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Updated 11-7-19

PERSONAL

Married: (Meredith Parmelee), 2 children (Nicki, Chaz)

EMPLOYMENT

2012-2018 Chair, Department of Earth Sciences, University of Southern California
 2008-present Professor, University of Southern California
 2004-2008 Associate Professor, University of Southern California
 1996-2004 Research Associate Professor, University of Southern California
 1988-1995 Research Assistant Professor, University of Southern California
 1985-1988 Research Associate of Geochemistry (Post-doc), U.S.C.

EDUCATION

Ph. D. Geological Sciences (Geochemistry), Studies of water column mixing and benthic exchange of nutrients, carbon and radon in the southern California borderland. *PhD Dissertation, University of Southern California*, 219 pp. **1985**.

M.S. Geological Sciences (Sedimentology), Barrier island evolution and its effect on lagoonal sedimentation; Shackleford Banks, Back Sound, and Harkers Island: Cape Lookout National Seashore. *M.S. Thesis, Duke University*, 227 pp. **1979**.

B.A. Geological Sciences, Cum Laude, University of Rochester, Rochester, N.Y. **1977**

PROFESSIONAL AFFILIATIONS, ACTIVITIES, HONORS

US Patent Pending Systems and methods for CO₂ sequestration in marine vessels (May 2019)

US Patent 9,988,653 Method and apparatus for CO₂ sequestration (June 2018)

USC Dornsife College Rubenheimer Award 2018

Outstanding Paper: 2012. PALOIS

General Education Teaching Award—USC Dornsife College (2011)

Member: NAS-NRC Committee on the Astrobiology Strategy for the Exploration of Mars

Associate Editor --*Reviews of Geophysics* (two terms)

N.S.F. Chemical Oceanography—Panelist (multiple years)

Member: US-JGOFS Steering Committee (elected to two terms)

Member: NSF advisory group: Biogeosciences

Member: American Geophysical Union, American Society of Limnologists and Oceanographers,
The Oceanography Society
Cited: CSIRO award for Port Phillip Bay Environmental Study

PEER REVIEWED PUBLICATIONS (numbered)

Google Scholar: h index = 54; i10 index = 108; Citations = 11,000

^aStudent supervised or co-supervised by WB (first authors only)

^bPost-doc supervised by WB (first authors only)

Submitted and/or in Revision:

Lund, S. P., E. Mortazavi, E. Platzman, C. Tems, W. Berelson and Y. Hamann (2019).
The last 1200 Years of Rainfall/Runoff Variability Along the Central Mexico
Pacific Coast Associated with the North American Monsoon, Submitted (5/19) to
Paleoceanography and Paleoclimatology.

Kemnitz^a, N., W. Berelson, D. Hammond, L. Morine, M. Figueroa, T. W. Lyons, S.
Scharf, N. Rollins, E. Petsios, S. Lemieux and T. Treude (2019). Evidence of
changes in sedimentation rate and sediment fabric in a low oxygen setting: Santa
Monica Basin, CA. Submitted (10/19) to Biogeosciences.

Dong, S., W. M. Berelson, J. F. Adkins, N. E. Rollins, J. D. Naviaux, S. Pirbadian, M. Y.
El-Naggar and H. H. Teng (2019). An atomic force microscopy study of calcite
dissolution in sea water and the dependence of dissolution rate on surface
properties. Submitted (11/19) to Geochim. Cosmochim. Acta.

