

# Daniel Ohnemus

## Curriculum Vitae

**Position** Assistant Professor, Skidaway Institute of Oceanography, Dept. of Marine Sciences, University of Georgia  
**Email** dan@uga.edu  
**Phone** 912-598-2414  
**Research Interests** Trace element marine biogeochemistry; interactions between phytoplankton, non-living minerals, and the biological carbon pump; bioavailability of aerosol dust; modeling of dust-upper ocean particle dynamics.

### Professional Experience

Sep 2018–Present Assistant Professor, Skidaway Institute of Oceanography, Dept. of Marine Sciences, University of Georgia, Savannah GA, USA  
Feb 2014–Sept 2018 Post-doctoral Researcher, Bigelow Laboratory for Ocean Sciences, East Boothbay ME, USA

### Education and Degrees

2014 Doctor of Philosophy, Oceanography, Chemical and Physical, Massachusetts Institute of Technology, MA, United States  
2004 Bachelor of Arts, Chemistry, General, Williams College, MA, United States

### Honors and Awards

Feb 2025 Student Career Success Influencer Award 2024, Scott Williams, University of Georgia Career Center

### Invited Seminars and Poster Presentations

10 Dec 2024 The Hawaii dust regime: Patterns and variability in aerosol mineral dust from MERRA-2 at station ALOHA and the Hawaii aerosol time-series, AGU Annual Meeting  
Ohnemus, D (International)  
10 Dec 2024 Trends in the abundance and provenance of lithogenic particulate trace elements in the South Pacific and Southern Oceans along the US GEOTRACES

- GP17-OCE Section, AGU Annual Meeting  
Ohnemus, D; Ricci, MJ (International)
- 10 Dec 2024 Results from the Hawaii Aerosol Time-series reveal seasonally contrasting aerosol solubility in the North Pacific oligotrophic gyre, driven by source diversity in spring and fall dust pulses, American Geophysical Meeting  
Buck, C; Kollman, C; Ohnemus, D (International)
- 10 Dec 2024 A decade of Beryllium-7 measurements in the Pacific, Indian, and Southern Oceans, American Geophysical Union Fall Meeting  
Buck, C; Kollman, C; Ohnemus, D; Sheridan, MT (International)
- 19 Jul 2023 Preliminary results from the Hawai'i Aerosol Time-Series: Linking atmospheric deposition with water column size-fractionated particulate trace element composition, Gordon Research Conference  
Buck, C; Ohnemus, D; Ricci, MJ (International)
- 2023 Early Observations of Aerosols from the Hawaii Aerosol Time-Series, Goldschmidt2023  
Buck, C; Ohnemus, D
- 2023 Radium-224: A Potential New Tracer for Aerosol Deposition to the Surface Ocean, Goldschmidt2023  
Buck, C; Ohnemus, D
- 2023 Dust Deposition to the Bermuda Region: A Comparison of Estimates Using Seasonally-resolved Measurements of Aluminum in Water-column, Aerosol, and Rain Samples, Old Dominion University  
Ohnemus, D (University)
- 14 Oct 2022 The Bermuda Atlantic Iron Time-Series: A Look at Interseasonal Trace Element Dynamics, University of California Santa Cruz, Departmental Seminar Series, Dept. of Ocean Sciences  
Ohnemus, D (Seminar)

## Publications

1. Mallick, D., Wang, X., Miletto, M., Krause, J. W., Ohnemus, D. C., Planavsky, N. J., . . . Tebo, B. M. (2026). Chromium isotope fractionation in the redox-stratified Chesapeake Bay. *Applied Geochemistry*, 197, 106671. doi:[10.1016/j.apgeochem.2025.106671](https://doi.org/10.1016/j.apgeochem.2025.106671)
2. Ohnemus, D. (2025). Trace elements in the ocean attributed to a surprising source. *NATURE*, 642(8068), 575-576. doi:[10.1038/d41586-025-01681-0](https://doi.org/10.1038/d41586-025-01681-0)
3. Williams, T. E., Sedwick, P. N., Sohst, B. M., Buck, K. N., Caprara, S., Johnson, R. J., . . . Twining, B. S. (2025). Dust Deposition to the Sargasso Sea: A Comparison of Estimates Using Aluminum in the Surface Ocean Versus Aerosols and Rainwater. *GEOPHYSICAL RESEARCH LETTERS*, 52(8), 10 pages. doi:[10.1029/2024GL113217](https://doi.org/10.1029/2024GL113217)
4. Li, Y., Bishop, J. K. B., Lam, P. J., & Ohnemus, D. C. (2025). Analysis of Satellite and In Situ Optical Proxies for PIC and POC During GEOTRACES GP15 and GP17-OCE Transects From

