling for colloids.
- Central Gulf of Maine. 1995-1996. 5 cruises totaling 24 days at sea. *R/V Hatteras*, *R/V Argo Maine*. Sampled for trace metals and radionuclides; assisted in sediment trap deployment and retrieval.
- Florida Current/Gulf Stream. 1993. 4 days aboard the *R/V Delphinus*. Studied physical and biological characteristics of the Gulf Stream.

Field Work

- Day trips on small boats or land-based sampling: Waquoit Bay, MA; West Falmouth Harbor, MA; Boston Harbor, MA; Pamet River, MA; Cape Cod Bay, MA; Norfolk Harbor, VA; Quonnochohtaug Pond, RI; Sippewisset Marsh, MA; Shelter Island, NY; Wilmington, NC;

Gulf of Roses, NE Spain; Florida Everglades; Ubatuba, Brazil; SE Sicily, Italy; W. Panama, Mauritius, Venice, Italy; Southwest Florida, Yucatan, Mexico, Kuwait Bay, Kuwait, Western Greenland, Magellan Strait, Chile/Argentina, Guam, Galway Bay, W. Ireland, Yellowstone National Park, WY.

Publications (in review):

* indicates graduate student lead or co-author advisee

indicates undergraduate lead or co-author advisee

† indicates postdoctoral lead or co-author advisee

72. Liu, Q., M. Dai, W. Chen, C.A. Huh, G. Wang, Q. Li, and M.A. Charette. (2011) How significant is submarine groundwater discharge and its associated dissolved inorganic carbon in a river-dominated shelf system-the northern South China Sea? *Biogeosciences*, submitted.

71. Charette, M.A., M.A. Charette, H. Dulaiova, M.E. Gonneea, P.B. Henderson, W.S. Moore, J.C. Scholten, and M.K. Pham. (2011) GEOTRACES radium isotopes interlaboratory comparison experiment. *Limnology and Oceanography: Methods*, submitted.

70. Fadlelmawla, A., M. Al-Senafy, and M.A. Charette. (2011) Anthropogenic and natural controls on coastal groundwater exchange in an arid region (Kuwait). *Journal of Hydrology*, submitted.

Publications (peer reviewed):

69. Rao[†], A., and M.A. Charette. (2011) Benthic nitrogen fixation in an eutrophic estuary impacted by groundwater discharge. *Journal of Coastal Research*, in press.

68. Michael, H.A., M.A. Charette, and C.F. Harvey. (2011) Patterns and variability of radium activity in groundwater discharge at the coast, a case study from Waquoit Bay, Massachusetts. *Marine Chemistry*, **127**, 100-114.

67. Povinec, P.P., W.C. Burnett, H. Bokuniewicz, M. Charette, M.E. Gonneea, M. Groening, T. Ishitobi, E. Kontar, L. Liong Wee Kwong, D.E.P. Marie, W.S. Moore, J.A. Oberdorfer, R. Peterson, R. Ramessur, J. Rapaglia, T. Stieglitz, and Z. Top. (2011) Isotopes as tracers of submarine groundwater discharge: IAEA-UNESCO intercomparison exercise at Mauritius Island. *Journal of Environmental Radioactivity*, in press.

66. van Hengstum, P.J., D.B. Scott, D.R. Gröcke, and M.A. Charette. (2011) Sea level controls sedimentation and environments in coastal caves and sinkholes. *Marine Geology*, **286**, 35-50.

65. Bhatia^{*}, M.P., S.B. Das, E.B. Kujawinski, P.B. Henderson, A. Burke, and M.A. Charette. (2011) Seasonal evolution of water source contributions to Greenland ice sheet subglacial outflow: Insight from a new isotope-mixing model. *Journal of Glaciology*, **57**, 929-941.

64. Scholten, J., M.K. Pham, O. Blinova; M. Charette, H. Dulaiova[†], and M. Eriksson. (2010) Preparation of Mn-fiber standards for the efficiency calibration of the delayed coincidence counting system (RaDeCC), *Marine Chemistry*, **121**, 206-219.
63. Bhatia*, M.P., S.B. Das, K. Longnecker, M.A. Charette, and E.B. Kujawinski. (2010) Molecular characterization of dissolved organic matter associated with the Greenland ice sheet, *Geochimica et Cosmochimica Acta*, **74**, 3768-3784.
62. Charette, M.A., and W.H.F. Smith. (2010) The volume of earth's ocean. *Oceanography*, **23**, 104-106.
61. Dulaiova[†], H., R. Camilli, P. Henderson, and M.A. Charette. (2010) Coupled radon, methane and nitrate sensors for large-scale assessment of groundwater discharge and non-point source pollution to coastal waters. *Journal of Environmental Radioactivity*, **101**, 553-563.
60. Dulaiova[†], H., P. Henderson, M.V. Ardelan, and M.A. Charette. (2009) Shelf-derived iron inputs drive biological productivity in the Scotia Sea. *Global Biogeochemical Cycles*, **23**, GB4014, doi:10.1029/2008GB003406.
59. Mulligan, A.E., and M.A. Charette (2009) Groundwater Flow to the Coastal Ocean, In: John H. Steele, Karl K. Turekian, and Steve A. Thorpe, Editor(s)-in-Chief, *Encyclopedia of Ocean Sciences*, Academic Press, Oxford, 2009, Pages 88-97, DOI: 10.1016/B978-012374473-9.00645-7.
58. Jung, H.B., M.A. Charette, and Y. Zheng. (2009) A field, laboratory and modeling study of reactive transport of groundwater arsenic in a coastal aquifer. *Environmental Science and Technology*, **43**, 5333-5338.
57. Pollard, R.T. I. Salter, R.J. Sanders, M.I. Lucas, C.M. Moore, P.J. Statham, J.T. Allen, D.C.E. Bakker, M.A. Charette, S. Fielding, G.R. Fones, M. French, A.E. Hickman, R.J. Holland, J.A. Hughes, T.D. Jickells, R.S. Lampitt, R.A. Mills, F.H. Nédélec, P.J. Morris, M. Nielsdóttir, H. Planquette, E.E. Popova, A.J. Poulton, J.F. Read, S. Seeyave, T. Smith, M. Stinchcombe, S. Thomalla, H.J. Venables, R. Williamson, M.V. Zubkov. (2009) Southern Ocean deep-water carbon export enhanced by natural iron fertilization. *Nature*, **457**, 577-580.
56. Bokuniewicz, H., M. Taniguchi, T. Ishitobi, M. Charette, M. Allen, and E.A. Kontar. (2008) Direct measures of submarine groundwater discharge (SGD) over a fracture rock aquifer in Ubatuba Brazil. *Estuarine, Coastal, and Shelf Science*, **76**, 466-472.
55. Bourquin M., P. van Beek, J-L. Reyss, M. Souhaut, M. Charette, and C. Jeandel. (2008) Testing methods to separate radium isotopes from seawater. *Marine Chemistry*, **109**, 226-237.
54. Charette, M.A., W.S. Moore, and W.C. Burnett. (2008) Uranium- and thorium-series nuclides as tracers of submarine groundwater discharge. In: S. Krishnaswami and J.K.

Cochran (Editors) “U-Th Series Nuclides in Aquatic Systems”, Volume 13 in Series: Radioactivity in the Environment, Elsevier, p. 155-192.