Published (paper number):

Subhas^a, A., J. Adkins, S. Dong, N. Rollins and W. Berelson (2019) The carbonic
anhydrase activity of sinking and suspended particles in the North Pacific Ocean.
Limnology & Oceanography, doi: 10.1002/lno.11332 (146)

Naviaux^a, J. D., A. V. Subhas, S. Dong, N. E. Rollins, X. Liu, R. Byrne, W. M. Berelson
and J. F. Adkins (2019) Calcite dissolution rates in seawater: Lab vs. In situ
measurements and inhibition by organic matter. Marine Chemistry, 215,
doi.org/10.1016/j.marchem.2019.103684 (145)

Hou^a, Y., D. E. Hammond, W. M. Berelson, N. Kemnitz, J. F. Adkins and A. Lunstrum
(2019) Spatial patterns of benthic silica flux in the North Pacific reflect upper ocean
production. Deep Sea Research v. 148, 25-33, doi.org/10.1016/j.dsr.2019.04.013
(144)

Berelson, W. M., L. Morine, A. Sessions, N. Rollins, J. Fleming and J. Schwalbach
(2019) Santa Barbara Basin flood layers: Impact on sediment diagenesis. SEPM
Special Publication No. 110, p. 233-240. DOI: 10.2110/sepmsp.110.11 (143)

- Dong^a, S., W. M. Berelson, N. E. Rollins, A. V. Subhas, J. D. Naviaux, A. J. Celestian, X. Liu, N. Turaga, N. J. Kemnitz, R. H. Byrne and J. F. Adkins (2019) Aragonite dissolution kinetics and calcite/aragonite ratios in sinking and suspended particles in the N. Pacific. Earth Planetary Science Letters, 515, 1-12. doi.org/10.1016/j.epsl.2019.03.016 (142)
- Bryant^a, R. M., Jones, C., Morgan, R., Gomes, M., Berelson, W., Bradley, A., Fike, D. (2019) Sulfur isotope analysis of microcrystalline iron sulfides using SIMS imaging: Extracting local paleo-environmental information from modern and ancient sediments. Rapid Communications in Mass Spectrometry, 33: 491-502. DOI: 10.1002/rcm.8375 (141)
- Berelson, W. M., J. McManus, S. Severmann and N. Rollins (2019) Benthic Fluxes from Hypoxia-Influenced Gulf of Mexico Sediments: Impact on Bottom Water Acidification. Jour. Marine Chemistry. doi.org/10.1016/j.marchem.2019.01.004 (140)
- Yang, Shun-Chung, L. Welter, A. Kolatkar, J. Nieva, K. R. Waitman, K-F. Huang, W-H Liao, S. Takano, W. M. Berelson, A. J. West, P. Kuhn and S. John (2018) A new anion exchange purification method for Cu stable isotopes in blood samples. Analytical and Bioanalytical Chemistry, pp. 1-12. <https://doi.org/10.1007/s00216-018-1498-4> (139)
- Naviaux^a, J., A. V. Subhas, N. E. Rollins, S. Dong, W. M. Berelson, J. F. Adkins (2018) Temperature Dependence of Calcite Dissolution Kinetics in Seawater Geochimica Cosmochimica Acta, 246, 363-384. <https://doi.org/10.1016/j.gca.2018.11.037> (138).
- Stamps, B., Nunn, H., Petryshyn, V., Oremland, R., Miller, L., Rosen, M., Bauer, K., Thompson, K., Tookmanian, E., Waldeck, A., Lloyd, S., Johnson, H., Stevenson, B., Berelson, W., Corsetti, F. and Spear, J. (2018) The Metabolic Capability and Phylogenetic Diversity of Mono Lake During a Bloom of the Eukaryotic Phototroph *Picocystis* strain ML, Applied and Environmental Microbiology <https://doi.org/10.1128/AEM.01171-18>. (137).
- Monteverde^a, D., J. Sylvan, C. Suffridge, J. Baronas, E. Fichot, J. Fuhrman, W. Berelson, S. Sanudo-Wilhelmy (2018). Distribution of extracellular flavins in a coastal marine basin and their relationship to redox gradients and microbial community members. Envir. Science and Technology, doi: 10.1021/acs.est.8b02822 (136).
- Subhas^a, A. V., N. E. Rollins, W. M. Berelson, J. Erez, P. Ziveri, G. Langer and J. F. Adkins (2018) The dissolution behavior of biogenic calcites in seawater and a possible role for magnesium and organic carbon (2018) Marine Chemistry, 205, 100-112. <https://doi.org/10.1016/j.marchem.2018.08.001> (135)