- the Subarctic North Pacific to the Southern Ocean. *EARTH AND SPACE SCIENCE*, 12(4), 21 pages. doi:[10.1029/2024EA004070](https://doi.org/10.1029/2024EA004070)
5. Till, C. P., Hurst, M. P., Freiburger, R. B., Ohnemus, D. C., Twining, B. S., Marchetti, A., . . . Pierce, E. (2025). Contrasting the Marine Biogeochemical Cycles of Iron and Scandium in the California Current System. *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*, 130(4), 20 pages. doi:[10.1029/2024JC022087](https://doi.org/10.1029/2024JC022087)
  6. Ohnemus, D. C., Kollman, C., Marsay, C. M., Ricci, M., & Buck, C. S. (2025). The Hawaii Dust Regime: Patterns and Variability in Aerosol Mineral Dust From MERRA-2 at Station ALOHA and the Hawaii Aerosol Time-Series. *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*, 130(1), 17 pages. doi:[10.1029/2024JD041860](https://doi.org/10.1029/2024JD041860)
  7. Sofen, L. E., Antipova, O. A., Buck, K. N., Caprara, S., Chacho, L., Johnson, R. J., . . . Twining, B. S. (2023). Authigenic Iron Is a Significant Component of Oceanic Labile Particulate Iron Inventories. *GLOBAL BIOGEOCHEMICAL CYCLES*, 37(12), 23 pages. doi:[10.1029/2023GB007837](https://doi.org/10.1029/2023GB007837)
  8. Tagliabue, A., Buck, K. N. N., Sofen, L. E. E., Twining, B. S. S., Aumont, O., Boyd, P. W. W., . . . Sedwick, P. (2023). Authigenic mineral phases as a driver of the upper-ocean iron cycle. *NATURE*, 620(7972), 104-+. doi:[10.1038/s41586-023-06210-5](https://doi.org/10.1038/s41586-023-06210-5)
  9. Sedwick, P. N., Sohst, B. M., Buck, K. N., Caprara, S., Johnson, R. J., Ohnemus, D. C., . . . Williams, T. E. (2023). Atmospheric Input and Seasonal Inventory of Dissolved Iron in the Sargasso Sea: Implications for Iron Dynamics in Surface Waters of the Subtropical Ocean. *GEOPHYSICAL RESEARCH LETTERS*, 50(6), 9 pages. doi:[10.1029/2022GL102594](https://doi.org/10.1029/2022GL102594)
  10. Sofen, L. E., Antipova, O. A., Ellwood, M. J., Gilbert, N. E., LeClerc, G. R., Lohan, M. C., . . . Twining, B. S. (2022). Trace metal contents of autotrophic flagellates from contrasting open-ocean ecosystems. *LIMNOLOGY AND OCEANOGRAPHY LETTERS*, 7(4), 354-362. doi:[10.1002/lol2.10258](https://doi.org/10.1002/lol2.10258)
  11. Rahman, S., Shiller, A. M., Anderson, R. F., Charette, M. A., Hayes, C. T., Gilbert, M., . . . Vivancos, S. M. (2022). Dissolved and Particulate Barium Distributions Along the US GEOTRACES North Atlantic and East Pacific Zonal Transects (GA03 and GP16): Global Implications for the Marine Barium Cycle. *GLOBAL BIOGEOCHEMICAL CYCLES*, 36(6), 33 pages. doi:[10.1029/2022GB007330](https://doi.org/10.1029/2022GB007330)
  12. Janssen, D. J., Rickli, J., Abbott, A. N., Ellwood, M. J., Twining, B. S., Ohnemus, D. C., . . . Jaccard, S. L. (2021). Release from biogenic particles, benthic fluxes, and deep water circulation control Cr and  $\delta^{53}\text{Cr}$  distributions in the ocean interior. *EARTH AND PLANETARY SCIENCE LETTERS*, 574, 13 pages. doi:[10.1016/j.epsl.2021.117163](https://doi.org/10.1016/j.epsl.2021.117163)
  13. Flanagan, O., Annett, A., Sherrell, R., Fitzsimmons, J., Ohnemus, D., & Lohan, M. (2021). Controls on the Distribution of Particulate Trace Metals across the Western Antarctic Peninsula Shelf. In *Goldschmidt2021 abstracts*. European Association of Geochemistry. doi:[10.7185/gold2021.6956](https://doi.org/10.7185/gold2021.6956)
  14. Rahman, S., Shiller, A., Anderson, R., Hayes, C., Lam, P., Ohnemus, D., . . . Pavia, F. (2021). Particulate excess Ba as a proxy for biological productivity along the North Atlantic and South