53. Charette, M.A., and J.C. Scholten. (2008) Marine Chemistry Special Issue: The Renaissance of Radium Isotopic Tracers in Marine Processes Studies. *Marine Chemistry*, **109**, 185-187.
52. Dulaiova[†], H., M.E. Gonneea, P.B. Henderson, and M.A. Charette. (2008) Geochemical and physical sources of radon variation in a subterranean estuary – Implications for groundwater radon activities in submarine groundwater discharge studies. *Marine Chemistry*, **110**, 120-127.
51. Geibert, W., M.A. Charette, G. Kim, W.S. Moore, A. Paytan, J. Street, and M. Young. (2008) The release of dissolved actinium to the ocean: a global comparison of different end-members. *Marine Chemistry*, **109**, 409-420.
50. Gonneea, M.E., P. Morris, H. Dulaiova[†], and M.A. Charette. (2008) New perspectives on radium behavior within a subterranean estuary. *Marine Chemistry*, **109**, 250-267.
49. Kroeger[†], K.D., and M.A. Charette. (2008) Nitrogen biogeochemistry of submarine groundwater discharge. *Limnology and Oceanography*, **53**, 1025-1039.
48. Oberdorfer, J., M. Charette, M. Allen, J. Cable, J. Martin, and S. Nylen. (2008) Hydrogeology and geochemistry of near-shore submarine groundwater discharge at Flamengo Bay, Ubatuba, Brazil. *Estuarine, Coastal, and Shelf Science*, **76**, 457-465.
47. Povinec, P.P., H. Bokuniewicz, W.C. Burnett, J. Cable, M. Charette, J.F. Comanducci, E.A. Kontar, W.S. Moore, J.A. Oberdorfer, J. de Oliveira, R. Peterson, T. Stieglitz, M. Taniguchi. (2008) Isotope tracing of submarine groundwater discharge offshore Ubatuba, Brazil: Results of the IAEA-UNESCO SGD project. *Journal of Environmental Radioactivity*, **99**, 1596-1610.
46. Rouxel, O., E.R. Sholkovitz, M. Charette, and K. Edwards. (2008) Large scale iron isotope fractionation in subterranean estuaries. *Geochimica et Cosmochimica Acta*, **72**, 3413-3430.
45. Spiteri^{*}, C., C.P. Slomp, M.A. Charette, K. Tuncay, and C. Meile. (2008) Flow and nutrient dynamics in a subterranean estuary (Waquoit Bay, MA, USA): field data and reactive transport modeling. *Geochimica et Cosmochimica Acta*, **72**, 3398-3412.
44. van Beek P., M. Bourquin, J-L. Reyss J-L., M. Souhaut M., M. Charette, and C. Jeandel. (2008) Radium isotopes to investigate the water mass pathways on the Kerguelen plateau (KEOPS project). *Deep-Sea Research II*, **55**, 622-637.

43. Bone[#], S.E., M.A. Charette, C.H. Lamborg, and M.E. Gonneea. (2007) Has submarine groundwater discharge been overlooked as a source of mercury to coastal waters? *Environmental Science and Technology*, **41**, 3090-3095.
42. Charette, M.A. (2007) Hydrologic forcing of submarine groundwater discharge: insight from a seasonal study of radium isotopes in a groundwater dominated salt marsh estuary. *Limnology and Oceanography*, **52**, 230-239.
41. Charette, M.A., M.E. Gonneea, P. Morris, P. Statham, G. Fones, H. Planquette, I. Salter, A. Naveira Garabato. (2007) Radium isotopes as tracers of iron sources fueling a Southern Ocean phytoplankton bloom. *Deep-Sea Research II*, **54**, 1989-1998.
40. Planquette, H., P.J. Statham, G.R. Fones, M.A. Charette, M. Moore, I. Salter, F.H. Nédélec, S.L. Taylor, M. French, A.R. Baker, N. Mahowald, and T. D. Jickells (2007) Dissolved iron in the vicinity the Crozet Islands, Southern Ocean. *Deep-Sea Research II*, **54**, 1999-2019.
39. van Beek, P., R. Francois, M. Conte, J.-L. Reyss, M. Souhaut, and M. Charette. (2007) $^{228}\text{Ra}/^{226}\text{Ra}$ and $^{226}\text{Ra}/\text{Ba}$ ratios in seawater and particles at the OFP site in the western Sargasso Sea near Bermuda. *Geochimica et Cosmochimica Acta*, **71**, 71-86.
38. Bakker, D.E., P. W. Boyd, E.R. Abraham, M. A. Charette, M. P. Gall, J.A. Hall, C.S. Law, S.D. Nodder, K. Safi, D.J. Singleton, K. Tanneberger, T.W. Trull, A.M. Waite, A. J. Watson, and J. Zeldis. (2006) Matching carbon pools and fluxes for the Southern Ocean Iron RElease Experiment (SOIREE), *Deep Sea Research I*, **53**, 1941-1960.
37. Bone[#], S.E., M.E. Gonneea, and M.A. Charette. (2006) Geochemical cycling of arsenic in a coastal aquifer. *Environmental Science and Technology*, **40**, 3273-3278.
36. Buesseler, K.O., C. Benitez-Nelson, S.B., Moran, A. Burd, M. Charette, J.K. Cochran, L. Coppola, N.S. Fisher, S.W. Fowler, W.D. Gardner, L.D. Guo, O. Gustafsson, C. Lamborg, P. Masque, J.C. Miquel, U. Passow, P.H. Santschi, N. Savoye, G. Stewart, and T. Trull. (2006) An assessment of particulate organic carbon to thorium-234 ratios in the ocean and their impact on the application of ^{234}Th as a POC flux proxy. *Marine Chemistry*, **100**, 213-233.
35. Burnett, W.C., P.K. Aggarwal, H. Bokuniewicz, J.E. Cable, M.A. Charette, E. Kontar, S. Krupa, K.M. Kulkarni, A. Loveless, W.S. Moore, J.A. Oberdorfer, J. Oliveira, N. Ozyurt, P. Povinec, A.M.G. Privitera, R. Rajar, R.T. Ramessur, J. Scholten, T. Stieglitz, M. Taniguchi, and J.V. Turner. (2006) Quantifying submarine groundwater discharge in the coastal zone via multiple methods. *Science of the Total Environment*, **367**, 498-543.
34. Charette, M.A., and M.C. Allen. (2006) Precision groundwater sampling in coastal aquifers using a direct push shielded-screen well-point system. *Ground Water Monitoring & Remediation*, **26**, 87-93.

