

CURRICULUM VITAE

BENJAMIN A. S. VAN MOOY

Senior Scientist and Department Chair

Woods Hole Oceanographic Institution

Department of Marine Chemistry and Geochemistry

Woods Hole, Massachusetts 02543

Telephone: 508-289-2322

Fax: 508-457-2164

Email: bvanmooy@whoi.edu

Web: www.whoi.edu/people/bvanmooy

EDUCATION:

B.A.: June, 1995. Chemistry and Geological Sciences (Honors). Northwestern University.

Advisors: David Hollander and Brad Sageman

Thesis: *Skeletal limestones of the Cretaceous Western Interior Seaway.*

M.S.: June, 2000. Chemical Oceanography. University of Washington.

Advisor: Richard G. Keil.

Thesis: *Impact of suboxia on the degradation of amino acids in sinking POC.*

Ph.D.: December, 2003. Chemical Oceanography. University of Washington.

Advisor: Allan H. Devol.

Thesis: *Carbon and phosphorus cycling by phylogenetically defined-groups of bacteria in the North Pacific Ocean.*

PROFESSIONAL EXPERIENCE:

Woods Hole Oceanographic Institution, Department of Marine Chemistry and Geochemistry

Department Chair, 2021-present

Senior Scientist, 2016-present

Associate Scientist, 2008-2016

Assistant Scientist, 2004-2008

Postdoctoral Scholar, 2003-2004

University of Washington, School of Oceanography

Research Assistant, 1998 – 2003.

Northwestern University, Department of Geological Sciences

Research Technician, 1996-1998.

Carnegie Institution of Washington, Geophysical Laboratory

REU Scholar, 1995.

Northwestern University, Department of Geological Sciences

Laboratory Assistant, 1993-1995.

AWARDS AND RECOGNITION:

G. Evelyn Hutchinson Award, Association for the Sciences of Limnology and Oceanography,
2022

SCOPE Investigator, Simons Foundation, 2015-present.

Kavli Frontiers of Science Fellow, Kavli Foundation, 2013

Diamond Jubilee International Visiting Fellowship, Southampton University, 2013-2017.

Postdoctoral Award at Woods Hole Oceanographic Institution. Supported postdoctoral position.
Advisors: D. Repeta and K. Edwards, 2003.

National Estuarine Research Reserve Graduate Assistantship (NOAA). Funding for research of organic matter cycling in the sediments of Padilla Bay, Washington, 2000.

NSF Graduate Research Award. Honorable mention for proposal to study organic matter cycling on continental margins, 1998.

Egvedt Scholarship. Awarded to incoming graduate student at the School of Oceanography of high academic potential, 1998.

NSF REU Scholarship. Supported summer research at the Geophysical Laboratory, Carnegie Institution of Washington, 1998.

Schlanger Undergraduate Earth Sciences Award. Recognizes superior scholarship in the Department of Geological Sciences, Northwestern University, 1995.

Charles Hurd Scholarship for undergraduate research. Competitive grant for undergraduate research at Northwestern University, 1993.

PROFESSIONAL AFFILIATIONS:

Member, American Association for the Advancement of Science, 2021-present

Member, American Chemical Society, 2016-present.

Member, American Geophysical Union, 1997-present.

Member, American Society for Limnology and Oceanography, 1997-present.

Member, Geochemical Society, 2012-2017; 2022-present

Member, American Society for Mass Spectrometry, 2015-2016.

PROFESSIONAL ACTIVITIES:

WHOI (Non Education Related)

Committees:

Radiation Safety Committee. 2007-2023 (Chair 2015 to 2023)

Marine Operations Committee, 2019-2022.

Scientific Staff Executive Committee. 2014-2017 (Chair 2016 to 2017).

Search Committee for WHOI Marine Chemistry and Geochemistry Department. 2004, 2006, 2010, 2015, 2018.

Search Committee for NOSAMS Director. 2021

Search Committee for Director of Office of Technology Transfer. 2013.

Search Committee for WHOI Vice President for Academic Programs and Dean. 2004-2005.

FT-MS Facility Advisory Committee. 2008 - 2012.

Office of Applied Oceanography Advisory Committee. 2009 - 2014.

Development Office "Useful Chemicals" Advisory Committee. 2008 - 2014.

Outside WHOI

Associate Editor:

Limnology and Oceanography 2016-2021.

Geochimica et Cosmochimica Acta. 2012-2017.

Frontiers in Aquatic Microbiology. 2012-2016.

National Committees:

Post-Cruise Assessment Report Committee. UNOLS. 2015-2021.
Scientific Steering Committee. OCB. 2015-2018.

National Panels:

Rolling Deck to Repository Advisory Panel. 2016-2018
NSF EFRI Multicellular and Inter-Kingdom Signaling Review Panel. 2011.
DoD Defense University Research Instrumentation Program. 2009.
NSF Chemical Oceanography Review Panel. 2007, 2009, 2019.

Proposal Reviewer:

NSF Chemical Oceanography, NSF Biological Oceanography, NSF OTIC, NSF Molecular Cell Biology, NSF Engineering, DoD DURIP, NOAA Sea Grant, ACS Petroleum Research Fund, Institut français de la Biodiversité, UK National Environment Research Council, US-Israel Binational Science Foundation, Croatian Science Foundation, Netherlands Organisation for Scientific Research.

Invited Workshops:

Schmidt Futures Ocean Biogeochemistry Workshop, 2022
NSF 'Omics-enabled Advances in Understanding Antarctic Life Workshop, 2022
NASA/NSF Alternative Chemistries Workshop, 2012
SOST DWH Workshop, 2011
OCB Scoping Workshop. A biogeochemical flux program aligned with OOI. 2011.
OCB Scoping Workshop (Planning committee). Molecular biology of biogeochemistry. 2010.
IMBER IMBIZO Meeting on Ecological Stoichiometry (Planning committee). 2010.
WHOI Dark energy: the deep oceanic biosphere. 2004.

Invited Investigator:

Centre d'Océanologie de Marseille. 2006
Photosynthesis Laboratory, Czech Academy of Sciences, 2005.

Session leader:

Convergent approaches to elucidating viral impacts on the oceanic carbon cycle. Ocean Sciences Meeting, Virtual, 2022
Geochemistry and geobiology of phosphorus. Goldschmidt Conference. Paris, France, 2017
Infochemical Signaling. ASLO Meeting. Granada, Spain, 2015.
Towards a definition of ocean biogeochemical provinces. GRC-Chemical Oceanography, Biddeford, ME, 2013.
Biogeochemistry of P-limited marine environments. Ocean Sciences Meeting. Portland, OR, 2010.
Biogeochemistry of planktonic phosphorus cycling: Genes to geochemical cycles. Ocean Sciences Meeting. Honolulu, Hawaii, 2006.
Upper ocean plankton dynamics. Ocean Sciences Meeting. Portland, Oregon, 2004.

Cruise- and project-related meetings:

GBMF-MMI Microscale Degradation Project., Woods Hole, 2018.
GBMF-MMI Infochemical Signaling Project, Woods Hole, 2011, 2013, 2015.
Pre-cruise Meeting. OUTPACE. Virtual attendee. Marseilles, France, 2014.
Pre-cruise Meeting. NA-VICE cruise. Rutgers University, 2012.
Pre-cruise Meeting. BOUM. Virtual attendee. Marseilles, France, 2007.
Post-cruise Meeting. BIOSOPE. Villefranche-sur-mer, France. 2005

Journal Reviewer:

Applied and Environmental Microbiology, Aquatic Biology, Aquatic Microbial Ecology, Deep-Sea Research I & II, Environmental Microbiology, Frontiers in Aquatic Microbiology, Frontiers in Marine Science, Geochimica et Cosmochimica Acta, ISME Journal, Limnology and Oceanography, Limnology and Oceanography Methods, Marine Drugs, Marine Ecology Progress Series, Proceedings of the National Academy of Science, Nature, Nature Geoscience, Organic Geochemistry, Science.

PARTICIPATION IN EDUCATION:

Teaching:

Instructor. MIT 12.742, Marine Chemistry (12 units). 2011.
Co-Instructor. MIT 12.742, Marine Chemistry (12 units). With E. Kujawinski and A. Babbin 2020.
Co-Instructor. MIT 12.742, Marine Chemistry (12 units). With E. Kujawinski 2017-2019.
Co-Instructor. MIT 12.742, Marine Chemistry (12 units). With S. Doney. 2007-2010, 2012-2015.
Co-Instructor. MIT 12.759, Marine Chemistry Seminar (6 units). With D. Repeta. 2006.
Instructor. Short-course on oceanography for BP scientists. 2011 & 2012.
Organizer. Marine Chemistry and Geochemistry Seminar Series. 2009.
Guest Lecturer, Introduction to Marine Geochemistry, University of Southampton. 2013, 2014
Guest lecturer, Marine Organic Geochemistry, MIT/WHOI Joint Program. 2005, 2007, 2013.
Guest lecturer, Phytoplankton Seminar, MIT/WHOI Joint Program. 2007.

Advising:

MIT/WHOI Joint Program Students

Zephyr Girard, 2023-present
Daniel Lowenstein, 2021-present
Shavonn Bent, 2019-present
Henry Holm. 2018-present
Marc Foster, 2021-2022
Max Jahns, 2019-2021
James Collins. 2011-2017.
Bethanie Edwards. 2010-2016.
Kimberly Pependorf. 2007-2012.
Laura Hmelo. 2005-2010.

WHOI Postdoctoral Scholars

Kevin Becker. 2015-2019.
Patrick Martin. 2011-2013.

Suni Shah. 2010-2014.

Timothy Shanahan. 2006-2008.

WHOI Postdoctoral Investigators

Jon Hunter. 2016-2018

Alina Ebling. 2017-2019

Andreas Krupke. 2014-2015.

James Fulton. 2011-2013.

WHOI Summer Student Fellows and Guest Students

Sarah Roberts (Smith), 2023

Hannah Goldberg (Amherst), 2022

Lisa Coe (Pittsburgh), 2019

Gabriel Liguori (Yale), 2015.

Laura Sofen (Carleton), 2010.

Lauren Yum (KAUST), 2009.

Rose Kantor (Carleton), 2009.

Nick Ward (Washington) 2007

Kim Pependorf (Caltech), 2006

Host to WHOI Guest Investigators

Nora-Charlotte Pauli, 2023.

Jozef Nissimov, 2014.

Assaf Vardi, 2008.

Host for Southampton/WHOI Exchange Student

Jon Hunter, 2013.

Patrick Martin, 2009.

Host for Czech Microbiology Laboratory Graduate Students

Eva Žišková. 2010.

Jan Pilný, 2010.

Ph.D. Committee Member,

Marianne Acker, MIT/WHOI. 2018-2021.

Noelle Held, MIT/WHOI. 2016-2019.

Winn Johnson, MIT/WHOI. 2014-2017.

Patricia Tcaciuc, MIT/WHOI. Defense Chair. 2015

Erin Bertrand, MIT/WHOI. 2009-2011.

Jesse Kneeland, MIT/WHOI 2009-2011.

Hunter Oates, MIT/WHOI. 2007-2008.

Jennifer Culbertson. Boston University. 2005-2007.

Peter Smyntek. SUNY ESF. Examiner. 2007.

High School Science Fair Students

Oliver Newman, Regional Finalist, 2010-2011.

Pippa Ryan, Commonwealth Finalist, 2009-2010.

MIT/WHOI Joint Program Class Advisor. 2005, 2015.

NON-EDUCATION SUPERVISION AT WHOI:

Current:

Helen Fredricks, Research Specialist. 2004-present.

Noa Shevchuk, Part-time Laboratory Assistant II. 2022-present
Christina Rorres, Part-time Laboratory Assistant II. 2023-present

Past:

Mackenzie Curtice, Research Assistant II. 2022-2023.
Justin Ossolinski, Senior Research Assistant. 2007-2017; 2020-2022
Daniel Lowenstein, Research Assistant II. 2018-2021.
Kelsey Perry, Part-time Laboratory Assistant II. 2017-2020.
Marissa Small, Part-time Laboratory Assistant II. 2018-2019
Fiona Hopewell, Part-time Laboratory Assistant I. 2015-2017.
Henry Holm, Research Assistant I, 2017-2018.
Jenn Linton, Casual Research Assistant. 2016.
Jeremy Tagliaferre, Research Assistant I, 2013-2014.
Krista Longnecker, Research Associate III. 2009-2011.
Byron Pedler, Research Assistant II. 2006-2007
Katie Barott, Research Assistant II. 2006-2007
Oliver Newman. Part-time helper, 2012, 2014.
Olivia Kurz. Part-time helper. 2006.
Pia Hugus. Part-time helper. 2004.
Suzanne Crabtree. Volunteer. 2005.