- Pacific GEOTRACES transects. In *Goldschmidt2021 abstracts*. European Association of Geochemistry. doi:[10.7185/gold2021.6603](https://doi.org/10.7185/gold2021.6603)
15. Shiller, A., Rahman, S., Anderson, R., Charette, M., Hayes, C., Gilbert, M., . . . Vivancos, S. (2021). Biogeochemical processes controlling the marine Ba cycle: dissolved and particulate barium distributions along the US GEOTRACES North Atlantic and South Pacific Zonal Transects (GA03 and GP16). In *Goldschmidt2021 abstracts*. European Association of Geochemistry. doi:[10.7185/gold2021.6115](https://doi.org/10.7185/gold2021.6115)
  16. Janssen, D., Rickli, J., Abbott, A., Ellwood, M., Twining, B., Ohnemus, D., . . . Jaccard, S. (2021). Elucidating biogenic components of the  $\delta^{53}\text{Cr}$  cycle in the modern ocean. In *Goldschmidt2021 abstracts*. European Association of Geochemistry. doi:[10.7185/gold2021.6050](https://doi.org/10.7185/gold2021.6050)
  17. Twining, B. S., Antipova, O., Chappell, P. D., Cohen, N. R., Jacquot, J. E., Mann, E. L., . . . Tagliabue, A. (2021). Taxonomic and nutrient controls on phytoplankton iron quotas in the ocean. *LIMNOLOGY AND OCEANOGRAPHY LETTERS*, 6(2), 96-106. doi:[10.1002/lo12.10179](https://doi.org/10.1002/lo12.10179)
  18. Meskhidze, N., Voelker, C., Al-Abadleh, H. A., Barbeau, K., Bressac, M., Buck, C., . . . Ye, Y. (2019). Perspective on identifying and characterizing the processes controlling iron speciation and residence time at the atmosphere-ocean interface. *MARINE CHEMISTRY*, 217, 16 pages. doi:[10.1016/j.marchem.2019.103704](https://doi.org/10.1016/j.marchem.2019.103704)
  19. Tagliabue, A., Bowie, A. R., DeVries, T., Ellwood, M. J., Landing, W. M., Milne, A., . . . Boyd, P. W. (2019). The interplay between regeneration and scavenging fluxes drives ocean iron cycling. *NATURE COMMUNICATIONS*, 10, 8 pages. doi:[10.1038/s41467-019-12775-5](https://doi.org/10.1038/s41467-019-12775-5)
  20. Ohnemus, D. C., Torrie, R., & Wining, B. S. (2019). Exposing the Distributions and Elemental Associations of Scavenged Particulate Phases in the Ocean Using Basin-Scale Multi-Element Data Sets. *GLOBAL BIOGEOCHEMICAL CYCLES*, 33(6), 725-748. doi:[10.1029/2018GB006145](https://doi.org/10.1029/2018GB006145)
  21. Hayes, C. T., Black, E. E., Anderson, R. F., Baskaran, M., Buesseler, K. O., Charette, M. A., . . . Tang, Y. (2018). Flux of Particulate Elements in the North Atlantic Ocean Constrained by Multiple Radionuclides. *GLOBAL BIOGEOCHEMICAL CYCLES*, 32(12), 1738-1758. doi:[10.1029/2018GB005994](https://doi.org/10.1029/2018GB005994)
  22. Ohnemus, D. C., Krause, J. W., Brzezinski, M. A., Collier, J. L., Baines, S. B., & Twining, B. S. (2018). The chemical form of silicon in marine Synechococcus. *MARINE CHEMISTRY*, 206, 44-51. doi:[10.1016/j.marchem.2018.08.004](https://doi.org/10.1016/j.marchem.2018.08.004)
  23. Schlitzer, R., Anderson, R. F., Dodas, E. M., Lohan, M., Geibere, W., Tagliabue, A., . . . Zurbrick, C. (2018). The GEOTRACES Intermediate Data Product 2017. *CHEMICAL GEOLOGY*, 493, 210-223. doi:[10.1016/j.chemgeo.2018.05.040](https://doi.org/10.1016/j.chemgeo.2018.05.040)
  24. Bourne, H. L., Bishop, J. K. B., Lam, P. J., & Ohnemus, D. C. (2018). Global Spatial and Temporal Variation of Cd:P in Euphotic Zone Particulates. *GLOBAL BIOGEOCHEMICAL CYCLES*, 32(7), 1123-1141. doi:[10.1029/2017GB005842](https://doi.org/10.1029/2017GB005842)
  25. Hoffman, C. L., Nicholas, S. L., Ohnemus, D. C., Fitzsimmons, J. N., Sherrell, R. M., German, C. R., . . . Toner, B. M. (2018). Near-field iron and carbon chemistry of non-buoyant hydrothermal plume particles, Southern East Pacific Rise 15°S. *MARINE CHEMISTRY*, 201, 183-197. doi:[10.1016/j.marchem.2018.01.011](https://doi.org/10.1016/j.marchem.2018.01.011)