33. Charette, M.A., and E.R. Sholkovitz. (2006) Trace element cycling in a subterranean estuary: Part 2. Geochemistry of the pore water. *Geochimica et Cosmochimica Acta*, **70**, 811-826.
32. de Oliveira, J., M.A. Charette, M. Allen, E. de Santis Braga, and V. Vernoese Furtado. (2006) Coastal water exchange rates at the southeastern Brazilian margin using Ra isotopes as tracers. *Radioactivity in the Environment*, ed. P. Povinec, J.A. Sanchez-Cabeza, Elsevier, Amsterdam, **8**, 345-359.
31. Dulaiova, H., W. C. Burnett, J. P. Chanton, W. S. Moore, H. J. Bokuniewicz, M. A. Charette, and E. Sholkovitz. (2006) Assessment of groundwater discharges into West Neck Bay, New York, via natural tracers. *Continental Shelf Research*, **26**, 1971-1983.
30. Mulligan, A.E., and M.A. Charette. (2006) Intercomparison of submarine ground water discharge estimates from a sandy unconfined aquifer. *Journal of Hydrology*, **327**, 411-425.
29. Rutgers van der Loeff, M., M. Sarin, M. Baskaran, C. Benitez-Nelson, K.O. Buesseler, M. Charette, M. Dai, O. Gustafsson, P. Masque, P.J. Morris, K. Orlandini, A. Rodriguez y Baena, N. Savoye, S. Schmidt, R. Turnewitsch, I. Voge, and J.T. Waples. (2006) A review of present techniques and methodological advances in analyzing ^{234}Th in aquatic systems. *Marine Chemistry*, **100**, 190-212.
28. Savoye, N., K. Buesseler, C. Benitez-Nelson, A.B. Burd, J.K. Cochran, M. Charette, K.O. Buesseler, G. Jackson, M. Roy-Barman, S. Schmidt, and M. Elskens. (2006) ^{234}Th sorption and export models in the water column: a review. *Marine Chemistry*, **100**, 234-249.
27. Spiteri*, C., P. Regnier, C.P. Slomp, and M.A. Charette. (2006) pH-dependent iron oxide precipitation in a subterranean estuary. *Journal of Geochemical Exploration*, **88**, 399-403.
26. Buesseler, K.O., J.E. Andrews, S.M. Pike, M.A. Charette, L.E. Goldson, M.A. Brzezinski, and V.P. Lance. (2005) Particle export during the Southern Ocean Iron Experiment (SOFEX), *Limnology and Oceanography*, **50**, 311-327.
25. Crusius, J., D. Koopmans, J. Bratton, M.A. Charette, K. Kroeger, P. Henderson, L. Ryckman, K. Halloran, and J.A. Coleman. (2005) Submarine groundwater discharge to a small estuary estimated from radon and salinity measurements and a box model. *Biogeosciences*, **2**, 141-157.
24. Charette, M.A., E.R. Sholkovitz, and C. Hansel (2005) Trace element cycling in a subterranean estuary: Part 1. Geochemistry of the permeable sediments. *Geochimica et Cosmochimica Acta*, **69**, 2095-2109.

23. Charette, M.A., and K.O. Buesseler. (2004) Submarine groundwater discharge of nutrients and copper to an urban subestuary of Chesapeake Bay (Elizabeth River), *Limnology and Oceanography*, **49**, 376-385.
22. Buesseler, K.O., J.E. Andrews, S.M. Pike, and M.A. Charette. (2004) Does iron fertilization enhance carbon sequestration in the Southern Ocean? *Science*, **304**, 414-417.
21. Benitez-Nelson, C.R., and M.A. Charette. (2004) Uncertainty versus variability in ocean carbon flux estimates, *Limnology and Oceanography*, **49**, 1218-1220.
20. Charette, M.A., R. Splivallo, C. Herbold, M. Bollinger, and W.S. Moore. (2003) Salt marsh submarine groundwater discharge as traced by radium isotopes, *Marine Chemistry*, **84**, 113-121.
19. Sholkovitz, E.R., C. Herbold, and M.A. Charette. (2003) An automated dye-dilution based seepage meter for the time-series measurement of submarine groundwater discharge, *Limnology and Oceanography:Methods*, **1**, 17-29.
18. Abraham[#], D.R., M.A. Charette, M.C. Allen, A. Rago, and K.D. Kroeger. (2003) Radiochemical estimates of submarine groundwater discharge to Waquoit Bay, Massachusetts. *Biological Bulletin*, **205**, 246-247.
17. Talbot[#], J. M., K.D. Kroeger, A. Rago, M.C. Allen, and M.A. Charette. (2003) Nitrogen flux and speciation through the subterranean estuary of Waquoit Bay, Massachusetts. *Biological Bulletin*, **205**, 244-245.
16. Charette, M.A., and E.R. Sholkovitz. (2002) Oxidative precipitation of groundwater-derived ferrous iron in the subterranean estuary of a coastal bay, *Geophysical Research Letters*, **29**, 2001GL014512 (cover article).
15. Testa[#], J.M., M.A. Charette, E.R. Sholkovitz, M.C. Allen, A. Rago, and C.W. Herbold. (2002) Dissolved iron cycling in the subterranean estuary of a coastal bay: Waquoit Bay, Massachusetts. *Biological Bulletin*, **203**, 255-256.
14. Charette, M.A., K.O. Buesseler, and J.E. Andrews. (2001) Utility of radium isotopes for evaluating the input and transport of groundwater-derived nitrogen to a Cape Cod estuary. *Limnology and Oceanography*, **46**, 465-470.
13. Nodder, S., M.A. Charette, A. Waite, T. Trull, P.W. Boyd, J. Zeldis, and K.O. Buesseler. (2001) Particle transformations and export flux during an in situ iron-stimulated bloom in the Southern Ocean. *Geophysical Research Letters*, **28**, 2409-2412.
12. Buesseler, K.O., C. Benitez-Nelson, M. Rutgers van der Loeff, J. Andrews, L. Ball, G. Crossin, and M.A. Charette. (2001) An intercomparison of small- and large-volume techniques for thorium-234 in seawater. *Marine Chemistry*, **74**, 15-28.

11. Charette, M.A., S.B. Moran, S.M. Pike, and J.N. Smith. (2001) Investigating the carbon cycle in the Gulf of Maine using the natural tracer thorium-234, *Journal of Geophysical Research*, **106**, 11,553-11,580.
10. Benitez-Nelson, C., K. Buesseler M. Rutgers van der Loeff, J. Andrews, L. Ball, G. Crossin, and M.A. Charette. (2001) Testing a new small-volume technique for determining thorium-234 in seawater. *Journal of Radioanalytical and Nuclear Chemistry*, **248**, 795-799.
9. Charette, M.A. and K.O. Buesseler. (2000) Does iron-fertilisation lead to rapid carbon export in the Southern Ocean? *Geochemistry, Geophysics, Geosystems*, 2000GC000069.
8. Buesseler, K.O., and M.A. Charette. (2000) Commentary on: How accurate are ^{234}Th based particulate residence times in the ocean? By G. Kim, N. Hussain, and T. Church. *Geophysical Research Letters*, **27**, 1939-1940.
7. Boyd, P.W., A. Watson, C.S. Law, E. Abraham, T. Trull, R. Murdoch, D.C.E. Bakker, A.R. Bowie, K.O. Buesseler, H. Chang, M.A. Charette, P. Croot, K. Downing, R. Frew, M. Gall, M. Hadfield, J. Hall, M. Harvey, G. Jameson, J. La Roche, M. Liddicoat, R. Ling, M. Maldonado, R.M. McKay, S. Nodder, S. Pickmere, R. Pridmore, S. Rintoul, K. Safi, P. Sutton, R. Strzepek, K. Tannenberger, S. Turner, A. Waite, J. Zeldis. (2000) A mesoscale phytoplankton bloom in the polar Southern Ocean stimulated by iron fertilization, *Nature*, **407**, 695-702.
6. Charette, M.A. and S.B. Moran. (1999) Rates of particle scavenging and particulate organic carbon export estimated using ^{234}Th as a tracer in the subtropical and equatorial Atlantic Ocean, *Deep-Sea Research II*, **46**, 885-906.
5. Charette, M.A., S.B. Moran and J.K.B. Bishop. (1999) ^{234}Th as a tracer of particulate organic carbon export in the subarctic northeast Pacific Ocean, *Deep-Sea Research II*, **46**, 2833-2861.
4. Moran, S.B., M.A. Charette, S.M. Pike and C. A. Wicklund. (1999) Differences in seawater particulate organic carbon concentration in samples collected using small-volume and large-volume methods: the importance of DOC adsorption to the filter blank, *Marine Chemistry*, **67**, 33-42.
3. Boyd, P.W., N. Sherry, J. Berges, J. Bishop, S. Calvert, M.A. Charette, S. Giovannoni, R. Goldblatt, P.J. Harrison, S.B. Moran, S. Roy, M. Soon, S. Strom, D. Thibault, K. Vergin, F. Whitney, and C.S. Wong. (1999) Transformations of biogenic particulates from the pelagic to the deep ocean realm, *Deep-Sea Research II*, **46**, 2761-2792.
2. Gregory, T.M. and M.A. Charette. (1997) Heavy metal contamination in sediment from Crane Creek, FL., *Florida Scientist*, **60**, 81-88.