- Lund, S., E. Mortazavi, L. Chong, E. Platzman and W. Berelson (2018) Holocene sedimentation on the distal Amazon Fan/Demerara Abyssal Plain. Marine Geology, 404, 147-157. <https://doi.org/10.1016/j.margeo.2018.06.015> (134)
- Dong^a, S., A. Subhas, N. Rollins, J. Naviaux, J. Adkins and W. Berelson (2018) A Kinetic Pressure Effect on Calcite Dissolution in Seawater, Geochimica Cosmochimica Acta, 238, 411-423. (133)
- Chong^a, L., W. Berelson, J. McManus and N. Rollins (2018) Meter-scale diagenesis of organic matter buried within deep-sea sediments throughout the Amazon River plume region. Frontiers in Marine Science. doi:10.3389/fmars.2018.00250 (132)
- Wilmeth^a, D. T., H. A. Johnson, B. W. Stamps, W. M. Berelson, B. S. Stevenson, H. S. Nunn, S. L. Grim, M. L. Dillon, O. Paradis, F. A. Corsetti and J. R. Spear (2018) Environmental and biological influences on carbonate precipitation within hot spring microbial mats in Little Hot Creek, CA. Frontiers in Microbiology, doi: 10.3389/fmicb.2018.01464 (131)
- Masterson^a, A., M. Alperin, W. Berelson and D. Johnston. (2018) A multiple sulfur isotope diagenetic model for anoxic sediments of the California-Mexico margin: Alfonso Basin. American Journal of Science 318, 459-490. DOI 10.2475/05.2018.02 (130)
- Van de Velde, S., V. Van Lancker, S. Hidalgo-Martinez, W. Berelson, F. J. R. Meysman (2018) Anthropogenic disturbance keeps the seafloor biogeochemistry in a transient state. Nature, Scientific Reports, 8:5582; DOI:10.1038/s41598-018-23925-y (129)
- Lund, S., M. Schwartz, W. Berelson, E. Platzman, R. Poulson and G. Acton. (2017) Environmental factors controlling the distribution of magnetic-mineral forming bacteria in deep sea sediments. J. Mar. Microbiology, v. 1, 11-19. (128)
- Bradley^a, J. A., L. K. Daille, C. B. Trivedi, C. L. Bojanowski, B. W. Stamps, B. S. Stevenson, H. S. Nunn, H. A. Johnson, S. J. Loyd, W. M. Berelson, F. A Corsetti and J. R. Spear (2017) Carbonate-rich dendrolitic cones: insights into a modern analog for incipient microbialite formation, Little Hot Creek, Long Valley Caldera, CA. npj Biofilms and Microbiomes, doi:10.1038/s41522-017-0041-2 (127)
- Yager^a, J. A., A. J. West, F. A. Corsetti, W. M. Berelson, N. E. Rollins, S. Rosas and D. J. Bottjer (2017) Duration and decoupling of carbon isotope excursions during the end-Triassic mass extinction and Central Atlantic Magmatic Province emplacement. Earth Planet. Sci. Letters, 473, 227-236 (<http://dx.doi.org/10.1016/j.epsl.2017.05.031>) (126)
- Subhas^a, A. V., J. F. Adkins, N. E. Rollins, J. Naviaux, J. Erez and W. M. Berelson (2017) Catalysis and chemical mechanisms of calcite dissolution in seawater. PNAS, 114, 8175-8180. www.pnas.org/cgi/doi/10.1073/pnas.1703604114 (125)