CRUISE PARTICIPATION (* Chief Scientist):

*Oregon Coast, North Pacific, 2023, R/V *Sally Ride*
West Antarctic Peninsula, 2023, *Palmer Station*
*Buzzards Bay, North Atlantic. 2022. R/V *Tioga*.
*Gulf of Maine, 2021, R/V *Endeavor*
*West Antarctic Peninsula, 2018, R/V *Laurence M. Gould*
*West Antarctic Peninsula, 2017, R/V *Laurence M. Gould* and *Palmer Station*
*Western North Atlantic, 2017, R/V *Neil Armstrong*
North Pacific subtropical gyre, 2016, R/V *Kilo Moana*
Clayoquot Sound, 2014, R/V *Clifford Barnes*
* Western tropical North Atlantic, 2014, R/V *Atlantic Explorer*
Great Salt Lake, 2013, R/V *Bonneville*
Western North and South Atlantic, 2013 R/V *Knorr*
* Western North Atlantic, 2012, R/V *Knorr*.
* Sargasso Sea, North Atlantic, 2011. R/V *Atlantic Explorer*.
*North Pacific subtropical gyre, 2010. R/V *Kilo Moana*.
Gulf of Mexico, 2010. R/V *Endeavor*.
*Clayoquot Sound, North Pacific, 2009. R/V *Clifford Barnes*.
Atlantis Deep, Red Sea. 2008. R/V *Oceanus*.
*Nova Scotia to Bermuda, North Atlantic. 2008. R/V *Oceanus*.
Bermuda to Puerto Rico, North Atlantic. 2007. R/V *Atlantic Explorer*.
Sargasso Sea, North Atlantic. 2007. R/V *Atlantic Explorer*.
* Vineyard Sound, North Atlantic. 2005. R/V *Tioga*.
Easter Island to Concepcion, Chile; South Pacific. 2004. R/V *L'Atalante*
Hawaiian Ocean Time-Series cruise #161; North Pacific. 2004. R/V *Kilo Moana*.

Hawaiian Ocean Time-Series cruise #157; North Pacific. 2004. R/V *Kaimikai-o-Kanaloa*
Hawaiian Ocean Time-Series cruise #150; North Pacific. 2003. R/V *Kaimikai-o-Kanaloa*
Hawaiian Ocean Time-Series cruise #140; North Pacific. 2002. R/V *Kaimikai-o-Kanaloa*
Orca Basin; Gulf of Mexico. 2002. R/V *Suncoaster*.
* Carr Inlet, Puget Sound Washington, 2002. R/V *Clifford Barnes*.
Washington coast; North Pacific. 2001. R/V *Thomas Thompson*.
*Saanich Inlet, B.C.; Strait of Georgia. 2001. R/V *Clifford Barnes*.
*Saanich Inlet, B.C.; Strait of Georgia . 2000. R/V *Clifford Barnes*.
*Carr Inlet, Washington; Puget Sound. 2000. R/V *Clifford Barnes*.
Eastern tropical North Pacific; 2000. R/V *New Horizon*.
Lake Michigan. 1996. R/V *Neeskay*
Orca Basin; Gulf of Mexico. 1997. R/V *Longhorn*.
Lake Michigan. 1996. R/V *Neeskay*
Sargasso Sea; North Atlantic. 1995. R/V *Cape Hatteras*

PAPERS IN REFEREED JOURNALS (*Member of Van Mooy Lab Group; †Guest Investigator or Engineer in the Van Mooy Lab)

100. *Holm, H.C., *Fredricks, H.F., *Bent, S.M., *Lowenstein, D.P., *Ossolinski, J.E., *Becker, K.W., Johnson, W.M., *Schrage, K., Van Mooy, B.A.S., 2022. Global ocean lipidomes show a universal relationship between temperature and lipid unsaturation. *Science* 376, 1487-1491.
99. Muratore, D., Boysen, A.K., Harke, M.J., *Becker, K.W., Casey, J.R., Coesel, S.N., Mende, D.R., Wilson, S.T., Aylward, F.O., Eppley, J.M., Vislova, A., Peng, S.Y., Rodriguez-Gonzalez, R.A., Beckett, S.J., Armbrust, E.V., DeLong, E.F., Karl, D.M., White, A.E., Zehr, J.P., Van Mooy, B.A.S., Dyrman, S.T., Ingalls, A.E., Weitz, J.S., 2022. Complex marine microbial communities partition metabolism of scarce resources over the diel cycle. *Nature Ecol. Evol.* 6, 218
98. Biller, S.J., Lundeen, R.A., Hmelo, L.R., *Becker, K.W., Arellano, A.A., Dooley, K., Heal, K.R., Carlson, L.T., Van Mooy, B.A.S., Ingalls, A.E., Chisholm, S.W., 2022. Prochlorococcus extracellular vesicles: molecular composition and adsorption to diverse microbes. *Environ. Microbiol.* 24, 420-435.
97. Diaz, B.P., Knowles, B., Johns, C.T., Laber, C.P., Bondoc, K.G.V., Haramaty, L., Natale, F., Harvey, E.L., Kramer, S.J., Bolaños, L.M., *Lowenstein, D.P., *Fredricks, H.F., Graff, J., Westberry, T.K., Mojica, K.D.A., Haëntjens, N., Baetge, N., Gaube, P., Boss, E., Carlson, C.A., Behrenfeld, M.J., Van Mooy, B.A.S., Bidle, K.D., 2021. Seasonal mixed layer depth shapes phytoplankton physiology, viral production, and accumulation in the North Atlantic. *Nature Comm.* 12, 6634.
96. Hawco, N.J., Barone, B., Church, M.J., Babcock-Adams, L., Repeta, D.J., Wear, E.K., Foreman, R.K., Björkman, K.M., *Bent, S., *Van Mooy, B.A.S., Sheyn, U., DeLong, E.F., Acker, M., Kelly, R.L., Nelson, A., Ranieri, J., Clemente, T.M., Karl, D.M., John, S.G., 2021. Iron Depletion in the Deep Chlorophyll Maximum: Mesoscale Eddies as Natural Iron Fertilization Experiments. *Global Biogeochem. Cycles* 35, e2021GB007112.

95. *Hunter, J.E., *Fredricks, H.F., Behrendt, L., Alcolombri, U., *Bent, S.M., Stocker, R., Van Mooy, B.A.S., 2021. Using High-Sensitivity Lipidomics To Assess Microscale Heterogeneity in Oceanic Sinking Particles and Single Phytoplankton Cells. *Environ. Sci. Technol.* 55, 15456-15465.
94. *Lowenstein, D.P., †Mayers, K., *Fredricks, H.F., *Van Mooy, B.A.S., 2021. Targeted and untargeted lipidomic analysis of haptophyte cultures reveals novel and divergent nutrient-stress adaptations. *Org. Geochem.* 161, 104315.
93. Siegel, D.A., Cetinić, I., Graff, J.R., Lee, C.M., Nelson, N., Perry, M.J., Ramos, I.S., Steinberg, D.K., Buesseler, K., Hamme, R., Fassbender, A.J., Nicholson, D., Omand, M.M., Robert, M., Thompson, A., Amaral, V., Behrenfeld, M., Benitez-Nelson, C., Bisson, K., Boss, E., Boyd, P.W., Brzezinski, M., Buck, K., Burd, A., Burns, S., Caprara, S., Carlson, C., Cassar, N., Close, H., D'Asaro, E., Durkin, C., Erickson, Z., Estapa, M.L., Fields, E., Fox, J., Freeman, S., Gifford, S., Gong, W., Gray, D., Guidi, L., Haëntjens, N., Halsey, K., Huot, Y., Hansell, D., Jenkins, B., Karp-Boss, L., Kramer, S., Lam, P., Lee, J.-M., Maas, A., Marchal, O., Marchetti, A., McDonnell, A., McNair, H., Menden-Deuer, S., Morison, F., Niebergall, A.K., Passow, U., Popp, B., Potvin, G., Resplandy, L., Roca-Martí, M., Roesler, C., Rynearson, T., Traylor, S., Santoro, A., Seraphin, K.D., Sosik, H.M., Stamieszkin, K., Stephens, B., Tang, W., Van Mooy, B., Xiong, Y., Zhang, X., 2021. An operational overview of the EXport Processes in the Ocean from RemoTe Sensing (EXPORTS) Northeast Pacific field deployment. *Elementa: Science of the Anthropocene* 9.
92. Bowman, J.S., Van Mooy, B.A., *Lowenstein, D.P., *Fredricks, H.F., Hansel, C.M., Gast, R., *Collins, J.R., Couto, N., Ducklow, H.W., 2021. Whole Community Metatranscriptomes and Lipidomes Reveal Diverse Responses Among Antarctic Phytoplankton to Changing Ice Conditions. *Front. Mar. Sci.* 8, 119.
91. Gosselin, K.M., Nelson, R.K., Spivak, A.C., Sylva, S.P., Van Mooy, B.A., Aeppli, C., Sharpless, C.M., O'Neil, G.W., Arrington, E.C., Reddy, C.M., 2021. Production of Two Highly Abundant 2-Methyl-Branched Fatty Acids by Blooms of the Globally Significant Marine Cyanobacteria *Trichodesmium erythraeum*. *ACS Omega*.
90. Love, C.R., Arrington, E.C., Gosselin, K.M., Reddy, C.M., Van Mooy, B.A., Nelson, R.K., Valentine, D.L., 2021. Microbial production and consumption of hydrocarbons in the global ocean. *Nat. Microbiol.*, 1-10.
89. *Becker, K.W., Harke, M.J., Mende, D.R., Muratore, D., Weitz, J.S., DeLong, E.F., Dyhrman, S.T., Van Mooy, B.A., 2021. Combined pigment and metatranscriptomic analysis reveals highly synchronized diel patterns of phenotypic light response across domains in the open oligotrophic ocean. *ISME J.* 15, 520-533.
88. Glabonjat, R.A., Raber, G., *Holm, H.C., Van Mooy, B.A., Francesconi, K.A., 2021. Arsenolipids in Plankton from High-and Low-Nutrient Oceanic Waters Along a Transect in the North Atlantic. *Environ. Sci. Technol.* 55: 5515-5524.
87. Kharbush, J.J., Close, H.G., Van Mooy, B.A.S., Arnosti, C., Smittenburg, R.H., Le Moigne, F.A.C., Mollenhauer, G., Scholz-Böttcher, B., Obreht, I., Koch, B.P., Becker, K., Iversen, M.H., Mohr, W. 2020. Particulate organic carbon deconstructed: Molecular