1. Moran, S.B., M.A. Charette, J.A. Hoff, R.L. Edwards, and W.M. Landing. (1997) Distribution of ^{230}Th in the Labrador Sea and its relation to ventilation, *Earth and Planetary Science Letters*, **150**, 151-160.

Publications (non-peer reviewed):

Benitez-Nelson, C., and The ^{234}Th Group. (2004) Future Applications of ^{234}Th in Aquatic Ecosystems. *EOS*, **85**, 471.

Charette, M.A., and A.E. Mulligan. (2005) Water flowing underground: new techniques reveal the importance of groundwater flowing into the sea. *Oceanus*, **43**, 29-33.

Charette, M.A. (2005) Groundwater-Surface Water Interactions Sensor Technology, Alliance for Coastal Technology Workshop Report, [UMCES]CBL 05-084.

Charette, M., R. Sanders, and M. Zhou. (2011) Southern Ocean Natural Iron Fertilization. *EOS*, **92**, 283.

Crusius, J., J. Bratton, and M. Charette. (2004) Putting radon to work: identifying coastal ground-water discharge sites. USGS Open File Report 2004-1381.

Kroeger, K. D.; P. W. Swarzenski, J. Crusius, J. F. Bratton, M. A. Charette (2007). Submarine Ground-Water Discharge: Nutrient Loading and Nitrogen Transformations. U.S. Geological Survey Fact Sheet 2006-3110.

Swarzenski, P.W., M. Charette, and C. Langevin. (2004) An autonomous, electromagnetic seepage meter to study coastal groundwater/surface-water exchange. USGS Open File Report 2004-1369.

Abstracts:

Liu, Q., M.A. Charette, P.B. Henderson, and C.F. Breier. Submarine groundwater discharge along the West Florida Shelf and its critical role in controlling ecosystem relative to riverine input? 2011 Asia Oceania Geosciences Society, Taiwan.

van Hengstum, P.J., D.B. Scott, D.R. Gröcke, and M.A. Charette. Successions in a Bermudian underwater cave track holocene sea-level rise: a global model for coastal cave environments. 2010 Geological Society of America Meeting, Denver, CO.

Linhoff, B., C. Breier, and M.A. Charette. Uranium cycling in submarine groundwater discharge: insight from uranium isotopes. 2011 ASLO Winter Meeting, San Juan, PR.

Charette, M.A., and P. van Beek. The Role of Ocean Mixing in Southern Ocean Iron-fueled Phytoplankton Blooms: Insight from Radium Isotopes. 2011 Liege Colloquium, Liege, Belgium.

- Morris P.J, Charette M.A, Buesseler K.O, Lam P.J, Auro M, Henderson P, Manganini S.J, Murray J, Ohnemus D, Owens S.A, Pike S.M, And Zhou K. The collection of trace elements and isotopes using a newly modified in situ pump – Radium as a case study. 2011 Liege Colloquium, Liege, Belgium.
- Gonneea, M.E., and M.A. Charette. The geochemical signature of SGD from a karst aquifer: a case study from the Yucatan Peninsula. 2011 Gordon Research Conference on Chemical Oceanography, New Hampshire.
- Bhatia, M.P., S.B. Das, E.B. Kujawinski, P.B. Henderson, A. Burke, and M.A. Charette. Seasonal evolution of water source contributions to the subglacial outflow from a land-terminating Greenland ice sheet outlet glacier: Insight from a new isotope mixing model. 2010 Fall AGU Meeting, San Francisco, CA. *Invited*.
- Bhatia, M.P., S. B. Das, L. Xu, M.A. Charette and E.B. Kujawinski. Seasonal hydrological cycle control on age, abundance and lability of carbon exported from the Greenland ice sheet. 2010 Fall AGU Meeting, San Francisco, CA.
- Charette, M.A. P.B. Henderson, C.F. Breier, M.E. Gonneea, J. Murray, J.W. Jenson, S. Morales and J. Herrera-Silveira. Submarine Groundwater Discharge of Trace Elements and Isotopes from Karst Systems. 2010 Fall AGU Meeting, San Francisco, CA. *Invited*.
- Nevison, C.D., R.F. Keeling, M. Kahru, M. Manizza, M.A. Charette, and K. Maiti. Export Production in the Southern Ocean Estimated from Satellite Ocean Color Data and Seasonal Variations in Atmospheric Potential Oxygen. 2010 Fall AGU Meeting, San Francisco, CA.
- Charette, M.A. P.B. Henderson, M.E. Gonneea, and J.W. Jenson. Radionuclide tracers of submarine groundwater discharge on an ocean island (Guam). 2010 Environmental Radioactivity Meeting, Rome, Italy, October 2010. *Invited*.
- Bhatia, M.P., S. B. Das, E. B. Kujawinski, P. Henderson, and M.A. Charette. Seasonal evolution of water source contributions to the subglacial outflow from a land-terminating Greenland ice sheet outlet glacier: Insight from a new isotope mixing model. International Glaciological Society International Symposium on "Earth's Disappearing Ice", Columbus, Ohio, USA, August 2010.
- Bhatia, M.P., S. B. Das, K. Longnecker, M.A. Charette, and E. B. Kujawinski. A microbial imprint on molecular-level composition of dissolved organic matter associated with the greenland ice sheet. International Society of Microbial Ecology, Seattle WA, August 2010.
- Charette, M.A. P.B. Henderson, C.F. Breier, M.E. Gonneea, J.W. Jenson, and J. Herrera-Silveira. Submarine Groundwater Discharge from Karst Systems: Is Radium Tracing the Fresh Component? Ra-Rn3: Radium and Radon Isotopes As Environmental Tracers, Jerusalem, Israel, March 2010. *Invited*.

- Dulaiova, H., Gonnee, M. E., Henderson, P. B., and Charette, M. A. Large-scale assessment of SGD from radon surveys. ASLO 2010 Summer Meeting, Santa Fe, New Mexico.
- Dulaiova, H., Gonnee, M. E., Henderson, P. B., and Charette, M. A. Assessment of SGD from Large Scale Radon Survey in a Bay with Variable Groundwater Radon Activities. Ra-Rn3: Radium and Radon Isotopes As Environmental Tracers, Jerusalem, Israel, March 2010.
- Gonnee, M.E., M.A. Charette, and A.E. Mulligan. A Three-Year Time Series of Radium in the Subterranean Estuary. Ra-Rn3: Radium and Radon Isotopes As Environmental Tracers, Jerusalem, Israel, March 2010.
- Jiang, M., M.A. Charette, C.I. Measures, and M. Zhou. Modeling circulation and Fe transport in the Antarctic Peninsula, Drake Passage, and Scotia Sea. AGU 2010 Ocean Sciences Meeting, Portland, Oregon.
- Liu, Q. M. Dai, W. Chen, G. Wang, Q. Li, and M. Charette. Submarine Groundwater Discharge and Associated Inorganic Carbon Flux in the Northern Continental Shelf of South China Sea, China. Ra-Rn3: Radium and Radon Isotopes As Environmental Tracers, Jerusalem, Israel, March 2010.
- Michael, H.A., M.A. Charette, and C.F. Harvey. Influence of Groundwater Flowpaths on Subsurface Radium Distributions and Fluxes. Ra-Rn3: Radium and Radon Isotopes As Environmental Tracers, Jerusalem, Israel, March 2010.
- Moore, W.S., M.A. Charette, J. Scholten, and H. Dulaiova. Radium Standards, Counter Calibrations, and Intercomparisons. Ra-Rn3: Radium and Radon Isotopes As Environmental Tracers, Jerusalem, Israel, March 2010.
- Oliveira, J.D., de Sousa, K.C., de Jesus, S.C., Mazzilli, B.P., Burnett, W.C., Moore, W.S., Povinec, P.P., Charette, M.A., Braga, E.S., and Furtado, V.V. A decade dataset on natural Ra isotopes distribution in São Paulo State continental, coastal and marine water resources. AGU 2010 Meeting of the Americas, Sao Paulo, Brazil.
- Povinec, P. P., Bokuniewicz, H., Burnett, W. C., Charette, M., Groening, M., Ishitoibi, T., Kontar, E., Shirshov I., Marie, D. E., Moore, W. S., Oberdorfer, J. A. Submarine groundwater discharge studies using isotopic tracers and nutrients: Mauritius island case. ASLO 2010 Summer Meeting, Santa Fe, New Mexico.
- Scholten, J.C., O. Blinova, M. Charette, H. Dulaiova, W. Moore, and M.K. Pham. The challenge of getting the right number for ^{223}Ra measurements using the delayed coincidence counting system (RaDeCC). Charette, M.A. Submarine Groundwater Discharge from Karst Systems: Is Radium Tracing the Fresh Component? Ra-Rn3: Radium and Radon Isotopes As Environmental Tracers, Jerusalem, Israel, March 2010.