26. Ohnemus, D. C., Lam, P. J., & Twining, B. S. (2018). Optical observation of particles and responses to particle composition in the GEOTRACES GP16 section. *MARINE CHEMISTRY*, 201, 124-136. doi:[10.1016/j.marchem.2017.09.004](https://doi.org/10.1016/j.marchem.2017.09.004)
27. Hawco, N. J., Lam, P. J., Lee, J. -M., Ohnemus, D. C., Noble, A. E., Wyatt, N. J., . . . Saito, M. A. (2018). Cobalt scavenging in the mesopelagic ocean and its influence on global mass balance: Synthesizing water column and sedimentary fluxes. *MARINE CHEMISTRY*, 201, 151-166. doi:[10.1016/j.marchem.2017.09.001](https://doi.org/10.1016/j.marchem.2017.09.001)
28. Saito, M. A., Noble, A. E., Hawco, N., Twining, B. S., Ohnemus, D. C., John, S. G., . . . McIlvin, M. (2017). The acceleration of dissolved cobalt's ecological stoichiometry due to biological uptake, remineralization, and scavenging in the Atlantic Ocean. *BIOGEOSCIENCES*, 14(20), 4637-4662. doi:[10.5194/bg-14-4637-2017](https://doi.org/10.5194/bg-14-4637-2017)
29. Brzezinski, M. A., Krause, J. W., Baines, S. B., Collier, J. L., Ohnemus, D. C., & Twining, B. S. (2017). PATTERNS AND REGULATION OF SILICON ACCUMULATION IN SYNECHOCOCCUS SPP. *JOURNAL OF PHYCOLOGY*, 53(4), 746-761. doi:[10.1111/jpy.12545](https://doi.org/10.1111/jpy.12545)
30. Noble, A. E., Ohnemus, D. C., Hawco, N. J., Lam, P. J., & Saito, M. A. (2017). Coastal sources, sinks and strong organic complexation of dissolved cobalt within the US North Atlantic GEOTRACES transect GA03. *BIOGEOSCIENCES*, 14(11), 2715-2739. doi:[10.5194/bg-14-2715-2017](https://doi.org/10.5194/bg-14-2715-2017)
31. Krause, J. W., Brzezinski, M. A., Baines, S. B., Collier, J. L., Twining, B. S., & Ohnemus, D. C. (2017). Picoplankton contribution to biogenic silica stocks and production rates in the Sargasso Sea. *GLOBAL BIOGEOCHEMICAL CYCLES*, 31(5), 762-774. doi:[10.1002/2017GB005619](https://doi.org/10.1002/2017GB005619)
32. Kohut, J. T., Kustka, A. B., Hiscock, M. R., Lam, P. J., Measures, C., Milligan, A., . . . Swartz, J. M. (2017). Mesoscale variability of the summer bloom over the northern Ross Sea shelf: A tale of two banks. *JOURNAL OF MARINE SYSTEMS*, 166, 50-60. doi:[10.1016/j.jmarsys.2016.06.009](https://doi.org/10.1016/j.jmarsys.2016.06.009)
33. Hatta, M., Measures, C. I., Lam, P. J., Ohnemus, D. C., Auro, M. E., Grand, M. M., & Selph, K. E. (2017). The relative roles of modified circumpolar deep water and benthic sources in supplying iron to the recurrent phytoplankton blooms above Pennell and Mawson Banks, Ross Sea, Antarctica. *JOURNAL OF MARINE SYSTEMS*, 166, 61-72. doi:[10.1016/j.jmarsys.2016.07.009](https://doi.org/10.1016/j.jmarsys.2016.07.009)
34. Ohnemus, D. C., Rauschenberg, S., Cutter, G. A., Fitzsimmons, J. N., Sherrell, R. M., & Twining, B. S. (2017). Elevated trace metal content of prokaryotic communities associated with marine oxygen deficient zones. *LIMNOLOGY AND OCEANOGRAPHY*, 62(1), 3-25. doi:[10.1002/lno.10363](https://doi.org/10.1002/lno.10363)
35. Ohnemus, D. C., Rauschenberg, S., Krause, J. W., Brzezinski, M. A., Collier, J. L., Geraci-Yee, S., . . . Twining, B. S. (2016). Silicon content of individual cells of Synechococcus from the North Atlantic Ocean. *MARINE CHEMISTRY*, 187, 16-24. doi:[10.1016/j.marchem.2016.10.003](https://doi.org/10.1016/j.marchem.2016.10.003)
36. Anderson, R. F., Cheng, H., Edwards, R. L., Fleisher, M. Q., Hayes, C. T., Huang, K. -F., . . . Shelley, R. U. (2016). How well can we quantify dust deposition to the ocean?. *PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES*, 374(2081), 26 pages. doi:[10.1098/rsta.2015.0285](https://doi.org/10.1098/rsta.2015.0285)