- Homoky, W. B., T. Weber, W. M. Berelson, T. M. Conway, G. M. Henderson, M. van Hulten, C. Jeandel, S. Severmann and A. Tagliabue. (2016) Quantifying trace element and isotope fluxes at the ocean-sediment boundary: a review. Philosophical Transactions A, doi:10.1098/rsta.2016.0246 (124)
- Tems^a, C. E., W. M. Berelson, R. Thunell, E. Tappa, X. Xu, D. Khider, S. Lund and O. Gonzalez-Yajimovich (2016) Decadal to centennial fluctuations in the intensity of the eastern tropical north Pacific oxygen minimum zone during the last 1200 years. Paleoceanography, 31, doi:10.1002/2025PA002904 (123)
- Haskell^a, W. Z, M. Prokopenko, D. E. Hammond, R. Stanley, W. Berelson, J. Baronas, J. C. Fleming and L. Aluwihare (2016) An organic carbon budget for coastal southern California determined by estimates of vertical nutrient flux, net community production and export. Deep Sea Res., v. 116, 49-76 (122)
- Chong^a, L., W. Berelson, D. E. Hammond, M. Q. Fleisher, R. F. Anderson, N. E. Rollins and S. Lund (2016) Biogenic sedimentation and geochemical properties of deep-sea sediments of the Demerara Slope/Abyssal Plain: Influence of the Amazon River Plume. Marine Geology, 379, 124-139 (121).
- Feng, X, S. Feakins, Z. Liu, C. Ponton, R. Wang, E. Karkabi, V. Galy, W. Berelson, A. Nottingham, P. Meir and A. J. West (2016) Source to sink: Evolution of lignin composition in the Madre de Dios River system with connection to the Amazon basin and offshore. J. G. R. Biogeosciences, 121, doi:10.1002/2016JG003323. (120)
- Thibodeau, A. M., K. Ritterbush, J. A. Yager, A. J. West, Y. Ibarra, D. J. Bottjer, W. M. Berelson, B. A. Bergquist and F. A. Corsetti (2016) Mercury anomalies and the timing of biotic recovery following the end-Triassic mass extinction. Nature Communications, DOI: 10.1038/ncomms11147 (119)
- Knapp, A., K. Casciotti, W. M. Berelson, M. Prokopenko and D. Capone (2016) Low rates of nitrogen fixation in eastern tropical South Pacific surface waters. PNAS, www.pnas.org/cgi/doi/1073/pnas.1515641113 (118)
- Baronas^a, J., D. Hammond, W. Berelson, J. McManus and S. Severmann (2016) Germanium-silicon fractionation in a river-influenced continental margin: The Northern Gulf of Mexico, Geochim. Cosmochim. Acta 178, 124-142. (117)
- Petryshyn, V. A., F. A. Corsetti, C.M. Frantz, S. P. Lund and W. M. Berelson (2016) Magnetic susceptibility as a biosignature in stromatolites. Earth Planet. Sci. Letters, 437, 66-75. (116)
- Loyd, S. and W. Berelson (2016) The modern record of ‘concretionary’ carbonate: Reassessing a discrepancy between modern sediments and the geologic record. Chemical Geology (420), 77-87 (115).