- Bokuniewicz, H., R. Coffey, and M.A. Charette. Character of submarine groundwater discharge around islands. 2009 Fall AGU Meeting, San Francisco, CA.
- Charette, M., C. Breier, H. Dulaiova, M. Gonneea, P. Henderson, K. Kroeger, A. Mulligan, A. Rao, and C. Slomp. Nutrient biogeochemistry in permeable sediments impacted by submarine groundwater discharge. 2010 Goldschmidt Conference. *Geochimica et Cosmochimica Acta*, **74**, A162. *Invited*
- Charette, M.A, Gonneea, M., Henderson, P., Rao, A., Breier, C., and Murray, J. Subterranean estuaries in karst systems: biogeochemical cycling of trace metals and nutrients. 2009 Geological Society of America Meeting, Portland, Oregon. *Invited*
- Kroeger, K.D., Crusius, J., Bratton, J.F., Charette, M.A., Swarzenski, P.W., Tucker, J., Giblin, A.E., Casciotti, K., Cole, M.L., and Valiela, I. Nitrogen biogeochemistry of submarine groundwater discharge: A synthesis. 2009 Geological Society of America Meeting, Portland, Oregon. *Invited*
- Jiang, M., M. Charette, C. Measures, and M. Zhou. Model circulation and Fe transport in Antarctic Peninsula and southern Scotia Sea. 2009 Ocean Carbon Biogeochemistry Meeting, Woods Hole, Massachusetts.
- Charette, M.A. Climate Change and Human Activities at the Land-Ocean Interface: Impacts on Coupled Groundwater-Surface Water Systems. ASLO Aquatic Sciences Meeting 2009, Nice, France. *Invited*
- Abbott, A.N., C. Lamborg, W. Martin, M. Charette, S. Bone, M. Bothner, and P. Drevnick. Mercury Sources and Species in Waquoit Bay and Other Cape Cod Massachusetts Water Bodies. 2008 Fall AGU Meeting, San Francisco, CA.
- Maiti, K., M.A. Charette, K.O. Buesseler, M. Kahru, B.G. Mitchell, C.D. Nevison, and R.F. Keeling. A Synthesis Of In Situ Measured Export Production in the Southern Ocean. 2008 Fall AGU Meeting, San Francisco, CA.
- Dulaiova, H, Chung, E, Gonneea, M E, Henderson, P B, Charette, M A. Pore Water Exchange and Nutrient and Trace Metals Fluxes In a New England Salt Marsh. 2008 GSA Meeting, Houston, Texas.
- Jung, H B, Charette M, and Zheng Y. A Field, Laboratory and Modeling Study on Reactive Transport of Arsenic in a Coastal Aquifer. 2008 GSA Meeting, Houston, Texas.
- Michael, H., M. Charette, and C. Harvey. Mechanisms Driving Submarine Groundwater Discharge and Associated Radium Flux: Implications for the use of Radium as a Tracer. 20th Salt Water Intrusion Meeting, June 2008, Naples, Florida.

- Bourquin, M., P. van Beek, J.L. Reyss, M. Souhaut, M. Charette, and C. Jeandel. ^{228}Ra and ^{226}Ra on the Kerguelen Plateau, Southern Ocean (KEOPS Project). Measurement and Application of Radium and Radon Isotopes in Environmental Sciences, April 2008, Venice, Italy.
- Charette, M. A., Gonnee, M. E., Dulaiova, H. D., and P. J. Morris. Geochemical controls on radium activity in coastal groundwater: results from field and laboratory studies. Measurement and Application of Radium and Radon Isotopes in Environmental Sciences, April 2008, Venice, Italy.
- Charette, M.A., Dulaiova, H.D., and W.S. Moore. Radium Isotope Measurements During the GEOTRACES Intercalibration Cruise. Measurement and Application of Radium and Radon Isotopes in Environmental Sciences, April 2008, Venice, Italy.
- Dulaiova, H., M. E. Gonnee, P. Henderson, and M. Charette. Geochemical and physical sources of radon variation in a subterranean estuary. Measurement and Application of Radium and Radon Isotopes in Environmental Sciences, April 2008, Venice, Italy.
- Jung, H B, Charette M, and Zheng Y. Immobilization of Groundwater Arsenic by Oxidation and Sorption of Iron and Arsenic during Groundwater Discharge in a Subterranean Estuary. Measurement and Application of Radium and Radon Isotopes in Environmental Sciences, April 2008, Venice, Italy.
- Charette, M A, Gonnee, M E, Henderson, P B, Rao, A, Herrera-Silveira, J. Trace Metal Biogeochemistry in Karstic Subterranean Estuaries. 2008 AGU/ASLO Ocean Sciences Meeting, Orlando, Florida.
- Dulaiova, H, Chung, E, Gonnee, M E, Henderson, P B, Charette, M A. Multitudinal Pathways of Groundwater Advection and Associated Nutrient Fluxes in Salt Marsh Estuaries. 2008 AGU/ASLO Ocean Sciences Meeting, Orlando, Florida.
- Kroeger, K D, Charette, M A, Casciotti, K, Gonnee, M, Henderson, P, Rogers, D, Baldwin, S, Edwards, K. Nitrogen Transformations in Submarine Groundwater Discharge Zones: Insights from Isotope Pairing Experiments. 2008 AGU/ASLO Ocean Sciences Meeting, Orlando, Florida.
- Rao, A F, Gonnee, M E, Henderson, P B, Fitzsimmons, J, Morales, S, Herrera-Silveira, J, Charette, M A. Nutrient Biogeochemistry of a Karst Aquifer System and its Influence on the Coastal Ocean in the Northern Yucatán Peninsula, México. 2008 AGU/ASLO Ocean Sciences Meeting, Orlando, Florida.
- Stieglitz T, Bokuniewicz H, Burnett WC, Cable J, Charette M, Kontar E, Martin J, Moore WS, Oberdorfer J, Peterson R, Povinec PP, de Oliveira J, Taniguchi M, 2008. Submarine Groundwater Discharge From a Fractured Rock Aquifer on the Ubatuba Coastline, Brazil: an Overview of the IAEA-UNESCO Project. Eos Trans. AGU, 89(23), West. Pac. Geophys. Meet. Suppl. Abstract H25B-05.