37. Hawco, N. J., Ohnemus, D. C., Resing, J. A., Twining, B. S., & Saito, M. A. (2016). A dissolved cobalt plume in the oxygen minimum zone of the eastern tropical South Pacific. *BIOGEOSCIENCES*, 13(20), 5697-5717. doi:[10.5194/bg-13-5697-2016](https://doi.org/10.5194/bg-13-5697-2016)
38. Mawji, E., Schlitzer, R., Dodas, E. M., Abadie, C., Abouchami, W., Anderson, R. F., . . . Zimmer, L. A. (2015). The GEOTRACES Intermediate Data Product 2014. *MARINE CHEMISTRY*, 177, 1-8. doi:[10.1016/j.marchem.2015.04.005](https://doi.org/10.1016/j.marchem.2015.04.005)
39. Lam, P. J., Ohnemus, D. C., & Auro, M. E. (2015). Size-fractionated major particle composition and concentrations from the US GEOTRACES North Atlantic Zonal Transect. *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*, 116, 303-320. doi:[10.1016/j.dsr2.2014.11.020](https://doi.org/10.1016/j.dsr2.2014.11.020)
40. Ohnemus, D. C., & Lam, P. J. (2015). Cycling of lithogenic marine particles in the US GEOTRACES North Atlantic transect. *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*, 116, 283-302. doi:[10.1016/j.dsr2.2014.11.019](https://doi.org/10.1016/j.dsr2.2014.11.019)
41. Revels, B. N., Ohnemus, D. C., Lam, P. J., Conway, T. M., & John, S. G. (2015). The isotopic signature and distribution of particulate iron in the North Atlantic Ocean. *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*, 116, 321-331. doi:[10.1016/j.dsr2.2014.12.004](https://doi.org/10.1016/j.dsr2.2014.12.004)
42. Twining, B. S., Rauschenberg, S., Morton, P. L., Ohnemus, D. C., & Lam, P. J. (2015). Comparison of particulate trace element concentrations in the North Atlantic Ocean as determined with discrete bottle sampling and in situ pumping. *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*, 116, 273-282. doi:[10.1016/j.dsr2.2014.11.005](https://doi.org/10.1016/j.dsr2.2014.11.005)
43. Noble, A. E., Echevoyen-Sanz, Y., Boyle, E. A., Ohnemus, D. C., Lam, P. J., Kayser, R., . . . Smethie, W. (2015). Dynamic variability of dissolved Pb and Pb isotope composition from the US North Atlantic GEOTRACES transect. *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY*, 116, 208-225. doi:[10.1016/j.dsr2.2014.11.011](https://doi.org/10.1016/j.dsr2.2014.11.011)
44. Hayes, C. T., Anderson, R. F., Fleisher, M. Q., Vivancos, S. M., Lam, P. J., Ohnemus, D. C., . . . Moran, S. B. (2015). Intensity of Th and Pa scavenging partitioned by particle chemistry in the North Atlantic Ocean. *MARINE CHEMISTRY*, 170, 49-60. doi:[10.1016/j.marchem.2015.01.006](https://doi.org/10.1016/j.marchem.2015.01.006)
45. Lamborg, C. H., Hammerschmidt, C. R., Bowman, K. L., Swarr, G. J., Munson, K. M., Ohnemus, D. C., . . . Saito, M. A. (2014). A global ocean inventory of anthropogenic mercury based on water column measurements. *NATURE*, 512(7512), 65-+. doi:[10.1038/nature13563](https://doi.org/10.1038/nature13563)
46. Ohnemus, D. C., Auro, M. E., Sherrell, R. M., Lagerstrom, M., Morton, P. L., Twining, B. S., . . . Lam, P. J. (2014). Laboratory intercomparison of marine particulate digestions including Piranha: a novel chemical method for dissolution of polyethersulfone filters. *LIMNOLOGY AND OCEANOGRAPHY-METHODS*, 12, 530-547. doi:[10.4319/lom.2014.12.530](https://doi.org/10.4319/lom.2014.12.530)
47. Ohnemus, D. C. (2014). The biogeochemistry of marine particulate trace metals. doi:[10.1575/1912/6353](https://doi.org/10.1575/1912/6353)
48. Noble, A. E., Lamborg, C. H., Ohnemus, D. C., Lam, P. J., Goepfert, T. J., Measures, C. I., . . . Saito, M. A. (2012). Basin-scale inputs of cobalt, iron, and manganese from the Benguela-Angola front to the South Atlantic Ocean. *LIMNOLOGY AND OCEANOGRAPHY*, 57(4), 989-1010. doi:[10.4319/lo.2012.57.4.0989](https://doi.org/10.4319/lo.2012.57.4.0989)