- Corsetti, F.A., Ritterbush, K.A., Bottjer, D.J., Greene, S.E., Ibarra, Y., Yager^a, J.A., West, A.J., Berelson, W.M., Rosas, S., Becker, T.W., Levine, N.M., Loyd, S.J., Martindale, R.C., Petryshyn, V.A., Carroll^a, N.R., Petsios^a, E., Piazza^a, O., Pietsch, C., Stellmann^a, J.L., Thompson^a, J.R., Washington^a, K.A., and Wilmeth^a, D.T. (2015). Investigating the paleoecological consequences of supercontinent breakup: Sponges clean up in the Early Jurassic. The Sedimentary Record, v. 13, no. 2, p. 4-10. (114)
- Ritterbush, K.A., Y. Ibarra, D. J. Bottjer, F. A. Corsetti, S. Rosas, A. J. West, W. M. Berelson and J. A. Yager (2015) Marine ecological state-shifts following the Triassic-Jurassic mass extinction. In: Earth-Life Transitions: Paleobiology in the Context of Earth System Evolution. Paleontology Society, v. 21, pp 121-135 (113)
- Subhas^a, A. V., N. E. Rollins, W. M. Berelson, S. Dong^a, J. Erez and J. F. Adkins (2015) Novel determination of the dissolution kinetics of inorganic calcite in seawater. Geochimica Cosmochimica Acta, 170, 51-68. (112)
- Haskell III^a, W. Z., D. Kadko, D. E. Hammond, A. Knapp, M. Prokopenko, W. Berelson and D. Capone (2015) Upwelling velocity and eddy diffusivity from ⁷Be measurements used to compare vertical nutrient flux to export POC flux in the Eastern Tropical South Pacific. Marine Chemistry, 168, 140. (111)
- Monteverde^a, D. R., L. Gomez-Consarnau, L. Cutter, L. Chong, W. Berelson and S. A. Sanudo-Wilhelmy (2015) Vitamin B1 in marine sediments: pore water concentration gradient drives benthic flux with potential biological implications. Frontiers in Microbiology, doi: 10.3389/fmicb.2015.00434, Article 434 (110)
- Yeung^b, L, W. M. Berelson, D. E. Hammond, M. G. Prokopenko, C. Wolfe and N. Rollins (2015) Air-sea exchange in the Eastern Tropical South Pacific: Evaluation of wind speed parameterizations for biogeochemical applications using upper-ocean radon profiles, Deep-Sea Res., 99, 35-45. (109)
- Berelson, W. M., W. Z. Haskell^a III, M. Prokopenko, A. Knapp, D. Hammond, N. Rollins and D. Capone (2015). Biogenic particle flux and benthic remineralization in the Eastern Tropical South Pacific. Deep-Sea Research, 99, 23-34. (108)
- Tems^a, C., W. Berelson and M. Prokopenko (2014) Particulate $\delta^{15}\text{N}$ in laminated sediments provide a proxy for mixing between the California Undercurrent and the California Current: A proof of concept. GRL, 10.1002/2014GL061993 (107)
- Johnston, D., B. Gill, A. Masterson, E. Beirne, K. Casciotti, W. Berelson (2014) Quantifying the cryptic marine sulphur cycle. Nature, 513, 530-533. (106).
- Deutsch, C., W. Berelson, R. Thunell, T. Weber, C. Tems, J. McManus, J. Crusius, T. Ito, T. Baumgartner, V. Ferreira, J. Mey and A. van Geen (2014) Centennial changes in North Pacific anoxia linked to tropical trade winds. Science, 345, 665; DOI: 10.1126/science.1252332 (105).