- and chemical composition of particulate organic carbon in the ocean. *Front. Mar. Sci.* 7: 518.
86. Johnson, M.D., *Edwards, B.R., Beaudoin, D.J., Van Mooy, B.A.S. and Vardi, A. 2020, Nitric oxide mediates oxylipin production and grazing defense in diatoms. *Environ Microbiol*, 22: 629-645.
 85. *Popendorf, K.J, Koblížek, M., and Van Mooy, B.A.S. 2020. Phospholipid turnover rates suggest that bacterial community growth rates in the open ocean are systematically underestimated. *Limnol. Oceanogr.* 65: 1876-1890.
 84. Miller, C.A., *Holm, H.C., Hortsman, L., George, J.C., *Fredricks, H.F., Van Mooy, B.A.S., Apprill, A. 2020. Coordinate transformation of the gut microbiome and lipidome of bowhead whale provides novel insights into digestion. *ISME J.* 14(3): 688-701
 83. Johnson, W.M., Longnecker, K., Kido Soule, M.C., Arnold, W.A., Bhatia, M.P., Hallam, S.J., Van Mooy, B.A., Kujawinski, E.B., 2020. Metabolite composition of sinking particles differs from surface suspended particles across a latitudinal transect in the South Atlantic. *Limnol. Oceanogr.* 65:111-127.
 82. Kranzler, C.F., Krause, J.W., Brzezinski, M.A., *Edwards, B.R., Biggs, W.P., Maniscalco, M., McCrow, J.P., *Van Mooy, B.A.S., Bidle, K.D., Allen, A.E., Thamatrakoln, K., 2019. Silicon limitation facilitates virus infection and mortality of marine diatoms. *Nat. Microbiol.* 4: 1790-1797.
 81. Mackey, K.R.M., Van Mooy, B.A.S., Cade-Menun, B.J., Paytan, A., 2019. Phosphorus dynamics in the environment., in: Schmidt, T. (Ed.), *Encyclopedia of Microbiology*, 4th ed.
 80. †Nissimov, J.I., Talmy, D., Haramaty, L., *Fredricks, H.F., Zelzion, E., Knowles, B., Eren, A.M., Vandzura, R., Laber, C.P., Schieler, B.M., Johns, C.T., More, K.D., Coolen, M.J.L., Follows, M.J., Bhattacharya, D., Van Mooy, B.A.S., Bidle, K.D., 2019. Biochemical diversity of glycosphingolipid biosynthesis as a driver of Coccolithovirus competitive ecology. *Environ. Microbiol.* 21, 2182-2197.
 79. Van Mooy, B.A.S., 2019. Synthesis of high molar activity ³³P-labeled phosphorous acid. *J. Radioanal. Nucl. Chem.* 320, 885-888.
 78. Johns, C.T., Grubb, A., †Nissimov, J.I., Natale, F., Knapp, V., Mui, A., *Fredricks, H., Van Mooy, B.A.S., Bidle, K.D., 2019. The mutual interplay between calcification and coccolithovirus infection. *Environ. Microbiol.* 21, 1896-1915.
 77. Farnelid, H., Turk-Kubo, K., Ploug, H., *Ossolinski, J.E., *Collins, J.R., Van Mooy, B.A.S., Zehr, J.P., 2019. Diverse diazotrophs are present on sinking particles in the North Pacific Subtropical Gyre. *ISME J.* 13, 170-182.
 76. Schieler, B.M., Soni, M.V., Brown, C.M., Coolen, M.J.L., *Fredricks, H.F., Van Mooy, B.A.S., Hirsh, D.J., Bidle, K.D., 2019. Nitric oxide production and antioxidant function during viral infection of the coccolithophore *Emiliana huxleyi*. *ISME J* 13, 1019-1031.

75. *Becker, K.W., *Collins, J.R., Durham, B.P., Groussman, R.D., White, A.E., *Fredricks, H.F., *Ossolinski, J.E., Repeta, D.J., Carini, P., Armbrust, E.V., Van Mooy, B.A.S., 2018. Daily changes in phytoplankton lipidomes reveal mechanisms of energy storage in the open ocean. *Nat. Comm.* 9, 5179.
74. Frischkorn, K. R., Rouco, M., Van Mooy, B. A.S., & Dyhrman, S. T. 2018. The Trichodesmium microbiome can modulate host N₂ fixation. *Limnol. Oceanogr. Lett.*, 3(6), 401-408.
73. Frischkorn, K.R., *Krupke, A., Rouco, M., Salazar Estrada, A.E., Van Mooy, B.A.S., Dyhrman, S.T., 2018. Trichodesmium physiological ecology and phosphate reduction in the western Tropical South Pacific. *Biogeosci.* 15, 5761-5788..
72. Bundy, R.M., Boiteau, R.M., McLean, C., Turk-Kubo, K.A., McIlvin, M.R., Saito, M.A., Van Mooy, B.A.S., Repeta, D.J., 2018. Distinct Siderophores Contribute to Iron Cycling in the Mesopelagic at Station ALOHA. *Front. Mar. Sci.*
71. *Collins, J.R., *Fredricks, H.F., Bowman, J.S., Ward, C.P., Moreno, C., Longnecker, K., Marchetti, A., Hansel, C.M., Ducklow, H.W., Van Mooy, B.A.S., 2018. The molecular products and biogeochemical significance of lipid photooxidation in West Antarctic surface waters. *Geochim. Cosmochim. Acta* 232, 244-264.
70. *Collins, J.R., †Fucile, P.D., †McDonald, G., *Ossolinski, J.E., Keil, R.G., †Valdes, J.R., Doney, S.C., Van Mooy, B.A.S. 2018. An autonomous, in situ light-dark bottle device for determining community respiration and net community production. *Limnol. Oceanogr. Meth.* 16, 323-338.
69. Glabonjat, R., †Raber, G., Van Mooy, B.A.S., Francesconi, K.A., 2018. Arsenobetaine in seawater: Depth profiles from selected sites in the North Atlantic. *Environ. Sci. Tech.* 52, 522-530.
68. Laber, C.P., *Hunter, J.E., Carvalho, F., *Collins, J.R., Hunter, E.J., Schieler, B.M., Boss, E., More, K., Frada, M., Thamatrakoln, K., Brown, C.M., Haramaty, L., *Ossolinski, J., Fredricks, H., Nissimov, J.I., Vandzura, R., Sheyn, U., Lehahn, Y., Chant, R.J., Martins, A.M., Coolen, M.J.L., Vardi, A., DiTullio, G.R., Van Mooy, B.A.S., Bidle, K.D., 2018. Coccolithovirus facilitation of carbon export in the North Atlantic. *Nat. Microbiol.* 3, 537-547.
67. Frischkorn, K.R., Rouco, M., Van Mooy, B.A.S., Dyhrman, S.T., 2017. Epibionts dominate metabolic functional potential of Trichodesmium colonies from the oligotrophic ocean. *ISME J* 11, 2090-2101.
66. *Fulton JM, *Fredricks HF, Van Mooy BAS., 2017. Intact polar lipid export in the temperate western North Atlantic and Sargasso Sea. *Organic Geochemistry* 114:45-56.
65. *Fulton JM, Kendrick BJ, DiTullio GR, Van Mooy BAS., 2017. Alkenone unsaturation during virus infection of *Emiliana huxleyi*. 111:82-85.

64. Johnson, Z.I., Bidigare, R.R., Blinebry, S.K., Brown, S.L., Cullen, J.J., Loftus, S., Redalje, D.G., Swink, C., Van Mooy, B.A.S., 2017. Quantification of neutral lipids from marine phytoplankton using Nile Red, *In: Consequences of Microbial Interactions with Hydrocarbons, Oils, and Lipids: Production of Fuels and Chemicals* Springer.
63. *Collins, J.R., *Edwards, B.R., *Fredricks, H.F., and Van Mooy, B.A.S. 2016. LOBSTAHS: An adduct-based lipidomics strategy for discovery and identification of oxidative stress biomarkers. *Anal. Chem.* 88: 7154-7162.
62. Hansel, C.M., Buchwald, C., Diaz, J., *Ossolinski, J.E., Dyhrman, S.T., Van Mooy, B.A.S., †Polyviou, D., 2016. Dynamics of extracellular superoxide production by *Trichodesmium* colonies from the Sargasso Sea. *Limnol. Oceanogr.* 61, 1188-1200.
61. Durkin, C.A., Van Mooy, B.A.S., Dyhrman, S.T., Buesseler, K.O., 2016. Sinking phytoplankton associated with carbon flux in the Atlantic Ocean. *Limnol. Oceanogr.* 61, 1172-1187.
60. *Krupke, A., *Ossolinski, J.E., Hmelo, L., Mincer, T.J., Van Mooy, B.A.S., 2016. Quorum sensing plays a complex role in regulating the enzyme hydrolysis activity of microbes associated with sinking particles in the ocean. *Front. Mar. Sci.* 3. doi: 10.3389/fmars.2016.00055.
59. Shemi, A., Schatz, D., *Fredricks, H.F., Van Mooy, B.A.S., Porat, Z., Vardi, A., 2016. Phosphorus starvation induces membrane remodeling and recycling in *Emiliana huxleyi*. *New Phytol.*, 211: 886-898.
58. Sebastian, M., Smith, A.F., Gonzalez, J.M., *Fredricks, H.F., Van Mooy, B.A.S., Koblizek, M., Brandsma, J., Koster, G., Mestre, M., Mostajir, B., Pitta, P., Postle, A.D., Sanchez, P., Gasol, J.M., Scanlan, D.J., Chen, Y., 2016. Lipid remodelling is a widespread strategy in marine heterotrophic bacteria upon phosphorus deficiency *ISME J.* 10, 968-978.
57. †Hunter, J. E., Frada, M. J., *Fredricks, H. F., Vardi, A., & Van Mooy, B.A.S. 2015. Targeted and untargeted lipidomics of *Emiliana huxleyi* viral infection and life cycle phases highlights molecular biomarkers of infection, susceptibility, and ploidy. *Front. Mar. Sci.* 2. doi: 10.3389/fmars.2015.00081
56. *Collins, J.R., *Edwards, B.R., Thamatrakoln, K., *Ossolinski, J.E., DiTullio, G.R., Bidle, K.D., Doney, S.C., Van Mooy, B.A.S., 2015. The multiple fates of sinking particles in the North Atlantic Ocean. *Global. Biochem. Cycles.* doi: 10.1002/2014GB005037
55. Carini, P., Van Mooy, B.A.S., Thrash, J.C., White, A., Zhao, Y., Campbell, E.O., *Fredricks, H.F., Giovannoni, S.J., 2015. SAR11 lipid renovation in response to phosphate starvation. *Proc Natl Acad Sci USA* 112, 7767-7772.
54. Mougnot, C., Zimmerman, A.E., Bonachela, J.A., *Fredricks, H., Allison, S.D., Van Mooy, B.A.S., Martiny, A.C., 2015. Resource allocation by the marine cyanobacterium *Synechococcus* WH8102 in response to different nutrient supply ratios. *Limnol. Oceanogr.* 60, 1634-1641.

53. *Edwards, B.R., Bidle, K.D., Van Mooy, B.A.S., 2015. Dose dependent regulation of microbial activity on sinking particles by polyunsaturated aldehydes: Implications for the carbon cycle. *Proc. Natl. Acad. Sci. USA* 112, 5909-5914.
52. Van Mooy, B.A.S., *Krupke, A., Dyhrman, S.T., *Fredricks, H.F., Frischkorn, K.R., *Ossolinski, J.E., Repeta, D.J., Rouco-Molina, M., Seewald, J.S., Sylva, S.P., 2015. Major role of planktonic phosphate reduction in the marine phosphorus redox cycle. *Science* 348, 783-785.
51. Durham, B.P., Sharma, S., Luo, H., Smith, C.B., Amin, S.A., Bender, S.J., Dearth, S.P., Van Mooy, B.A.S., Campagna, S.R., Kujawinski, E.B., Armbrust, E.V., Moran, M.A., 2015. Cryptic Carbon and Sulfur Cycling Between Surface Ocean Plankton. *Proc. Natl. Acad. Sci. USA* 112, 453-457.
50. Levitan, O., Dinamarca, J., Zelzion, E., Lun, D.S., Guerra, L.T., Kim, M.K., Kim, J., Van Mooy, B.A.S., Bhattacharya, D., Falkowski, P.G., 2015. Remodeling of intermediate metabolism in the diatom *Phaeodactylum tricornutum* under nitrogen stress. *Proc. Natl. Acad. Sci. USA* 112, 412-417.
49. Kendrick, B.J., DiTullio, G.R., Cyronak, T.J., *Fulton, J.M., Van Mooy, B.A.S., Bidle, K.D., 2014. Temperature-induced viral resistance in *Emiliana huxleyi* (Prymnesiophyceae). *PLoS ONE* 9, e112134.
48. Honjo, S., Eglinton, T.I., Taylor, C.D., Ulmer, K.M., Sievert, S.M., Bracher, A., German, C.R., Edgcomb, V., Francois, R., Iglesias-Rodriguez, M.D., Van Mooy, B.A.S., Repeta, D.J., 2014. Understanding the Role of the Biological Pump in the Global Carbon Cycle: An Imperative for Ocean Science. *Oceanography* 27, 10-16.
47. Lehahn, Y., Koren, I., Schatz, D., Frada, M., Sheyn, U., Boss, E., Efrati, S., Rudich, Y., Trainic, M., Sharoni, S., Laber, C., DiTullio, G.R., Coolen, M.J.L., Martins, A.M., Van Mooy, B.A.S., Bidle, K.D., Vardi, A., 2014. Decoupling of physical from biological processes to assess the impact of viruses on a mesoscale algal bloom. *Curr. Biol.* 24, 1-6.
46. Ray, J.L., Haramaty, L., Thyrhaug, R., *Fredricks, H.F., Van Mooy, B.A.S., Bidle, K.D., Larsen, A., Sandaa, R.-A., 2014. Virus infection of *Haptolina ericina* and *Phaeocystis pouchetii* implicates evolutionary conservation of programmed cell death induction in marine haptophyte-virus interactions. *J. Plankton Res.* 36, 943-955.
45. †Bellinger, B.J., Van Mooy, B.A.S., Cotner, J.B., *Fredricks, H.F., Benitez-Nelson, C.R., Thompson, J., Cotter, A., Knuth, M., Godwin, C.M., 2014. Physiological modifications by seston in response to physicochemical gradients within Lake Superior. *Limnol Oceanogr.* 59: 1011-1026.
44. *Martin, P., Dyhrman, S.T., Lomas, M.W., Poulton, N., Van Mooy, B.A.S., 2014. Accumulation and enhanced cycling of polyphosphate by Sargasso Sea plankton in response to low phosphorus. *Proc Natl Acad Sci USA*. 111: 8089-8094.
43. *Fulton, J.M., *Fredricks, H.F., Bidle, K.D., Vardi, A., Kendrick, B.J., DiTullio, G.R., Van Mooy, B.A.S., 2014. Novel molecular determinants of viral susceptibility and resistance in the lipidome of *Emiliana huxleyi*. *Environ. Microbiol.* 16: 1137-1149.