49. Lam, P. J., Ohnemus, D. C., & Marcus, M. A. (2012). The speciation of marine particulate iron adjacent to active and passive continental margins. *GEOCHIMICA ET COSMOCHIMICA ACTA*, 80, 108-124. doi:[10.1016/j.gca.2011.11.044](https://doi.org/10.1016/j.gca.2011.11.044)
50. Thompson, R. B., Zeng, H. -H., Ohnemus, D., McCranor, B., Cramer, M., & Moffett, J. (2008). INSTRUMENTATION FOR FLUORESCENCE-BASED FIBER OPTIC BIOSENSORS. In L. Brand, & M. L. Johnson (Eds.), *FLUORESCENCE SPECTROSCOPY* (Vol. 450, pp. 311-337). ELSEVIER ACADEMIC PRESS INC. doi:[10.1016/S0076-6879\(08\)03415-0](https://doi.org/10.1016/S0076-6879(08)03415-0)
51. Thompson, R. B., Zeng, H., Ohnemus, D., McCranor, B., Cramer, M., & Moffett, J. (2008). Chapter 15 Instrumentation for Fluorescence-Based Fiber Optic Biosensors. *Methods in Enzymology*, 450, 311-337.

### Grants and Contracts (Awarded)

1. Collaborative Research: Linking size distribution, solubility and deposition flux of aerosol trace elements: a North Atlantic time-series study  
NATIONAL SCIENCE FOUNDATION, 2343386, 15 Jun 2024–31 May 2027  
Amount: \$ 367,399 (US), Role: Co-investigator of
2. Collaborative Research: US GEOTRACES GP17-OCE: Size-Fractionated Particle Collection and Analysis from Ultra-Oligotrophic to Antarctic Waters  
NATIONAL SCIENCE FOUNDATION, 2049341, 01 Aug 2021–31 Jul 2026  
Amount: \$ 696,898 (US), Role: Principal investigator of
3. Collaborative Research: US GEOTRACES GP17-ANT: Characterizing the composition, scavenging efficiency and bioavailability of size-fractionated particles  
NATIONAL SCIENCE FOUNDATION, 2123606, 01 Nov 2021–31 Oct 2026  
Amount: \$ 197,659 (US), Role: Principal investigator of
4. Hawaii Aerosol Time-Series (HATS):Quantifying Marine Dust Deposition and Composition in an Oligotrophic Gyre  
NATIONAL SCIENCE FOUNDATION, 1949660, 01 Sep 2020–31 Aug 2026  
Amount: \$ 1,074,114 (US), Role: Co-investigator of

### Courses Taught

Spring 2026	Doctoral Research (MARS 9000)
	Doctoral Dissertation (MARS 9300)
Fall 2025	Biological and Chemical Oceanography (MARS 4200)
	Global Biogeochemical Cycles (MARS 4810)
	Global Biogeochemical Cycles (MARS 4810)
	Advanced Topics in Ocean Science (MARS 4850)
	Faculty-Mentored Undergraduate Research I (MARS 4960R)