- Charette, M.A., and A. Helminger. Lessons Learned on the Pathway to Technology Transfer of an Automated Seepage Meter. Estuarine Research Federation Meeting, Providence, Rhode Island, November, 2007.
- Dulaiova, H., M. Charette, W. Burnett, M. Gonneea, and P. Henderson. Groundwater Seepage from Subterranean to Surface Estuaries – Examples from Geochemical Tracer Surveys. Estuarine Research Federation Meeting, Providence, Rhode Island, November, 2007.
- Gonneea, M., P. Henderson, A. Mulligan, M. Charette. Submarine Groundwater Discharge and Associated Transport of Nutrients to the Coastal Ocean Along Southwest Florida. Estuarine Research Federation Meeting, Providence, Rhode Island, November, 2007.
- Henderson, P., and M. Charette. Nitrogen Loading into Quonnochohtaug Pond: The Use of Computer Generated Models. Estuarine Research Federation Meeting, Providence, Rhode Island, November, 2007.
- Rao, A., and M. Charette. Trace Element Cycling in a Subterranean Estuary. Estuarine Research Federation Meeting, Providence, Rhode Island, November, 2007.
- Bourquin M., P. van Beek, J-L. Reyss, M. Souhaut, M. Charette, and C. Jeandel. ^{226}Ra activities and $^{226}\text{Ra}/\text{Ba}$ ratios on the Kerguelen plateau (KEOPS project). 2007 Goldschmidt Conference, Cologne, Germany.
- Sáenz, J. E. Hopmans, P. Henderson, M. Charette, K. Casciotti, S. Schouten, J.S. Damsté, and T. Eglington. Biomarker Evidence for Anammox in the Waquoit Bay Subterranean Estuary. International Meeting on Organic Geochemistry (IMOG), Torquay, England, September 2007.
- Planquette, H.; Statham, P.J.; Fones, G.R.; Charette, M.A. Dissolved iron in the vicinity of the Crozet Islands, Southern Ocean. 2007 EGU General Assembly, Vienna, Austria.
- Spiteri, C., C.P. Slomp, M.A. Charette, K. Tuncay, and C. Meile. Reactive transport modeling of flow and nutrient dynamics in a subterranean estuary (Waquoit Bay, MA, USA). International Conference on Water Pollution in natural Porous media at different scales (WAPo), Barcelona, Spain, April 2007.
- Charette, M. A.; Gonneea, M. E.; Henderson, P. B. A two-year time-series of trace metals and nutrients in a coastal aquifer. 2007 Winter ASLO Meeting, Santa Fe, NM.
- Dulaiova, H.; Charette, M. A.; Mitchell, G.B.; Measures, C.; Henderson, P.; Supcharoen, R.; Biller, D. Natural iron fertilization in the Southern Ocean: investigating horizontal iron transport and vertical carbon flux using radium isotopes and thorium-234. 2007 Winter ASLO Meeting, Santa Fe, NM.
- Kroeger, K. D.; Charette, M. A.; Casciotti, K. Nitrogen transformations in submarine groundwater discharge zones. 2007 Winter ASLO Meeting, Santa Fe, NM.

- McCadney, D. M.; Charette, M. A.; Toole, D. A.; Morrison, L.; Kujawinski, L. Groundwater discharge of organic matter: the competition between biological and photochemical degradation processes. 2007 Winter ASLO Meeting, Santa Fe, NM.
- Bourquin M., P. van Beek, J-L. Reyss, M. Souhaut, M. Charette, and C. Jeandel. Radium isotopes to investigate the water mass pathways on the Kerguelen plateau (KEOPS project). 2006 Fall AGU Meeting, San Francisco, CA.
- Morris, P.J., M. Charette, M. Gonneea, H. Dulaiova, P. Henderson, and G. Rago. Radium isotopes as tracers of coastal submarine groundwater discharge - A biogeochemical perspective. Challenger Conference for Marine Science, Oban, Scotland, September 2006.
- Allen, J. D. Bakker, J. Read, R. Pollard, M. Charette, H. Venables, H. Planquette, P. Morris, R. Sanders, M. Moore, S. Seeyave. An 'eddy-centric' bloom north of the Crozet Islands; sub-mesoscale entrainment of island nutrients or vertical diffusion? Challenger Conference for Marine Science, Oban, Scotland, September 2006.
- Morris, P.J., M. Charette, M. Gonneea, H. Dulaiova, P. Henderson, and G. Rago. Radium isotopes as tracers of coastal submarine groundwater discharge - A biogeochemical perspective. Postgraduate Research in Marine Earth Sciences, Oxford, United Kingdom, September 2006.
- Sáenz, J. E. Hopmans, P. Henderson, M. Charette, K. Casciotti, S. Schouten, J.S. Damsté, and T. Eglington. Biomarker Evidence for Anammox in the Waquoit Bay Subterranean Estuary. 2006 Gordon Research Conference on Organic Geochemistry, Portsmouth, NH.
- Charette, M.A., and A. Rago. Barium/calcium ratios within *M. mercenaria*: a potential paleoproxy for submarine groundwater discharge into estuaries. 9th International Estuarine Biogeochemistry Symposium, Warnemunde, Germany, May 2006.
- Charette, M.A., M.E. Gonneea, and E.R. Sholkovitz. Biogeochemical Cycling of Trace Metals in Contrasting Subterranean Estuaries. 2006 AGU/ASLO Ocean Sciences Meeting, Honolulu, Hawaii.
- Bone, S., C. Lamborg, M. Gonneea, and M. Charette. Biogeochemical Cycling of As and Hg in a Subterranean Estuary. 2006 AGU/ASLO Ocean Sciences Meeting, Honolulu, Hawaii.
- Gonneea, M.E., M. Charette, and A. Mulligan. Seasonal Trends in Radium Activities Within the Mixing Zone of a Subterranean Estuary, Waquoit Bay, MA. 2006 AGU/ASLO Ocean Sciences Meeting, Honolulu, Hawaii.
- Charette, M.A. Trace metal and nutrient cycling in subterranean estuaries: Implications for chemical fluxes to the coastal ocean. 2005 International Symposia for Subsurface

Microbiology(ISSM 2005) and Environmental Biogeochemistry (ISEB XVII) Joint Meeting, Jackson Hole, Wyoming.

Mulligan, A.E., and M.A. Charette. Intercomparison of submarine ground water discharge estimates from a sandy unconfined aquifer. 2005 Geological Society of America Meeting, Salt Lake City, Utah.

Spiteri, C., P. Regnier, C.P. Slomp, and M.A. Charette. pH-dependent iron oxide precipitation in a subterranean estuary. 2005 Seventh International Symposium on the Geochemistry of the Earth's Surface, Aix-en-Provence, France.

Kroeger, K.D., M.A. Charette, P.W. Swarzenski, J. Crusius, and J.F. Bratton. Contrasting nitrogen biogeochemistry and fluxes from a temperate and a subtropical coastal aquifer. 2005 Estuarine Research Federation Meeting, Norfolk, Virginia.

Kroeger, K.; P. Swarzenski, M. Charette, J. Crusius, J. Bratton, A. Giblin, J. Tucker, C. Reich, D. Koopmans. Contrasting nitrogen biogeochemistry and fluxes to coastal waters from a temperate and subtropical coastal aquifer. USGS FISC meeting. Orlando, FL May 3-5, 2005

Kroeger, K. D.; Peter W. Swarzenski, John Crusius, John F. Bratton, Matthew A. Charette. Stable N isotopes, noble gases, and isotope pairing experiments as tracers of nitrogen transformations in submarine groundwater discharge zones. Tampa Bay Estuary Program meeting. St. Petersburg, FL Feb. 8-9, 2005.