42. Rose, S.L., *Fulton, J.M., Brown, C.M., Natale, F., Van Mooy, B.A.S., Bidle, K.D. 2014. Isolation and characterization of lipid rafts in *Emiliana huxleyi*: a role for membrane microdomains in host-virus interactions. *Environ. Microbiol.* 16: 1150-1166.
41. Van Mooy B.A.S., *Hmelo L.R., *Fredricks H.F., *Ossolinski J.E., *Pedler B.E., Bogorff D.J., Smith P.J.S. 2014. Quantitative exploration of the contribution of settlement, growth, dispersal, and grazing to the accumulation of natural marine biofilms on antifouling and fouling-release coatings. *Biofouling*. 30: 223-236.
40. *Shanahan T.M., Hughen K.A., Van Mooy B.A.S. 2013. Temperature sensitivity of branched and isoprenoidal GDGTs in Arctic lakes. *Org Geochem*. 64:119-128.
39. *Popendorf, K.J., *Fredricks, H.F., and Van Mooy, B.A.S. (2013) Molecular-ion independent quantitation of intact polar diacylglycerolipids in marine plankton using triple quadrupole MS. *Lipids* 48: 185-195.
38. *Martin, P., and Van Mooy, B.A.S. (2013) Fluorometric quantification of polyphosphate in marine samples: dissolution protocols, matrix effects, and nucleic acid interference, *Appl Environ Microb.* 79: 273-281.
37. Schouten, S., Hopmans, E.C., Rosell-Melé, A., Pearson, A., Adam, P., Bauersachs, T., Bard, E., Bernasconi, S.M., Bianchi, T.S., Brocks, J.J., Carlson, L.T., Castañeda, I.S., Derenne, S., Selver, A.D., Dutta, K., Eglinton, T., Fosse, C., Galy, V., Grice, K., Hinrichs, K.-U., Huang, Y., Huguet, A., Huguet, C., Hurley, S., Ingalls, A., Jia, G., Keely, B., Knappy, C., Kondo, M., Krishnan, S., Lincoln, S., Lipp, J., Mangelsdorf, K., Martínez-García, A., Ménot, G., Mets, A., Mollenhauer, G., Ohkouchi, N., Ossebaar, J., Pagani, M., Pancost, R.D., Pearson, E.J., Peterse, F., Reichart, G.-J., Schaeffer, P., Schmitt, G., Schwark, L., *Shah, S.R., Smith, R.W., Smittenberg, R.H., Summons, R.E., Takano, Y., Talbot, H.M., Taylor, K.W.R., Tarozo, R., Uchida, M., van Dongen, B.E., Van Mooy, B.A.S., Wang, J., Warren, C., Weijers, J.W.H., Werne, J.P., Woltering, M., Xie, S., Yamamoto, M., Yang, H., Zhang, C.L., Zhang, Y., Zhao, M., Damsté, J.S.S., 2013. An interlaboratory study of TEX86 and BIT analysis of sediments, extracts, and standard mixtures. *Geochemistry, Geophysics, Geosystems* 14, 5263-5285.
36. †Vardi, A., Haramaty, L., Van Mooy, B.A.S., *Fredricks, H.F., Kimmance, S., Larsen, A., Bidle, K.D. (2012) Host-virus dynamics and subcellular controls of cell fate in a natural coccolithophore population. *Proc. Natl. Acad. Sci.*, 109: 19327-19332.
35. O'Neil, G.W., C.A. Carmichael, T.J. Goepfert, J.M. *Fulton, G. Knother, C.P.L. Lau, S.R. Lindell, N.G.-E. Mohammady, B.A.S. Van Mooy, and C.M. Reddy, (2012) Beyond fatty acid methyl esters: Expanding the renewable carbon profile with microalgal lipids from *Isochrysis* sp. *Energy and Fuels*, 26: 2432-2441.
34. *Hmelo, L.R., Van Mooy, B.A.S., and Mincer, T.J. (2012) Bacterial epibionts in *Trichodesmium* colonies are distinct from bacteria in surrounding waters. *Aquat. Microb. Ecol.* 67: 1-14.
33. *Bellinger, B. J. and Van Mooy, B. A. S. (2012) Non-phosphorus lipids in periphyton reflect available nutrients in the Florida Everglades, U.S.A. *J. Phycol.* 48: 303-311.

32. Van Mooy, B. A. S., *Hmelo, L.R., *Sofen, L.E., Campagna, S.R., May, A.L., Dyhrman, S.T., Heithoff, A., Webb, E.A., Momper, L., Mincer, T.J. (2012) Quorum sensing control of phosphorus acquisition in *Trichodesmium* consortia. *ISME J.* 6:422-429.
31. Reddy, C.M., Arey, J.S., Seewald, J.S., Sylva, S.P., Lemkau, K.L., Nelson, R.K., Carmichael, C.A., McIntyre, C.P., Fenwick, J., Ventura, G.T., Van Mooy, B.A.S., and Camilli, R. (2012) Composition and fate of gas and oil released to the water column during the *Deepwater Horizon* spill. *Proc. Nat. Acad. Sci., USA.* 109: 20229-20234.
30. *Popendorf, K.J., Lomas, M.W., and Van Mooy, B.A.S. (2011) Microbial sources of intact polar diacylglycerolipids in the western North Atlantic Ocean. *Org. Geochem.* 42: 803–811.
29. *Popendorf K.J., Tanaka T., Pujó-Pay M., Lagaria A., Couties C., Conan P., Oriol L., Sofen L.E., Moutin T., Van Mooy B.A.S. (2011). Gradients in intact polar diacylglycerolipids across the Mediterranean Sea are related to phosphate availability. *Biogeosci.* 8: 2547-2560.
28. Wurch, L.L, Bertrand, E, Saito, M., Van Mooy, B.A.S., Dyhrman, S.T. (2011). Proteome changes driven by phosphorus deficiency and recovery in the brown-tide forming alga *Aureococcus anophagefferens*. *PLoS One* 6: e28949.
27. *Hmelo L.R., Mincer T. J., and Van Mooy B. A. S. (2011) Possible influence of bacterial quorum sensing on the hydrolysis of sinking particulate organic carbon in marine environments. *Environ. Microbiol. Reports* 3: 682-688.
26. *Edwards, B.R., Reddy, C.M., Camilli, R., Carmichael, C., *Longnecker, K., Van Mooy, B.A.S. (2011) Rapid microbial respiration of *Deepwater Horizon* oil in surface waters of the Gulf of Mexico. *Environ. Res. Lett.* 6: 035301
25. *Martin P., Van Mooy B. A. S., Heithoff A., and Dyhrman S. T. (2011) Phosphorus supply drives rapid turnover of membrane phospholipids in the diatom *Thalassiosira pseudonanna*. *ISME J.* 5, 1057-1060.
24. Van Mooy B. A. S. and *Fredricks H. F. (2010) Bacterial and eukaryotic intact polar lipids in the eastern subtropical South Pacific: water-column distribution, planktonic sources, and fatty acid composition. *Geochimica et Cosmochimica Acta.* 74: 6499-6516.
23. *Longnecker K., Lomas M. W., and Van Mooy B. A. S. (2010) Abundance and diversity of heterotrophic bacterial cells assimilating ³³P-phosphate in the subtropical North Atlantic Ocean. *Environ. Microbiol.* 12: 2773-2782.
22. Camilli R., Reddy C. M., Yoerger D. R., Van Mooy B. A. S., Jakuba M. V., Kinsey J. C., McIntyre C. P., Sylvan S. P., and Maloney J. V. (2010) Tracking hydrocarbon plume transport and biodegradation at *Deepwater Horizon*. *Science.* 330: 201-204.
21. †Vardi A., Van Mooy B. A. S., *Fredricks H. F., *Popendorf K. J., *Ossolinski J. E., Haramaty L., and Bidle K. A. (2009) Viral glycosphingolipids induce lytic infection and cell death in marine phytoplankton. *Science* 326, 861-865.
20. *Hmelo, L. R. and Van Mooy, B.A.S. (2009) Kinetic constraints on acylated homoserine lactone-based quorum sensing in marine environments. *Aquat. Microb. Ecol.* 54:127-133.

19. Van Mooy, B.A.S., *Fredricks, H.F., *Pedler, B.E., Dyhrman, S.T., Karl, D.M., Koblížek, M., Lomas, M.W., Mincer, T., Moore, L.R., Moutin, T., Rappé, M.S., and Webb, E.A. (2009) Phytoplankton in the ocean substitute lipids in response to phosphorus scarcity. *Nature*. 458:69-72.
18. Schouten, S., Hopmans, E. C., van der Meer, J., Mets, A., Bard, E., Bianchi, T. S., Diefendorf, A., Escala, M., Freeman, K. H., Furukawa, Y., Huguet, C., Ingalls, A., Ménot-Combes, G., Nederbragt, A. J., Oba, M., Pearson, A., Pearson, E. J., Rosell-Melé, Schaeffer, P., Shah, S. R., *Shanahan, T., Smith, R. W., Smittenburg, R., Talbot, H. M., Uchida, M., Van Mooy, B. A. S., Yamamoto, M., Zhang, Z., and Sinnginghe Damsté, J. S.: (2009) An interlaboratory study of TEX86 and BIT analysis using high-performance liquid chromatography-mass spectrometry. *Geochem. Geophys. Geosyst.*, 10, Q03012.
17. Van Mooy, B.A.S. and A.H. Devol (2008) Assessing nutrient limitation of *Prochlorococcus* in the North Pacific subtropical gyre by using an RNA capture method. *Limnol. Oceanogr.* 53:78-88.
16. Van Mooy, B.A.S., Moutin, T., Duhamel, S., Rimmelin, P., and Van Wambeke, F. (2008) Phospholipid synthesis rates in the eastern subtropical South Pacific Ocean. *Biogeosciences* 5:95-109.
15. Dehairs, F., S. Jacquet, N. Savoye, J. Bishop, B. A. S. Van Mooy, K. Buesseler, C. Lamborg, M. Elskens, P. Boyd, K. Casciotti and W. Baeyens (2008). Barium in twilight zone suspended matter as a proxy for particulate organic carbon mineralization: Results for the North Pacific. *Deep-Sea Research II*. 55:1673-1672.
14. Elskens, M., N. Brion, K.O. Buesseler, B.A.S. Van Mooy, P. Boyd, F. Dehairs. N. Savoyes and W. Baeyens (2008). Primary, new and export production in the NW Pacific Subarctic Gyre during the VERTIGO K2 experiments. *Deep-Sea Res. II*. 55: 1594-1604.
13. Ventura, G.T., Kenig, F., Frysinger, G.S., Reddy, C.M., Nelson, R.K., Van Mooy, B.A.S. and Gaines, R.B. (2008) Composition and formation of unresolved complex mixtures in Late Archaean sediments using comprehensive two-dimensional gas chromatography (GCxGC). *Org. Geochem.*39:846-867.
12. Steinberg, D.K., B.A.S. Van Mooy, K.O. Buesseler, P.W. Boyd, T. Kobari and D.M. Karl (2008). Microbial vs. zooplankton control of sinking particle flux in the ocean's twilight zone. *Limnol. Oceanogr.* 53:1327-1338.
11. Moutin, T., Karl, D., Duhamel, S., Rimmelin, P., Raimbault, P. and Van Mooy, B. (2008) Phosphate availability: ultimate control of new nitrogen input by nitrogen fixation in the tropical Pacific Ocean. *Biogeosciences* 5:95-109.
10. Duhamel, S., Moutin, T., Van Wambeke, F., Van Mooy, B., Rimmelin, P. Raimbault, P. and Claustre, H. (2007) Growth and P-specific uptake rates of bacterial and phytoplanktonic communities in the Southeast Pacific (BISOSOPE cruise). *Biogeosciences* 4:941-956.
9. Dyhrman, S.T., Ammerman, J.W., and Van Mooy, B.A.S. (2007) Microbes and the marine phosphorus cycle. *Oceanography*. 20:110-116.
8. Buesseler, K.O., Lamborg, C.H., Boyd, P.W., Lam, P.J., Trull, T.W., Bidigare, R.R., Bishop, J.K.B., Casciotti, K.L., Dehairs, F., Elskens, M., Honda, M., Karl, D.M., Siegel,