	Biological and Chemical Oceanography (MARS 6200)
	Global Biogeochemical Cycles (MARS 6810)
	Global Biogeochemical Cycles (MARS 6810)
	Doctoral Research (MARS 9000)
Summer 2025	Doctoral Research (MARS 9000)
Spring 2025	Doctoral Research (MARS 9000)
	Doctoral Dissertation (MARS 9300)
Fall 2024	Biological and Chemical Oceanography (MARS 4200)
	Global Biogeochemical Cycles (MARS 4810)
	Global Biogeochemical Cycles (MARS 4810)
	Biological and Chemical Oceanography (MARS 6200)
	Global Biogeochemical Cycles (MARS 6810)
	Global Biogeochemical Cycles (MARS 6810)
	Doctoral Research (MARS 9000)
Summer 2024	Doctoral Research (MARS 9000)
Spring 2024	Doctoral Research (MARS 9000)
Fall 2023	Biological and Chemical Oceanography (MARS 4200)
	Global Biogeochemical Cycles (MARS 4810)
	Global Biogeochemical Cycles (MARS 4810)
	Faculty-Mentored Undergraduate Research I (MARS 4960R)
	Biological and Chemical Oceanography (MARS 6200)
	Global Biogeochemical Cycles (MARS 6810)
	Doctoral Research (MARS 9000)
Summer 2023	Doctoral Research (MARS 9000)
Spring 2023	Doctoral Research (MARS 9000)
Fall 2022	Biological and Chemical Oceanography (MARS 4200)
	Global Biogeochemical Cycles (MARS 4810)
	Global Biogeochemical Cycles (MARS 4810)
	Biological and Chemical Oceanography (MARS 6200)
	Doctoral Research (MARS 9000)

Summer 2022	Doctoral Research (MARS 9000)
Spring 2022	Internship in Biology (BIOL 4940)
	Seminar in Hydrobiology (MARS 8130)
	Seminar in Hydrobiology (MARS 8130)
	Doctoral Research (MARS 9000)
Fall 2021	Biological and Chemical Oceanography (MARS 4200)
	Biological and Chemical Oceanography (MARS 6200)
	Seminar in Hydrobiology (MARS 8130)
	Seminar in Hydrobiology (MARS 8130)
	Research Techniques in Marine Science (MARS 8900)
	Doctoral Research (MARS 9000)
Summer 2021	Doctoral Research (MARS 9000)
Spring 2021	Global Biogeochemical Cycles (MARS 4810)
	Global Biogeochemical Cycles (MARS 6810)
	Global Biogeochemical Cycles (MARS 6810)
	Seminar in Hydrobiology (MARS 8130)
	Seminar in Hydrobiology (MARS 8130)
	Doctoral Research (MARS 9000)
Fall 2020	Biological and Chemical Oceanography (MARS 4200)
	Seminar in Hydrobiology (MARS 8130)
	Seminar in Hydrobiology (MARS 8130)
	Doctoral Research (MARS 9000)
Spring 2020	Seminar in Hydrobiology (MARS 8130)
Fall 2019	Seminar in Hydrobiology (MARS 8130)
	Seminar in Hydrobiology (MARS 8130)
	Synthesis Skills in Marine Sciences (MARS 8190)
	Synthesis Skills in Marine Sciences (MARS 8190)

**Professional Service**

Broadcast interviews

**WTOC News**, 08 Mar 2022

WTOC, UGA scientists conducting research in Hawaii, Interviewer: Franklin C,  
Interviewee: Ohnemus D

## Educational/Outreach presentations

### *International: Workshop*

**A Look at Lithogenic Material in the Oceans**, 28 Jul 2021

Iron at the Air-Sea Interface Workshop GEOTRACES International Program Office;  
SOLAS

Invited, Role: Presenter, Target audience: Faculty / Staff

### *Local: Guest lecture*

**GEOTRACES: How Mapping Ocean Chemistry Helps Us Learn about Our Changing Planet**, 13 Jun 2023

Evening at Skidaway

Role: Presenter, Target audience: General public

<https://www.youtube.com/watch?v=29GNwAcKvPA>

**A Look at Climate Mitigation Strategies**, 13 Apr 2021

Evening at Skidaway

Role: Presenter, Target audience: General public

**Understanding Climate Models – History, Forcings and the Future**, 09 Apr 2019

Evening At Skidaway

Role: Presenter, Target audience: General public

Number of participants: 100

### *University: Seminar*

**Exposing the Behaviors of Multiple Particulate Phases in the Oceans**, 28 Apr 2021

Stanford University, Stanford, United States

Role: Presenter, Target audience: Faculty / Staff

### *University: Guest lecture*

**Exposing Latent Scavenged Particulate Phases in the Ocean**, 11 Oct 2019

Invited Speaker

Role: Presenter, Target audience: College students

**Exposing Latent Scavenged Phases in the Ocean**, 31 Jan 2019

Old Dominion University, OEAS Dept. Seminar Series

Target audience: College students

## Event participation

### *International: Conference*

**Gordon Research Conference - Chemical Oceanography, 14 Jul 2019–19 Jul 2019**  
Holderness School, Holderness, NH, United States

*National: General meeting*

**Gulf of Mexico Research Vessel Planning Meeting, 13 Jan 2019–15 Jan 2019**  
Louisiana Universities Marine Consortium, Chauvin, United States  
Planning meeting for scientific proposal portion of Gulf of Mexico regional-class research vessel proposal