Crusius, J., D. Koopmans, J.F. Bratton, L. Ryckman, M.A. Charette, K. Halloran, P. Henderson, K. Kroeger, and J. Coleman. Submarine groundwater discharge to Salt Pond (CCNS) estimated from salinity and continuous ^{222}Rn measurements and a box model. 2005 National Estuarine Research Reserve Regional Meeting, Eastham, MA.

Steiglitz, T., W.C. Burnett, H. Bokuniewicz, J. Cable, M. Charett, E. Kontar, S. Krupa, W. Moore, J. Oberdorfer, P. Povinec, M. Taniguchi. The Quantification of Submarine Groundwater Discharge in the Coastal Zone Via Multiple Methods – an IOC/IAEA Initiative. IAG-IAPSO Dynamic Planet 2005, Cairns, Australia.

Coleman, J.A., J.F. Bratton, M.A. Charette, J. Crusius, and J.P. Masterson. (2005) Flow-model, salt-balance, seepage-meter, radon and geophysical estimates of groundwater discharge to a marine embayment, 2005 ASLO Aquatic Sciences Meeting, Salt Lake City, Utah.

Halloran, K., M.A. Charette, P. Henderson, K. Kroeger, L. Ryckman, J. Crusius, and D. Koopmans. Estimating groundwater-derived nitrogen-flux into a coastal embayment: Salt Pond, Cape Cod, Massachusetts. 2004 MBL General Scientific Meetings, Woods Hole, Massachusetts.

Crusius, J., D. Koopmans, J.F. Bratton, L. Ryckman, M.A. Charette, K. Halloran, P. Henderson, K. Kroeger, J. Coleman, and J. Masterson. Submarine groundwater discharge to Salt

- Pond (MA) estimated from continuous ^{222}Rn measurements. 2004 Fall AGU Meeting, San Francisco, California.
- van Beek P., R. François, M. Conte, J.-L. Reyss, S. Honjo, and M.A. Charette. $^{228}\text{Ra}/^{226}\text{Ra}$ activity ratio in suspended matter to track barite formation and transport in the water column, 2004 AGU Ocean Sciences Meeting, Portland, Oregon.
- Allen, M.C., and M.A. Charette. The utility of a continuous radon monitor for tracing water masses and submarine groundwater discharge in the coastal ocean, 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii.
- Rosen, G.P., C.R. Weidman, M. Charette, and J.P. Donnelly. The eutrophication of Waquoit Bay, Massachusetts: from pre-agriculture through urbanization, 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii.
- Rasmussen, L.L., G. Gawarkiewicz, B. Owens, K.O. Buesseler, and M.A. Charette. Gulf Stream influence on coastal biogeochemical transport in the Mid-Atlantic Bight, 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii.
- Kroeger, K.D., M.A. Charette, J.M. Talbot, D.R. Abraham, M.C. Allen, A. Rago, and E.R. Sholkovitz. Transport and transformations of nitrogen and carbon in a subterranean estuary, 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii.
- van Beek P., R. François, M. Conte, J.-L. Reyss, M. Bacon, and M.A. Charette. $^{228}\text{Ra}/^{226}\text{Ra}$ activity ratio in suspended matter to track barite formation and transport in the water column, 2003 Oceans Open Science Conference, Paris, France.
- Sholkovitz, E.R. M.A. Charette, M.C. Allen, C.W. Herbold, A. Rago, and J.M. Testa. The biogeochemistry of the subterranean estuary under Waquoit Bay, 2003 ASLO Aquatic Sciences Meeting, Salt Lake City, Utah.
- Kroeger, K.D., M.A. Charette, J.M. Testa, M.C. Allen, A. Rago, C.W. Herbold, and E.R. Sholkovitz. Nitrogen cycling in a subterranean estuary, 2003 ASLO Aquatic Sciences Meeting, Salt Lake City, Utah.
- Charette, M.A., E.R. Sholkovitz, and C.W. Herbold. A dye-dilution based seepage meter for the autonomous time-series measurement of submarine groundwater discharge, 2003 ASLO Aquatic Sciences Meeting, Salt Lake City, Utah.
- Gramling, C.M., M.A. Charette, D.C. McCorkle, and C.W. Herbold. Multi-tracer measurements of groundwater discharge, 2003 ASLO Aquatic Sciences Meeting, Salt Lake City, Utah.
- Testa, J.M., M.A. Charette, E.R. Sholkovitz, M.C. Allen, A. Rago, and C.W. Herbold. Dissolved iron cycling in the subterranean estuary of a coastal bay: Waquoit Bay, Massachusetts, 2003 ASLO Aquatic Sciences Meeting, Salt Lake City, Utah.

- Charette, M.A. and E.R. Sholkovitz. The geochemistry of a subterranean estuary, 2003 Joint EUG/EGS/AGU Meeting, Nice, France.
- Charette, M.A. and E.R. Sholkovitz. The geochemistry of a subterranean estuary, 2003 Gordon Research Conference on Permeable Sediments, Bates College, Lewiston, Maine.
- Charette, M.A., and E.R. Sholkovitz. The formation of an Iron Curtain in the subterranean estuary of a coastal bay, 2002 Ocean Sciences Meeting, Honolulu, Hawaii.
- Rasmussen, L.L., G. Gawarkiewicz, K.O. Buesseler, M.A. Charette, M.S. Lozier, and W.B. Owens. Influence of boundary currents on cross-shelf transport in the Mid-Atlantic Bight: Radiochemical and hydrographic studies, 2002 Ocean Sciences Meeting, Honolulu, Hawaii.
- Rasmussen, L.L., K.O. Buesseler, M.A. Charette, and W.S. Moore. Unusual radium isotope distributions in the Black Sea, 2002 Ocean Sciences Meeting, Honolulu, Hawaii.
- Buesseler, K.O., J. Andrews, S. Pike, G. Crossin, C. Herbold, M.A. Charette. Does Iron Fertilization Enhance Carbon Sequestration? Particle flux results from the Southern Ocean Iron Experiment, 2002 AGU Fall Meeting, San Francisco, California.
- Charette, M.A., and E.R. Sholkovitz. The formation of an Iron Curtain in the subterranean estuary of a coastal bay, 2001 Geological Society of America Meeting, Boston, MA.
- Sholkovitz, E.R., M.A. Charette, and C. Herbold. The development of instruments to measure flow rate and nutrient levels of groundwater into coastal waters, 2001 Geological Society of America Meeting, Boston, MA.
- Workman, M.W., C. Herbold, and M.A. Charette. Submarine groundwater discharge to a coastal bay as traced by radon-222, 2001 Geological Society of America Meeting, Boston, MA.
- Sholkovitz, E.R., and M.A. Charette. The fractionation of rare earth and other trace elements accompanying the oxidative precipitation of iron oxide from ferrous-iron rich coastal ground waters, EOS, 82 (20), S152.
- Michael, H.A., M.A. Charette, J. Lubetsky, and C. Harvey. (2001) Assessing rates and mechanisms of submarine groundwater discharge: a combined approach using seepage meters and radium isotopes, EOS, 82 (20), S153.
- Hasselov, M., K.O. Buesseler, M.A. Charette, C. Herbold, and S.M. Pike. (2001) The application of cross-flow ultrafiltration to determine the abundance of colloids and associated elements in anoxic ferrous-rich ground waters, EOS, 82 (20), S161.
- Charette, M.A., K.O. Buesseler, and J.E. Andrews. (2000) Utility of radium isotopes for evaluating the input and transport of groundwater-derived nitrogen to a Cape Cod