- D.A., Silver, M.W., Steinberg, D.K., Valdes, J., Van Mooy, B., Wilson, S. (2007) Revisiting carbon flux through the ocean's twilight zone. *Science*. 316:567-570.
7. Van Mooy, B.A.S., Rocap, G., *Fredricks, H.F., *Evans, C.T., and Devol, A.H. (2006) Sulfolipids dramatically decrease phosphorus demand by picocyanobacteria in oligotrophic marine environments. *Proc. Natl. Acad. Sci.* 103:8607-8612.
 6. Van Mooy, B.A.S., Devol, A.H., and Keil, R.G. (2004) Quantifying ³H-thymidine incorporation rates by a phylogenetically defined group of marine planktonic bacteria (*Bacterioidetes* phylum). *Environ. Microbiol.* 6: 1061-1069.
 5. Van Mooy, B.A.S., Devol, A.H., and Keil, R.G. (2004) Relationships between bacterial community structure, light, and carbon cycling in the eastern subarctic North Pacific. *Limnol. Oceanogr.* 49:1056-1062.
 4. Van Mooy, B.A.S., Keil, R.G. and Devol, A.H. (2002) Impact of suboxia on sinking particulate organic carbon: Enhanced carbon flux and preferential degradation of amino acids via denitrification. *Geochim. Cosmochim. Acta* 66: 457-465.
 3. Van Mooy, B.A.S. and Keil, R.G. (2002) Seasonal variation in sedimentary amino acids and the association of organic matter with mineral surfaces in a sandy eelgrass meadow. *Mar. Ecol. Prog. Ser.* 227:275-280.
 2. Van Mooy, B., MacGregor, B., Hollander, D., Neilson, K., and Stahl, D. (2001) Evidence of tight coupling between bacteria and particulate organic carbon during seasonal stratification of Lake Michigan. *Limnol. Oceanogr.* 46:1202-1208.
 1. MacGregor, B.J., Van Mooy, B., Baker, B.J., Mellon, M., Moisander, P.H., Paerl, H.W., Zehr, J., Hollander, D.J. and Stahl, D.A. (2001) Microbiological, molecular biological and stable isotope evidence for nitrogen fixation in the open waters of Lake Michigan. *Environ. Microbiol.* 3: 205-219.

INVITED LECTURES AND PAPERS PRESENTED AT MEETINGS († Keynote, *Tutorial):

Van Mooy, B.A.S. (2019) Quorum sensing on marine particles and its impact on ocean biogeochemistry. *Marine Particles and Phycospheres Conference* Ascona, Switzerland

Van Mooy, B.A.S. (2019) Quorum sensing on marine particles and its impact on ocean biogeochemistry. *Biogeochemistry Workshop - Hanse-Wissenschaftskolleg Institute for Advanced Study*. Bremen, Germany.

Van Mooy, B.A.S. (2018) Microbial phosphorus reduction in the modern ocean: rapid rates of thermodynamically unexpected pathways. *Northwestern University – Department of Geosciences*. Evanston, IL.

Van Mooy, B.A.S. (2018) Marine lipidomics at rapid temporal scales and small spatial scales. *Gordon Research Conference – Organic Geochemistry*, Holderness, NH.

Van Mooy, B.A.S. (2018) The *Trichodesmium* microbiome and its role in the marine nitrogen and phosphorus cycles. *Harvard Geobiology Seminar*. Cambridge, MA.

- Van Mooy, B.A.S. (2018) The *Trichodesmium* microbiome and its role in the marine nitrogen and phosphorus cycles. *WHOI Geodynamics Seminar*. Woods Hole, MA.
- †Van Mooy, B.A.S. (2017) The challenges of quantifying the impact of microbial interactions on upper ocean nutrient cycling. *Goldschmidt Conference*. Paris, France.
- †Van Mooy, B.A.S. (2017) The challenges of quantifying the impact of microbial communication on biogeochemical fluxes. *CIFAR-GBMF Workshop – Message in a Bottle*. Eilat, Israel.
- *Van Mooy, B.A.S. (2017) The influence of microbial interactions on biogeochemical processes in the ocean. *ASLO Meeting*, Honolulu, HI.
- Van Mooy, B.A.S. (2016) The potential for chemically-mediated microbial interactions to affect the strength of the ocean's biological carbon pump. *Gordon Research Conference – Marine Microbes*. Girona, Spain.
- Van Mooy, B.A.S. (2016) New insights on the chemical forms and microbial cycling of phosphorus in the upper ocean. *Biology Department Seminar, Bowling Green State University*. Bowling Green, OH.
- Van Mooy, B.A.S. (2015) An intersection between infochemicals, microbial interactions, and the ocean's biological pump. *National Oceanography Centre* Southampton, UK.
- Van Mooy, B.A.S. (2015) Phosphorus redox cycling in the upper ocean. *Chemical Oceanography Gordon Research Conference*, Holderness, NH.
- Van Mooy, B.A.S. (2015) New insights on the chemical forms and cycling of phosphorus in oligotrophic ocean environments. *Monterey Bay Aquarium Research Institute*, Monterey, CA.
- Van Mooy, B.A.S. (2015) Plankton booms and busts: biomolecules and their potential applications. *Sippican Philosophical Society*, Carver, MA.
- Van Mooy, B.A.S. (2015) Field observations of intersections between infochemicals, microbial interactions, and the ocean's biological pump. *Microscale Ocean Biophysics Conference*, Aspen.
- Van Mooy, B.A.S. (2015) Upward revision of bacterial growth rates in the ocean. *University of Rhode Island Graduate School of Oceanography*, Narragansett, RI.
- Van Mooy, B.A.S. (2015) AutoBOD: A device that greatly streamlines detection of biological oxygen demand (BOD). *MassCEC*, Boston, MA.
- Van Mooy, B.A.S. (2014) Upward revision of bacterial growth rates in the ocean. *Department of Marine Chemistry and Geochemistry, WHOI*. Woods Hole, MA.
- Van Mooy, B.A.S. (2014) Upward revision of bacterial growth rates in the ocean. *National Oceanography Centre* Southampton, UK.
- Van Mooy, B.A.S. (2014) Infochemical mediation of the degradation of sinking particulate organic matter. *Bigelow Marine Laboratory Weekly Seminar*, Boothbay Harbor, ME.
- Van Mooy, B.A.S. (2014) Infochemical mediation of the degradation of sinking particulate organic matter. *Office of Carbon Biogeochemistry Summer Workshop*. Woods Hole, MA.

- Van Mooy, B.A.S. (2013) How might microbial communications control the levels of carbon dioxide in the atmosphere. *University of Southampton*, Southampton, UK.
- Van Mooy, B.A.S. (2013) Quorum Sensing and the Marine Carbon Cycle: How Might Microbial Communications Control the Levels of Carbon Dioxide in the Atmosphere? *Twenty-fifth Annual Kavli Frontiers of Science Symposium, National Academy of Science Beckman Center*, Irvine, CA.
- Van Mooy, B.A.S. (2013) The fundamental microbial processes that contribute to the accumulation of natural biofilms on ships' hulls. *Department of Marine Chemistry and Geochemistry, WHOI*. Woods Hole, MA.
- Van Mooy, B.A.S. (2013) It take a village to raise a phytoplankter: the colonial cyanobacterium *Trichodesmium*. *Workshop for Middle- and High-School Teachers, Woods Hole, MA*.
- Van Mooy, B.A.S. (2012) Microbial sources and biogeochemical roles of non-phosphorus lipids in the upper ocean. *LDEO*, Palisades, NY.
- Van Mooy, B.A.S. (2012) Role of infochemical signaling in carbon and nutrient cycling in marine systems. *EAPS – MIT*, Cambridge, MA.
- Van Mooy, B.A.S. (2012) Role of infochemical signaling in carbon and nutrient cycling in marine systems. *NOCS*, Southampton, UK.
- Van Mooy, B.A.S. (2012) Role of infochemical signaling in carbon and nutrient cycling in marine systems. *UMass-Dartmouth*, New Bedford, MA.
- Van Mooy, B.A.S. (2012) Microbial lipids as indicators of *in situ* microbial processes in ship-hull biofilms. *ONR-SEACOAT Workshop*, Las Vegas, NV.
- Van Mooy, B.A.S., Edwards, B., Reddy, C.R., Camilli, R., Carmichael, C., Longnecker, K. (2012) Microbial respiration of oil in surface waters in close proximity to the Deepwater Horizon site. *SOST DWH Workshop*, St. Petersburg, FL.
- Van Mooy, B.A.S. (2011) Microbial sources and biogeochemical roles of non-phosphorus lipids in the upper ocean. *Gordon Research Conference – Chemical Oceanography*. Andover, NH.
- Van Mooy, B.A.S. (2011) Cell-density dependent organic carbon degradation among particle associated bacteria in the ocean. *Aquatic Microbiology Symposium – Canadian Society of Microbiologists*. St. John's, Newfoundland, Canada.
- Van Mooy, B.A.S. (2011) Microbial lipids as indicators of microbial processes and novel anti-fouling strategies in natural ship-hull biofilms. *ONR Coatings/Biofouling Program Review*. New Orleans, LA.
- Van Mooy, B.A.S. and B. Jenkins. (2011) Town Hall Meeting: Microbial biogeography and biogeochemistry. *ASLO Meeting*. San Juan, Puerto Rico.
- Van Mooy, B.A.S. (2011) Changes in the lipids of marine phytoplankton in response to environmental stressors. *Gordon Research Conference – Plant Lipids*. Galveston, TX.
- Van Mooy, B.A.S. (2010) Calculus of P-Acquisition versus P-sparing by plankton in the oligotrophic ocean. *AGU Fall Meeting*, San Fransisco, CA.
- Van Mooy, B.A.S. (2010) Calculus of P-Acquisition versus P-sparing by plankton in the Sargasso Sea. *IMBER IMBIZO II Meeting*, Heraklion, Greece.

Van Mooy, B.A.S. (2010) Role of polar lipids in the infection of *Emiliana huxleyi* by coccolithoviruses. *Gordon Research Conference – Organic Geochemistry*. Holderness School, Holderness, NH

Van Mooy, B.A.S. (2010) Membrane lipid dynamics in the upper ocean and the promise of lipidomics for marine microbiology. *Omics and Emerging Tools at the Interface of Chemistry and Biology – University of Tennessee*. Knoxville, TN.

Van Mooy, B.A.S. (2009) Role of quorum sensing in the degradation of sinking particulate carbon in the upper ocean. *Marine and Coastal Sciences Seminar*. Rutgers University.

Van Mooy, B.A.S. (2009) Role of quorum sensing in the degradation of sinking particulate carbon in the upper ocean. *Environmental Geochemistry and Geology Seminar*. Princeton University.

Van Mooy, B.A.S., Boyd, P., Carlson, C., White, S. (2009) Assessing Bacterial Carbon Demand (and other Processes) in the Twilight Zone: Results from VERTIGO and Future Approaches. *AGU Chapman Conference – Biological Pump*. Southampton, UK.

Van Mooy, B.A.S. (2009) Microbial lipids as indicators of microbial processes and novel anti-fouling strategies in natural ship-hull biofilms. *ONR Coatings/Biofouling Program Review*. Portland, OR.