*Local: Campus-Wide Open House*

**Skidaway Marine Science Day, 13 Oct 2018**

Memberships: Committee

*National*

**UNOLS Council (Member), 01 Jan 2025–31 Dec 2027**  
University-National Oceanographic Laboratory System, UNOLS Council, Narragansett Pier, United States  
Elected to a three-year term on the UNOLS council in Winter 2024

**UNOLS Operator Institution Representative (UGA Skidaway) (Member), 09 Apr 2019–Present**  
University-National Oceanographic Laboratory System, Narragansett Pier, United States

*University*

**Ad Hoc Departmental Committee on Evaluation Procedures (Member), 01 Sep 2022–01 Oct 2022**

**Conservation Biologist Search Committee (Member), 31 Oct 2019–15 Mar 2020**

**Skidaway IT Committee (Member), 01 Oct 2019–Present**

**Graduate Affairs Committee, Marine Science Dept. (Member), 01 Sep 2019–Present**

Professional development

**Faculty Learning Community: Everything you wanted to know about teaching but were afraid to ask, 01 Sep 2020–23 Apr 2021**

Training program  
University of Georgia, Athens, United States

**Search Committee Training, 17 Jan 2020**

Training program  
Mary Carney, University of Georgia, Office of Faculty Affairs, Athens, United States

Recruitment

*National*

**Graduate Student Recruitment, Dept. of Marine Sciences (Students recruitment), 04 Feb 2022–05 Feb 2022**

Partial organizer and lead point of contact for SkIO

**Graduate Student Recruitment, Dept. of Marine Sciences (Students recruitment), 15 Jan 2021–06 Feb 2021**

Organizer and lead point of contact, SkIO

**Graduate Student Recruitment, Dept. of Marine Sciences (Students recruitment), 01 Jan 2020–15 Jan 2020**

Organizer and lead point of contact, SkIO

**Graduate Student Recruitment, Marine Sciences Dept (Students recruitment), 15 Jan 2019–04 Feb 2019**

Organizer and lead point of contact, SkIO

Reviewing/Refereeing: Grant proposals

*International*

**National Science Foundation, Arlington, United States, 17 Oct 2019**

**National Science Foundation, Arlington, United States, 23 Apr 2019**

**National Science Foundation, Arlington, United States, 27 Mar 2019**

**Israel Science Foundation, Jerusalem, Israel, 26 Mar 2019**

Mail reviewer for ISF proposal

*National*

**National Science Foundation, Chemical Oceanography Program, Alexandria, United States, 21 Oct 2024**

Number of applications reviewed/refereed: 1

External (mail) reviewer

**National Science Foundation, Office of Polar Program, Alexandria, United States, 18 Apr 2022**

Number of applications reviewed/refereed: 1

Reviewer

Reviewing/Refereeing: Journals

*International*

**Chemical Geology, 17 Dec 2024**

Number of works reviewed/refereed: 1

**Nature**, 01 Nov 2024

Number of works reviewed/refereed: 1

**Oceanography**, 08 Feb 2024

Number of works reviewed/refereed: 1

**Limnology and Oceanography: Methods**, 18 Aug 2023

Number of works reviewed/refereed: 1

**Progress in Oceanography**, 07 Jul 2023

Number of works reviewed/refereed: 1

**Frontiers in Marine Science**, 10 Apr 2023

Number of works reviewed/refereed: 1

**Nature Communications**, 03 Mar 2023

Number of works reviewed/refereed: 1

**Global Biogeochemical Cycles: an international journal of global change**, 24 Jan 2023

Number of works reviewed/refereed: 1

**Marine Pollution Bulletin**, 15 Aug 2022

Number of works reviewed/refereed: 1

**Limnology and Oceanography** (Anonymous peer review), 10 May 2022

Number of works reviewed/refereed: 1

**Biogeosciences**, 26 Apr 2022

Number of works reviewed/refereed: 1

**Proceedings of the National Academy of Sciences of USA** (Anonymous peer review), 21 Nov 2021

Number of works reviewed/refereed: 1

**Marine Chemistry**, 20 Dec 2019

**Marine Pollution Bulletin**, 24 Nov 2019

**Earth and Planetary Science Letters**, 19 Nov 2019

Number of works reviewed/refereed: 1

**Chemical Geology**, 23 Feb 2018

**New Phytologist**, 06 May 2022

Number of works reviewed/refereed: 1

**Earth-Science Reviews**, 06 May 2022

Number of works reviewed/refereed: 1