- estuary, Symposium on *Nutrient Overenrichment of Coastal Waters: Global Patterns of Cause and Effect*, National Academy of Sciences, Washington D.C., October, 2000.
- S.B. Moran, C.C. Chen, S.E. Weinstein, R.L. Edwards, H.N. Edmonds, M.A. Charette. (2000) ^{230}Th and ^{231}Pa in the Equatorial and South Atlantic Ocean, EOS, 81 (48), F619.
- S.E. Weinstein, S. B. Moran, M. A. Charette, and J. N. Smith. (2000) Stable Pb isotope systematics and Pb fluxes in a coastal regime: the Gulf of Maine-Scotian Shelf, EOS, 81 (48), F620.
- Charette, M.A., and K.O. Buesseler. (2000) An unexpected delay in the onset of particle export during an iron fertilization experiment in the Southern Ocean, EOS, 80 (49), OS31.
- Andrews, J.A., M.A. Charette, R. Crawford, R. Splivalo, and K.O. Buesseler. (2000) Utility of radium isotopes for evaluating the input and transport of groundwater-derived nitrogen in a Cape Cod estuary, EOS, 80 (49), OS15.
- Moran, S.B., M.A. Charette, S.M. Pike and C. A. Wicklund. (2000) Differences in seawater particulate organic carbon concentration in samples collected using small-volume and large-volume methods: the importance of DOC adsorption to the filter blank, EOS, 80 (49), OS157.
- Trull, T.W., M.A. Charette, S. Nodder, and B. McNeil. (2000) Carbon isotopic composition of SOIREE suspended and sinking particulates, EOS, 80 (49), OS192.
- Pike, S.M., M.A. Charette, S.B. Moran and C.H. Pilskaln. (1998) Water column removal of trace metals in the Gulf of Maine, EOS 79 (17):S188.
- S.B. Moran and M.A. Charette. (1998) Rates of particle scavenging and particulate organic carbon export estimated using ^{234}Th as a tracer in the subtropical and equatorial Atlantic Ocean, EOS 79 (1):OS117.
- Charette, M.A., S.B. Moran, J.K.B. Bishop, D. Thibault, and S. Roy. (1998) ^{234}Th as a tracer of particulate organic carbon export in the subarctic NE Pacific Ocean during the Canadian JGOFS Program (Phase II), EOS 79 (1):OS116.
- Charette, M.A. and S.B. Moran. (1997) ^{234}Th as a tracer of the export flux of particulate organic carbon in the southern and equatorial Atlantic Ocean., Gordon Research Conference on Chemical Oceanography, Meriden, New Hampshire.
- Hettinger, L.K., J.A. Hoff, R.L. Edwards, S.B. Moran, and M.A. Charette. (1997) TIMS measurements of ^{231}Pa and ^{230}Th in 1-Liter Samples from the Western South Atlantic, EOS 78 (46):F382.

Charette, M.A., S.B. Moran and C.H. Pilskaln. (1996) Particulate organic carbon export in the central Gulf of Maine estimated from $^{234}\text{Th}/^{238}\text{U}$ disequilibria., Gulf of Maine Ecosystem Dynamics Symposium, St. Andrews, New Brunswick, CANADA.

Pike, S.M., M.A. Charette, S.B. Moran and C.H. Pilskaln. (1996) Geochemical mass balance of lead in the Gulf of Maine, Gulf of Maine Ecosystem Dynamics Symposium, St. Andrews, New Brunswick, CANADA.

WHOI Presentations:

- Marine Chemistry and Geochemistry Seminar Series, Woods Hole Oceanographic Institution, Woods Hole, MA, February 1997, October 1999, January 2002, December 2003, May 2005, October 2006, March 2008, July 2010.
- Summer Student Fellow Lecture Series, Woods Hole Oceanographic Institution, Woods Hole, MA, July 2005, August 2006, July 2010.
- In situ Sensors Seminar Series, Woods Hole Oceanographic Institution, Woods Hole, MA, November, 2005.
- Applied Ocean Physics and Engineering Department Seminar Series, Woods Hole Oceanographic Institution, Woods Hole, MA, June 2010.

Invited Presentations:

- Dissertation Symposium on Chemical Oceanography (DISCO), Honolulu, Hawaii, October 1997.
- Seminar in Chemical Oceanography, University of Rhode Island, Narragansett, RI, December 1998.
- Southcoast Learning Network, Woods Hole, MA, September 2000.
- Seminar in Chemical Oceanography, University of Rhode Island, Narragansett, RI, November 2000.
- University of Delaware, Lewes, DE, November 2000.
- Ecosystems Center Seminar Series, Marine Biological Laboratory, Woods Hole, MA, February 2001.
- Massachusetts Institute of Technology, Cambridge, MA, February 2001.
- University of Massachusetts, Boston, MA, April 2001.
- SCOR Working Group 112 on Submarine Groundwater Discharge, Catania, Italy, June 2001.
- U.S. Naval College visit to Woods Hole Oceanographic Institution, October 2001.
- University of Barcelona, Spain. September 2003.
- IAEA/IOC Working Group on SGD, Monte Carlo, Monaco, June 2004.
- Stony Brook University, Stony Brook, NY, October 2004.
- Utrecht University, Utrecht, The Netherlands, January 2005.
- University of South Carolina, Columbia, SC, February 2005.
- NOAA Alliance for Coastal Technology Workshop on Application of Sensor Technology to Assessing Groundwater-Surface Water Interactions in the Coastal Zone, Skidaway Institute of Oceanography, Savannah, GA, March 2005.
- Florida State University, Tallahassee, FL, April 2005.
- International Symposia for Subsurface Microbiology and Environmental Biogeochemistry, Jackson Hole, Wyoming, August 2005.

- 75th Anniversary Open House Symposium, Woods Hole Oceanographic Institution, Woods Hole, MA, September 2005.
- Geosciences/Marine Chemistry and Geochemistry Seminar Series, Scripps Institution of Oceanography, La Jolla, CA, October 2005.
- National Oceanography Center, Southampton, UK, March 2006.
- LEGOS Seminar Series, Laboratoire d'Etudes en Geophysique et Oceanographie Spatiales, Toulouse, France, May 2006.
- AmeriCorps Water Resources Training Session, Harwich, MA, September 2006.
- Oceans Seminar Series, Stanford University, Stanford, CA, November 2006.
- University of Delaware, Lewes, DE, May 2007.
- AmeriCorps Water Resources Training Session, Eastham, MA, September 2007.
- Utrecht University, Utrecht, The Netherlands, September 2007.
- Dauphin Island Sea Lab (U. South Alabama), Dauphin Island, AL, January 2008.
- University of Miami (RSMAS), Key Biscayne, FL, January 2008.
- University of Guam, POETS Seminar Series, Mangilao, Guam, November 2008.
- GLOBE Teacher Workshop, Woods Hole Oceanographic Institution, Woods Hole, MA, March 2009.
- Paul M. Fye Society Lecture, Woods Hole Oceanographic Institution, August 2009.
- International Atomic Energy Association Marine Environment Lab, Monte Carlo, Monaco, September 2009.
- Earth and Ocean Sciences, University of Southern California, Los Angeles, CA, November 2010.
- Environmental, Earth and Ocean Sciences, University of Massachusetts, Boston, MA, March 2011.
- State Key Lab of Marine Environmental Science, East China Normal University, Shanghai, China, April 2011.
- State Key Lab of Marine Environmental Science, Xiamen University, Xiamen, China, April 2011.
- Sea Grant College, Massachusetts Institute of Technology, Cambridge, MA, June 2011.
- Distinguished Lecturer Series, Department of Geology, University of Wyoming, Laramie, WY, September 2011.