Van Mooy, B.A.S. (2008) Mass spectrometry-based study of microfouling community dynamics and cell-cell signaling in ship hull biofilms. *ONR Coatings/Biofouling Program Review*. Charleston, S.C.

Van Mooy, B.A.S. (2008). Phospholipid substitutions by phytoplankton are a universal adaptation to oligotrophy. *Marine Sciences Seminar*. University of Southern California.

Van Mooy, B.A.S. (2008). Phospholipid substitutions by phytoplankton are a universal adaptation to oligotrophy. *Marine Chemistry Seminar*. University of South Florida. St. Petersburg, Florida.

Van Mooy, B.A.S. (2007). Phospholipid substitutions by phytoplankton are a universal adaptation to oligotrophy. *Chemical Oceanography Seminar*. Massachusetts Institute of Technology. Cambridge, Massachusetts.

Van Mooy, B.A.S. (2007) Mass spectrometry-based study of microfouling community dynamics and cell-cell signaling in ship hull biofilms. *ONR Coatings/Biofouling Program Review*. Monterey, California.

Van Mooy, B.A.S. (2007) Rapid Growth by Heterotrophic Bacteria in the Subtropical Gyres. *Department of Marine Chemistry and Geochemistry Seminar*. Woods Hole Oceanographic Institution. Woods Hole, Massachusetts.

Van Mooy, B.A.S. (2007) Turnover rates of phospholipids in the oligotrophic South Pacific: a signal of rapid microbial phosphorus cycling? *Special Seminar*. Centre d'Océanologie de Marseille, Marseille, France.

Van Mooy, B.A.S. (2006) Overview of graduate and summer programs at Woods Hole Oceanographic Institution. *Senior Seminar*. Barnard College, New York, New York.

- Van Mooy, B.A.S. (2006) Mass spectrometry-enabled investigation of bacterial cell-cell signaling in the sea. *Brown Bag Seminar*. Barnard College, New York, New York.
- Van Mooy, B.A.S. (2006) Bacterial cell-cell signaling molecules in marine environments. *ONR Progress Review, Northeast Region*. Woods Hole Oceanographic Institution. Woods Hole, Massachusetts
- Van Mooy, B.A.S. (2006) Mass spectrometry-based study of bacterial community succession and cell-cell signaling in ship hull biofilms. *ONR Coatings/Biofouling Program Review*. Towson, Maryland.
- Van Mooy, B.A.S. (2006) Sulfolipids dramatically decrease phosphorus demand by picocyanobacteria in oligotrophic marine environments: Implications for the Proterozoic Ocean. *Department of Geological Sciences Seminar*, Northwestern University, Evanston, Illinois.
- Van Mooy, B.A.S. (2006) Sulfolipids dramatically decrease phosphorus demand by picocyanobacteria in oligotrophic marine environments. *Earth and Planetary Science Department Seminar*, Harvard University, Cambridge, Massachusetts.
- Van Mooy, B.A.S. (2005) Phospholipids in the Pacific Ocean. *Botany Seminar*. Czech Academy of Science. Ceske Budejovice, Czech Republic.
- Van Mooy, B.A.S. (2005) Phospholipid synthesis by heterotrophic bacteria was a significant biochemical sink for plankton phosphorus uptake. *BIOSCOPE Meeting*. Villefranche, France.
- Van Mooy, B.A.S. (2004) The biochemical and microbiological fates of phosphate in oligotrophic marine systems. *Department of Chemical Oceanography Seminar*. Massachusetts Institute of Technology. Cambridge, Massachusetts.
- Van Mooy, B.A.S. (2004) Taxon-specific DOC and phosphorus cycling in the North Pacific subtropical gyre. *Department of Marine Chemistry and Geochemistry Seminar*. Woods Hole Oceanographic Institution. Woods Hole, Massachusetts
- Van Mooy, B.A.S. (2004) Genomes, ribosomes and membranes: tracing the fate of phosphorus in plankton. *Assembly of MIT-WHOI Joint Program Students*. Woods Hole Oceanographic Institution. Woods Hole, Massachusetts
- Van Mooy, B.A.S. (2003) Carbon and phosphorus cycling by phylogenetically-defined groups of bacteria in the North Pacific Ocean. *Department of Chemical Oceanography Seminar*. University of Washington. Seattle, Washington.
- Van Mooy, B.A.S. (2003) Tracing taxon specific growth in aquatic systems. *Large Lakes Observatory and Department of Chemistry Seminar*. University of Minnesota, Duluth. Duluth, Minnesota.
- Van Mooy, B.A.S. (2003) Application of a novel DNA-tracing method to the study of carbon cycling by heterotrophic bacteria in the North Pacific. Geophysical Laboratory. Carnegie Institution of Washington. Washington, D.C.

LECTURES AND PAPERS PRESENTED AT MEETINGS:

Popendorf, K.J, Koblížek, M., and Van Mooy, B.A.S. 2020. Phospholipid turnover rates suggest that bacterial community growth rates in the open ocean are systematically underestimated. *Ocean Sciences Meeting*, San Diego, CA.

Acker, M., Bachi, G., Granzow, B.N., Sosa, O., Ebling, A.M., Wilson, S.T., Van Mooy, B.A.S., Karl, D.M., Santinelli, C., Granzow, T.S., Repeta, D. 2020 Piecing together phosphonate cycling in the surface oligotrophic ocean. *Ocean Sciences Meeting*, San Diego, CA.

Coe, L., Van Mooy, B.A.S. 2020. Phosphate may be fully reduced to phosphine gas in anoxic seawater. *Ocean Sciences Meeting*, San Diego, CA.

Kranzler, C.F., Krause, J.W., Brzezinski, M.A., Edwards, B.R., Biggs, W.P., Maniscalco, M., McCrow, J.P., Van Mooy, B.A.S., Bidle, K.D., Allen, A.E., Thamtracoln, K. 2020. Biogeochemical consequences of diatom-virus interactions in the California Current Ecosystem *Ocean Sciences Meeting*, San Diego, CA.

Biller, S., Lundeen, R.A., Hmelo, L., Becker, K., Arellano, A., Dooley, K., Carlson, L., Heal, K., Van Mooy, B.A.S., Ingalls, A.E., Chisholm, S.W. 2020. The Marine Cyanobacterium *Prochlorococcus* Releases Diverse 'Dissolved' Organic Molecules Within Extracellular Vesicles *Ocean Sciences Meeting*, San Diego, CA.

Mooy, B.A.S. and Holm, H. 2019. Lipidomics of suspended and sinking POC during EXPORTS. *EXPORTS PI Meeting*. Williamsburg, VA.

Fulton, J.M., Herckes, P., Fraser, M.P., Collins, J.R., and Van Mooy, B.A.S. 2018. Microbial Biomarkers for Native and Agricultural Soil Inputs to Atmospheric Particulate Matter. *AGU Meeting Tempe*, AZ.

Becker, K.W., Collins, J.R., Durham, B.P., Groussman, R.D., White, A.E., Fredricks, H.F., Ossolinski, J.E., Repeta, D.J., Carini, P., Armbrust, E.V., Van Mooy, B.A.S. 2018. Deciphering microbial growth and intracellular energy flux from lipidomics. Oral. *Goldschmidt Meeting*, Boston, MA.

Fulton, J.M and Van Mooy, B.A.S. 2018. Scytonemin C and N isotopic signatures in biological soil crusts, microbialites, and sediments. *Goldschmidt Meeting, Boston, MA*.

Bidle, K, Nissimov, J.I., Talmy, D., Haramaty, L., Fredricks, H.F., Zelzion, D., Murat Eren, A., Gardella, R., Laber, C., Moore, K., Coolen, M., Bhattacharya, D., Van Mooy, B.A.S., and Follows, M.J. (2018) The competitive ecology of coccolithoviruses. *Ocean Sciences Meeting*. Portland, OR.

Ebling, A.M. and Van Mooy, B.A.S. 2018. The production and utilization of low molecular weight P(+3) compounds in surface waters of the North Atlantic. *Ocean Sciences Meeting*. Portland, OR.

Johns, C., Nissimov, J.I., Natale, F., Knapp, V., Fredricks, H.F., Mui, A., Van Mooy, B.A.S., and Bidle, K.D. 2018. The mutual interplay between calcification and coccolithovirus infection. *Ocean Sciences Meeting*. Portland, OR.

Laber, C.P., Hunter, J.E., Carvalho, F., Collins, J.R., Hunter, E.J., Schieler, B.M., Boss, E., More, K., Frada, M., Thamtracoln, K., Brown, C.M., Haramaty, L., Ossolinski, J., Fredricks,

H., †Nissimov, J.I., Vandzura, R., Sheyn, U., Lehahn, Y., Chant, R.J., Martins, A.M., Coolen, M.J.L., Vardi, A., DiTullio, G.R., Van Mooy, B.A.S., Bidle, K.D., 2018. Coccolithovirus infection enhances vertical carbon flux in the North Atlantic. *Ocean Sciences Meeting*. Portland, OR.

Hunter, J.E., Fredricks, H.F., Behrendt, L. Alcolomri, U., Smriga, S., Yawata, R., Sengupta, A., Stocker, R., Van Mooy, B.A.S. 2018. Microscale organic matter degradation dynamics as determined by single particle nano-lipidomics. *Ocean Sciences Meeting*. Portland, OR.

Becker, K., Gazalah, S., Caron, D.A., Lindell, D., Fredricks, H.F., Chisholm, S.W., Van Mooy, B.A.S. 2018. Effects of viral infection and grazing on the lipidome of *Prochlorococcus*. *Ocean Sciences Meeting, Portland, OR*.

Collins, J.R., Fredricks, H.F., Diaz, J.M., Bowman, J.S., Ward, C., Moreno, C., Longnecker, K., Marchetti, A., Hansel, C.M., Ducklow, H.W., and Van Mooy, B.A.S. 2018. Photo-oxidation of membrane lipids in marine plankton: A biogeochemically significant process for carbon turnover in the coastal surface waters of Antarctica. *Ocean Sciences Meeting, Portland, R*.

Van Mooy, B.A.S. (2017) Attempts to integrate microbial interactions in *Trichodesmium* colonies into a basic nitrogen fixation model. *Department of Marine Chemistry and Geochemistry, WHOI*. Woods Hole, MA.

Ebling A. and Van Mooy, B.A.S. (2017) Production of P(III) compounds in the surface waters of the North Atlantic Ocean. *Goldschmidt Meeting*, Paris, France.

Hunter, J. E.; Fredricks, H. F.; Behrendt, L.; Smriga, S.; Yawata, Y.; Sengupta, A.; Alcolombri, U.; Stocker, R.; Van Mooy, B.A.S. (2017) Single Particle Lipidomics: Microscale Lipid Analysis of Organic Matter Degradation in Sinking Particulate Matter. *ASLO Aquatic Sciences Meeting, Honolulu, HI, USA*.

Mayers, K. M.; Fredricks, H. F.; Poulton, A. J.; Van Mooy, B. (2017) Comparative lipidomics of prymnesiophyte algae and their adaptive response to nutrient limitation. *ASLO Aquatic Sciences Meeting, Honolulu, HI, USA*.

Frischkorn, K. R.; Rouco, M.; Van Mooy, B.; Dyhrman, S. T. (2017) Microbiome quorum sensing influences nitrogen fixation in *Trichodesmium*. *ASLO Aquatic Sciences Meeting, Honolulu, HI, USA*.

Becker, K. W.; Collins, J. R.; Fredricks, H. F.; Ossolinski, J. E.; White, A. E.; Repeta, D. J.; Van Mooy, B. (2017) The microbial lipidome of the oligotrophic North Pacific subtropical gyre. *ASLO Aquatic Sciences Meeting, Honolulu, HI, USA*.

Nelson, A. J.; Church, M. J.; Dornan, N.; Kyi, E.; Van Mooy, B.; Ossolinski, J.; Viviani, D.: Rate of microbial activities associated with sinking particles at Station ALOHA. *ASLO Aquatic Sciences Meeting, Honolulu, HI, USA*.

Johnson, W. M.; Arnold, W. A.; Kido Soule, M. C.; Longnecker, K.; Van Mooy, B.; Kujawinski, E. B.: Links between metabolite dynamics on sinking particles and DOM. *ASLO Aquatic Sciences Meeting, Honolulu, HI, USA*.

Collins, J. R., B. R. Edwards, H. F. Fredricks, and B. A. S. Van Mooy. (2016) Discovery & identification of oxidative stress biomarkers in marine microbes using LOBSTAHS, a new R package for lipidomics. *16th International Symposium on Microbial Ecology (ISME16)*, Montreal, Canada.

Collins, J. R., B. R. Edwards, H. F. Fredricks, and B. A. S. Van Mooy. (2016) Discovery and identification of biomarkers for oxidative stress in phytoplankton using LOBSTAHS, a new pipeline for semi-untargeted lipidomics. *EMBO/EMBL Symposium: A New Age of Discovery for Aquatic Microeukaryotes, European Molecular Biology Laboratory, Heidelberg, Germany.*

Becker, K.W., Collins, J.R., Fredricks, H.F., Ossolinski, J.E. and Van Mooy, B.A.S. (2016) The Microbial Lipidome of the Oligotrophic North Pacific Subtropical Gyre. *Gordon Research Conference – Organic Geochemistry*, Holderness, NH.

Fulton, J. M. and Van Mooy, B.A.S. (2016) Carbon And Nitrogen Isotope Excursions In Pleistocene/Holocene Great Salt Lake Sapropels. *GSA Annual Meeting*, Denver, CO.

Van Mooy, B.A.S. (2015) Marine microbial lipidomics. *Department of Marine Chemistry and Geochemistry, WHOI*. Woods Hole, MA.

Harvey, E. L.; Poulson-Ellestad, K.; Mincer, T.; Van Mooy, B.; Bidle, K. D.; Johnson, M.; (2015) The combined influence of morphology and chemistry in mediating heterotrophic protist grazing interactions. *Aquatic Science Meeting*, Granda, Spain.

Collins, J. R.; Fredricks, H. F.; Ducklow, H. W.; Van Mooy, B. A.; (2015) Biotic and abiotic production of oxylipin infochemicals along the western antarctic peninsula. *Aquatic Science Meeting*, Granda, Spain.

Campagna, S. R.; May, A. L.; Richardson, L. L.; Van Mooy, B. A.; Buchan, A.; (2015) Application of metabolomics and kinetic flux profiling to probe the linkage of signaling and metabolism in aquatic microbial interactions. *Aquatic Science Meeting*, Granda, Spain.

Hunter, J. E.; Frada, M. J.; Fredricks, H. F.; Vardi, A.; Van Mooy, B. A.; (2015) Molecular insights on viral infection and life cycle in *emiliana huxleyi* from targeted and untargeted lipidomics. *Aquatic Science Meeting*, Granda, Spain.

Sebastian, M.; Gonzalez, J. M.; Fredricks, H. F.; Van Mooy, B.; Koblizek, M.; Sa, E. L.; Mostajir, B.; Pitta, P.; Gasol, J. M.; (2015) Marine heterotrophic bacteria synthesize non-phosphorus lipids upon phosphorus stress *Aquatic Science Meeting*, Granda, Spain.

Nissimov, J. I.; Fredricks, H.; Van Mooy, B.; Bidle, K. D.; (2015) The impact of biochemical diversity on infochemical production and viral demise of *emiliana huxleyi* *Aquatic Science Meeting*, Granda, Spain.

Johns, C. T.; Knapp, V.; Mui, A.; Natale, F.; Fredricks, H.; Van Mooy, B. A.; Bidle, K. D.; (2015) Mutual interplay between viruses and cellular pic quotas in *emiliana huxleyi* *Aquatic Science Meeting*, Granda, Spain.

Johnson, M. D.; Edwards, B. R.; Beaudoin, D. J.; Van Mooy, B. A.; Vardi, A.; (2015) Infochemical signaling mediates microzooplankton interactions with diatoms *Aquatic Science Meeting*, Granda, Spain.

Edwards, B. R.; Collins, J. R.; Fredricks, H. F.; Ossolinski, J. E.; McNair, H.; Brzezinski, M. A.; Krause, J. W.; Thamatrakoln, K.; Bidle, K. D.; Van Mooy, B. A.; (2015) Comparative lipidomics

link bloom decline to infochemical production in the california upwelling zone *Aquatic Science Meeting*, Granda, Spain.

Van Mooy, B. A.; Bidle, K. D.; Dyhrman, S. T.; Johnson, M. D.; Mincer, T. J.; Vardi, A.; (2015) Connections between infochemical communication and upper ocean elemental import and export. *Aquatic Science Meeting*, Granda, Spain.

Thamatrakoln, K.; Maniscalco, C.; Haramaty, L.; Allen, L.; Allen, A.; Van Mooy, B.; Bidle, K.; (2015) The role of light and photosynthesis in viral infection of marine, eukaryotic photoautotrophs *Aquatic Science Meeting*, Granda, Spain.

Thamatrakoln, K.; Maniscalco, C.; Fredricks, H. F.; Allen, L. Z.; Allen, A. E.; Van Mooy, B.; Bidle, K. D.; (2015) Differential effects of viral infection on host physiology in two strains of the diatom, *chaetoceros tenuissimus* *Aquatic Science Meeting*, Granda, Spain.

Fulton, J., Michel, L., Van Mooy, B.A.S., Oviatt, J. (2014) Scytonemin in Pleistocene and Holocene sediments from Great Salt Lake, Utah. *Gordon Research Conference Organic Geochemistry*, Holderness, NH.

Mouginot, C.; Lee, E. A.; Van Mooy, B. A.; Martiny, A. C.; (2014) Resource allocation by marine synechococcus in response to different nutrient supply ratios *Ocean Sciences Meeting*, Honolulu.

Martin, P.; Dyhrman, S. T.; Lomas, M. W.; Poulton, N.; Van Mooy, B.; (2014) Marine microbial response to low phosphorus results in accumulation and enhanced cycling of polyphosphate in the sargasso sea *Ocean Sciences Meeting*, Honolulu.

Collins, J. R.; Ossolinski, J. E.; Thamatrakoln, K.; Tagliaferre, J.; Van Mooy, B. A.; (2014) Budgeting respiratory loss processes: explaining observed variation in particle flux attenuation at seven stations in the North Atlantic *Ocean Sciences Meeting*, Honolulu.

Edwards, B. R.; Thamatrakoln, K.; Ossolinski, J. E.; Bidle, K. D.; Van Mooy, B. A.; (2014) The effects of oxylipins on particle associated microbial communities: implications for the silica cycle *Ocean Sciences Meeting*, Honolulu.

Kendrick, B. J.; DiTullio, G. R.; Fulton, J. M.; Van Mooy, B. A.; Bidle, K. D.; (2014) Temperature induced viral resistance in the coccolithophorid, *Emiliana huxleyi* (prymnesiophyceae) *Ocean Sciences Meeting*, Honolulu.

Coolen, M. J.; More, K.; Balkema, C.; Van Mooy, B.; Bidle, K.; (2014) The role of environmental factors in shaping the genetic diversity of the North Atlantic *Emiliana huxleyi*-coccolithovirus system. *Ocean Sciences Meeting*, Honolulu.

Laber, C. P.; Boss, E.; Vardi, A.; Van Mooy, B. A.; Bidle, K. D.; (2014) Assessing the impact of coccolithovirus infection on bloom and ecosystem dynamics in the north atlantic using in situ optical profiling floats *Ocean Sciences Meeting*, Honolulu.

Fulton, J. M.; Van Mooy, B.; Collins, J. R.; Hunter, J. E.; Bidle, K.; (2014) Lipid connections between viral termination of coccolithophore blooms and carbon export. *Ocean Sciences Meeting*, Honolulu.

Bidle, K. D.; Van Mooy, B. A.; Vardi, A.; DiTullio, G.; Coolen, M. J.; (2014) Lubrication of oceanic carbon and sulfur cycling by a host-virus chemical arms race: 'north atlantic virus infection of coccolithophores expedition' (navice) *Ocean Sciences Meeting*, Honolulu.

Van Mooy, B., Dyhrman, S., Alexander, H., and Ossolinski, J. (2013) Influence of quorum sensing on phosphorus acquisition and nitrogen fixation by *Trichodesmium* in the equatorial Atlantic. *Gordon Research Conference Chemical Oceanography* Biddeford, Maine.

Van Mooy, B.; Edwards, B. R.; Hmelo, L. R.; May, A. L.; Campagna, S. R.; Keil, R. G.; Mincer, T. J.; Ossolinski, J. E.; Sofen, L. E.; (2013) Influence of bacterial quorum sensing on organic matter hydrolysis in sinking particles. *Aquatic Sciences Meeting*. New Orleans.

Martin, P.; Van Mooy, B.; Bender, S.; Armbrust, G.; (2013) Ocean sections of polyphosphate and membrane lipids show distinct microbial responses to phosphorus stress and resupply. *Aquatic Sciences Meeting*. New Orleans.

Fulton, J.M., Fredricks, H.F, Vardi, A., Kendrick, B.J., DiTullio, G.R., Bidle, K.D., Van Mooy, B.A.S., (2013) Lipidome of the *Emiliana huxleyi*-coccolithovirus system in a warming ocean. *Aquatic Sciences Meeting*. New Orleans.

Edwards, B.R., May, A.L., Ossolinski, J.E., Fredricks, H.F., Campagna, S., and Van Mooy, B.A.S., (2013) The Potential Impacts of Allelopathy Between Diatoms and Particle Attached Bacteria On Export Efficiency, *Aquatic Sciences Meeting*. New Orleans.

Collins, J. R., Valdes, J. R., Ossolinski, J. E., Keil, R. G., Van Mooy, B. A. S., (2013) The PHORCYS: An autonomous, dual-chamber in situ incubator for the estimation of community metabolism, *Aquatic Sciences Meeting*. New Orleans.

Fredricks, H.F., Fulton, J., Dyhrman, S., Van Mooy, B.A.S., (2013) The flexible lipidome of *Emiliana huxleyi*; the capacity to cope with multiple nutrient stresses, *Aquatic Sciences Meeting*. New Orleans.

Shah, S.R., Griffith, D.R., Galy, V., McNichol, A.P., Van Mooy, B.A.S., Eglinton, T.I.,(2012) Isotopic indications of microbial metabolic activities in the Arctic Ocean, *Gordon Research Conference on Organic Geochemistry*. Holderness, NH.

Fulton, J.M., Longnecker, K., Fredricks, H.F, Van Mooy, B.A.S. (2012) Intact polar lipid degradation in the Sargasso Sea. *Gordon Research Conference on Organic Geochemistry*. Holderness, NH.

Shah, S.R., Pependorf, K, Van Mooy, B.A.S., (2012) Towards stable carbon isotopic composition of intact polar lipids in the Sargasso Sea, *Ocean Sciences Meeting*. Salt Lake City.

Pependorf, K. J.; Tanaka, T.; Pujo-Pay, M.; Lagaria, A.; Courties, C.; Conan, P.; Oriol, L.; Sofen, L. E.; Moutin, T.; Van Mooy, B.A.S.(2012) Gradients in intact polar membrane lipids across the Mediterranean Sea are related to phosphate availability. *Ocean Sciences Meeting*. Salt Lake City.

Keil, R. G.; Myers-Pigg, A. N.; van der Elst, K.; Neibauer, J.; Forrest, B.; Belcher, A. C.; Biladeau, C.; Van Mooy, B.A.S. Comparative organic geochemistry of sinking particles collected in net traps deployed in oligotrophic, coastal, and fjord settings. *Ocean Sciences Meeting*. Salt Lake City.

Bidle, K. D.; Vardi, A.; Haramaty, L.; Van Mooy, B.A.S.; Fredricks, H. F.; Larsen, A.; Kimmance, S.; DiTullio, G. R.; A host-virus chemical arms race at sea: placing subcellular controls on the cell fate into and ecological and biogeochemical context. *Ocean Sciences Meeting*. Salt Lake City.

- Edwards, B.R., Sofen, L.E., May, A.L., Campagna, S.R., Popenorf, K.J. Van Mooy, B.A.S. (2012) The effects of polyunsaturated aldehydes on the microbial communities associated with sinking POM from the Sargasso Sea during a spring bloom. *Ocean Sciences Meeting*. Salt Lake City.
- Campagna, S.R., May, A.L., Gooding, J.R., Szul, M.J., Zinser, E.R., Van Mooy, B.A.S. (2011) Application of liquid chromatography-tandem mass spectrometry based metabolomics and kinetic flux profiling to the study of carbon cycling and cell-cell signaling in oceanic microbial communities. *American Chemical Society Meeting* Denver, CO.
- Fredricks, H., Fulton, J., Vardi, A., Bidle, K., Van Mooy, B.A.S. (2011) Exploring the lipidome of infected *Emiliana huxleyi*. The use of mass spectrometry for the structural elucidation of membrane lipids implicated in viral invasion. *Aquatic Virus Workshop 6*, Texel, Netherlands, October 2011.
- Fulton, J.M., Fredricks, H.F., Bidle, K.D., DiTullio, G.R., Vardi, A. Van Mooy, B.A.S. (2011) Lipid-based mechanisms of viral infection and defense in *Emiliana Huxleyi*. *Aquatic Virus Workshop 6*. Texel, The Netherlands.
- Van Mooy, B.A.S. and Keil, R.G. (2011) The PHORCYS in situ incubation system. *OCB Scoping Workshop: a biogeochemical flux program aligned with OOI*. Woods Hole, MA.
- Martin, P., Moore, C., Torres-Valdes, S., Rocap, G., Pancost, R.D., Hernandez Sanches, M., Van Mooy, B.A.S. (2010) Sections of intact polar diacylglycerolipids in the South Atlantic reflect dissolved nitrogen and phosphorus distributions. *AGU Fall Meeting*, San Fransisco, CA.
- Vardi, A., Van Mooy, B., Fredricks, H., Haramaty, L., and Bidle, K. (2010) Chemical Arms Race at Sea: The role of sphingolipids in regulating host-virus interactions in the marine coccolithophore *Emiliana huxleyi*. *Ocean Sciences Meeting*, Portland, OR.
- Miller, M, Kantor, R., Hmelo, L., Van Mooy, B., and Mincer, T.J. (2010) Cultivation-based analyses of methylotrophic bacteria isolated from sinking marine aggregates in Clayoquot Sound, British Columbia. *Ocean Sciences Meeting*, Portland, OR.
- Kneeland, J.M., Hughen, K.A., Cervino, J., Van Mooy, B., and Fredricks, H. (2010) Lipid Biomarkers of Thermal and Disease Stress in Coral Zooxanthellae. *Ocean Sciences Meeting*, Portland, OR.
- Van Mooy, B., Longnecker, K., and Popenorf, K. (2010) Phospholipid Turnover Rates Suggest Rapid Cycling of Heterotrophic Bacterial Carbon in the Upper Ocean. *Ocean Sciences Meeting*, Portland, OR.
- Popenorf, K., Tanaka, T., Van Wambeke, F., Pujo-Pay, M., Courties, C., Moutin, T., Van Mooy, B. (2010) Phospholipid production and turnover in a nutrient addition microcosm experiment in the Mediterranean. *Ocean Sciences Meeting*, Portland, OR.
- Yum, L., Bashir Ali, S., Heithoff, A., Dyhrman, S., Van Mooy, B. (2010) Phosphorus Cycling in the Red Sea: New Insights on Phosphorus Limitation in Oligotrophic Environments. *Ocean Sciences Meeting*, Portland, OR.
- Hmelo, L., Van Mooy, B., and Mincer, T.J. Quorum sensing by particle-associated bacteria affects attenuation of particulate organic carbon flux in the oceans. *Ocean Sciences Meeting*, Portland, OR.

Dyhrman, S T; Haley, S T; Wurch, L L; Ossolinski, J; Van Mooy, B; (2009) Expression of a nitrate transporter in cultures and field populations of the the coccolithophore *Emiliana huxleyi*. *ASLO Aquatic Sciences Meeting*, Nice, France.

Vardi, A; Van Mooy, B; Fredricks, H; Haramaty, L; Bidle, K D; (2009) Virally-induced sphingolipids regulate host cell fate in the marine coccolithophore *Emiliana huxleyi*. *ASLO Aquatic Sciences Meeting*, Nice, France.

Hmelo, L R; Mincer, T; Van Mooy, B; (2009) Characterization of epibiotic bacterial community associated with wild-type and laboratory cultured *Trichodesmium*. *ASLO Aquatic Sciences Meeting*, Nice, France.

Van Mooy, B; Fredricks, H F; Pedler, B E; Dyhrman, S T; Karl, D M; Koblizek, M; Lomas, M W; Mincer, T; Moore, L R; (2009) Phytoplankton in the oligotrophic ocean substitute phospholipids in response to phosphorus limitation on a global scale. *ASLO Aquatic Sciences Meeting*, Nice, France.

Popendorf, K J; Van Mooy, B A; Fredricks, H F; Lomas, M W; Casey, J R; Johnson, C G; (2009) Functionally and taxonomically defined planktonic sources of intact polar lipids in the sea. *ASLO Aquatic Sciences Meeting*, Nice, France.

Van Mooy, B.A.S., Fredricks, H.F., Pedler, B.E., Longnecker, K., Popendorf, K., Moutin, T., Van Wambeke, Koblížek, M., Prášil, O. (2008) Reexamining growth rates of heterotrophic bacteria in the open ocean by using a new membrane phospholipid tracing method. *Ocean Sciences Meeting*. Orlando, Florida.

Hmelo, L.R., and Van Mooy, B.A. (2007) Investigation of acylated homoserine lactones in marine environments using electrospray-ionization mass spectrometry. *Aquatic Sciences Meeting*, Santa Fe, New Mexico.

Steinberg, D.K., Van Mooy, B.A., Buesseler, K.O., Boyd, P.W., Kobari, T., and Karl, D.M. (2007) Microbial vs. zooplankton control of sinking particle flux in the Ocean's twilight zone. *Aquatic Sciences Meeting*, Santa Fe, New Mexico.

Van Mooy, B., Dyhrman, S. Fredricks, H., Pedler, B., Koblížek, M., Moore, L., Moutin T., Brandon, M., Rappé, M., Rocap, G., Webb, E. (2007) Membrane lipid substitutions are a widely distributed and quantitatively significant biochemical mechanism for phytoplankton to alter nutrient requirements. *Aquatic Sciences Meeting*, Santa Fe, New Mexico.

Jones, V., B. Van Mooy, M. Weinbauer, A. Gogou, M.J. Collins, K. Penkman, C. Migon, D.J. Repeta. (2007) Degradation of dissolved organic matter: Chemical changes and the structure of the microbial community *38th CIESM Congress*, Istanbul, Turkey.

Van Mooy, B.A.S. (2006) New data suggests that bacterial production is tenfold higher than current estimates. *Biogeochemistry Seminar*. Woods Hole Oceanographic Institution. Woods Hole, Massachusetts.

Van Mooy, B.A.S. and Devol, A.H. (2006) Taxon-specific phosphate incorporation in the North Pacific subtropical gyre: application of a quantitative RNA hybridization capture method. *Ocean Sciences Meeting*. Honolulu, Hawaii.

- Fredricks, H.F. and Van Mooy, B.A.S. (2006) Identifying new Biomarkers for Marine Plankton Using Liquid Chromatography - Mass Spectrometry. *Poster - Ocean Sciences Meeting*. Honolulu, Hawaii.
- Moutin, T., Duhamel, S, Rimmelin, P, Van Wambeke, F, Van Mooy, B, Claustre, H (2006) Phosphate Pools and Turnover Time in the South Pacific Gyre (BIOSPE cruise 2004). *Ocean Sciences Meeting*. Honolulu, Hawaii.
- Popendorf, K and Van Mooy, B. (2006) A Liquid Chromatography/Mass Spectrometry-Enabled Study of Phosphatidylethanolamine: a Potential Proxy for the Turnover of Heterotrophic Bacterial Biomass. *Poster - Ocean Sciences Meeting*. Honolulu, Hawaii.
- Buesseler, K, Bishop, J, Casciotti, K, Dehairs, F, Lamborg, C, Siegel, D, Silver, M, Steinberg, D, Saito, S, Trull, T, Valdes, J, Van Mooy, B (2006) What We Know From VERTIGO. *Ocean Sciences Meeting*. Honolulu, Hawaii.
- Van Mooy, B.A.S., Devol, A.H., Fredricks, H.F., Moore, L., Moutin, T., Rocap, G., Van Wambeke, F., and Webb, E. (2005) Glycolipid Membranes Relieve Marine Picocyanobacteria of a Major Requirement for Phosphate. *ASLO Summer Meeting*, Santiago de Compostella, Spain.
- Van Mooy, B.A.S. and Devol, A.H. (2005) RNA hybridization capture suggest N-limitation of *Prochlorococcus* during summer in the North Pacific Subtropical Gyre. *ASM General Meeting*, Atlanta.
- Van Mooy, B.A.S., Devol, A.H., and Fredricks, H.F. (2005) Nucleic acids and intact polar lipids as functional biomarkers of microbial processes in the surface ocean: implications for sedimentary records. *Aquatic Sciences Meeting*. Salt Lake City.
- Devol, A.H., Van Mooy, B.A.S* and Keil, R.G. (2005) Relationships between bacterial community structure, light, and carbon cycling in the eastern subarctic North Pacific. *Aquatic Sciences Meeting*. Salt Lake City.
- Van Mooy, B.A.S., Evans, C.T., and Devol, A.H. (2004) Phosphate uptake by phylogenetically-defined groups of picoplankton in the North Pacific Subtropical Gyre. *AGU Ocean Sciences Meeting*. Portland, Oregon.
- Van Mooy, B.A.S., Hullar, M.A., Devol, A.H., Stahl, D.A., Hollander, D.J., and Evans, C.T. (2003) Microbial fate of phosphate in the oligotrophic waters of the Gulf of Mexico. *Aquatic Sciences Meeting*. Salt Lake City.
- Devol, A.H., Van Mooy, B.A.S., and Keil, R.G. (2002) Thymidine incorporation by specific bacterioplankton in Puget Sound, a quantitative, phylogenetically-based method to separate DNA. *ASLO Summer Meeting*. Victoria, B.C.
- Van Mooy, B.A.S., Grocock, J., Devol, A.H., and Keil, R.G. (2002) Bacterioplankton community structure affects response to bioavailable DOC in the eastern subarctic Pacific. *ASLO Summer Meeting*. Victoria, B.C.
- Van Mooy, B.A.S., Devol, A.H., and Keil, R.G. (2001) Planktonic bacteria and archaea in a coastal bay. *Aquatic Sciences Meeting*. Albuquerque.
- Van Mooy, B.A.S., Keil, R.G., and Devol, A.H. (2000) Enhanced Flux of POC in oxygen deficient waters: impact of suboxia on bulk OC and amino acids. *Gordon Research Conference, Organic Geochemistry*. Hanover.

Van Mooy, B., Keil, R., Devol, A.H. (2000) Early Diagenesis of particles sinking through the oxygen-deficient waters of the northwest Mexican margin. *Ocean Sciences Meeting*. San Antonio.

Van Mooy, B., Hollander, D., MacGregor, B., Stahl, D., Baker, B. and Nealson, K. (1998) Lipid and nucleic acid characteristics of POM: Analysis of water column carbon and nitrogen cycles in Lake Michigan. *Ocean Sciences Meeting*. San Diego.

Hollander, D., Van Mooy, B., Fogel, M., Aguilar, C., and Paerl, H. (1996) Does phosphate control isotopic fractionation by stimulating CO₂ pumping in diatoms? *Ocean Sciences Meeting*. San Diego.

Van Mooy, B. and Sageman, B. (1994) Origin of Cretaceous skeletal limestones: Western Interior U.S. *Geological Society of America, National Meeting*. Seattle.

PATENTS:

Systems and methods for continuous measurement of an analyte. *US Patent 15/827,681*. Van Mooy, B.A.S., Fucile, P.D, McDonald, G.E.

Marine sample analysis system: in situ photosynthesis and respiration. *U.S. Patent 13/476,531* Van Mooy, B.A.S., Keil, R.G.

Bioactive Compounds from Phytoplankton Containing Glycosidic Residue for Apoptosis and Cancer Treatment *US Patent 9/217,741* Bidle, K.D., Vardi, A., Van Mooy, B.A.S., Fredricks, H.F., Haramaty, L.

Methods for obtaining bioactive compounds from phytoplankton. *U.S. Patent 8/557,514*. Van Mooy, B.A.S., Fredricks H.F., Bidle, K., Vardi, A. 2009.