- Townsend-Small, A., M. Prokopenko and W. Berelson (2014) Nitrous oxide in the water column and sediments of the oxygen minimum zone, Eastern Tropical North Pacific, Southern California and Northern Mexico. JGR-Oceans, 119, doi:10.1002/2013JC009580 (104).
- Frantz^a, C. M., V. A. Petryshyn, P. Marengo, A. Tripathi, W. M. Berelson, F. A. Corsetti (2014) Dramatic local environmental change during the Early Eocene climatic optimum detected using high resolution chemical analyses of Green River Formation stromatolites. Paleo, Paleo., 405, 1-15. (103)
- Goes, J. I., H. do Rosario Gomes, A. M. Chekalyuk, E. J. Carpenter, J. P. Montoya, V. J. Coles, P. L. Yager, W. M. Berelson, D. G. Capone, R. A. Foster, D. K. Steinberg, A. Subramaniam, M. A. Hafez (2014) Influence of the Amazon River Discharge on the biogeography of phytoplankton communities in the western tropical North Atlantic. Progress in Oceanography, 120, 29-40. (102)
- Chong^a, L., W. M. Berelson, J. McManus, D. E. Hammond, N. E. Rollins and P. L. Yager (2013) Biogenic matter export influenced by the Amazon River plume: Patterns of remineralization in deep-sea sediments. Deep-Sea Research, 85, 124-137. (101)
- Prokopenko, M. G., M. Hirst, L. De Brabandere, D.J. Lawrence, W.M. Berelson, J. Granger, B.X. Chang, S. Dawson, E.J. Crane, L. Chong, B. Thamdrup, A. Townsend-Small, D.M. Sigman. (2013) *Thioploca*/anammox consortia drive nitrogen losses in anoxic marine sediments. Nature, v. 500, 194-198 (100)
- Riedel^a, T., W. Berelson, K. Nealson, S. Finkel (2013) Oxygen consumption rates of bacteria under nutrient limiting conditions. Applied and Environmental Microbiology, 79, 4921-4931. (99)
- Haskell^a, W. W. M. Berelson, D. E. Hammond, D. Capone (2013) Particle sinking dynamics and POC fluxes in the Eastern Tropical South Pacific based on 234-Th budgets and sediment trap deployments Deep Sea Research I, 81, 1-13. (98)
- Berelson, W. M., J. McManus, S. Severmann, C. E. Reimers (2013) Benthic flux of oxygen and nutrients from Oregon/California shelf sediments. Continental Shelf Research, 55, 66-75. (97)
- Greene^a, S. E., D. J. Bottjer, F. A. Corsetti, W. M. Berelson and J-P. Zonneveld (2012) A subseafloor carbonate factory across the Triassic-Jurassic transition. Geology, 40, 1043-1046. (96)
- Sanudo-Wilhelmy, S. L. Cutter, R. Durazo, E. Smail, L. Gomez-Consarnau, E. A. Webb, M. Prokopenko, W. M. Berelson and D. M. Karl. (2012) Multiple B-vitamin depletion in large areas of the coastal ocean. PNAS 109 (35), 13888-13889. (95)

- Yeung^b, L., W. M. Berelson, E. D. Young, M. G. Prokopenko, N. Rollins, V. J. Coles, J. P. Montoya, E. J. Carpenter, D. K. Steinberg, R. A. Foster, D. G. Capone and P. L. Yager. (2012) Impact of diatom-diazotroph associations on carbon export in the Amazon River plume. Geophys. Res. Letters, 39, L18609
doi:10.1029/2012GL053356. (94)
- Petryshyn^a, V. A., F. A. Corsetti, W. M. Berelson, W. Beaumont and S. P. Lund (2012) Stromatolite lamination frequency, Walker Lake, Nevada: Implications for stromatolites as biosignatures. Geology, 40, 499-502. (93)
- McManus, J., W. Berelson, S. Severmann, K. S. Johnson, D. E. Hammond, M. Roy and K. H. Coale (2012). Benthic manganese fluxes along the Oregon-California continental shelf and slope. Continental Shelf Research, 43, 71-85. (92)
- Mata^a, S. A., C. L. Harwood, F. A. Corsetti, N. J. Stork, K. Eilers, W. M. Berelson and J. R. Spear. (2012) Influence of gas production and filament orientation on stromatolite microfabric. Palaios, 27, 206-219. (91)—Winner Outstanding Paper 2012.
- Greene^a, S. E., R. C. Martindale^a, K. A. Ritterbush^a, D. J. Bottjer, F. A. Corsetti and W. Berelson (2012) Recognising ocean acidification in deep time: An evaluation of the evidence for acidification across the Triassic-Jurassic boundary. Earth Science Reviews, 113, 72-93. (90)
- Homoky^a, W. B., S. Severmann, J. McManus, W. Berelson, T. Riedel, P. Stratham, R. A. Mills (2012) Dissolved oxygen and suspended particles regulate the benthic flux of iron from continental margin sediments. Marine Chemistry 134-135, 59-70. (89)
- Pepe-Ranney^a, C., W. Berelson, F. Corsetti, M. Treants and J. Spear (2012) Cyanobacterial Construction of Hot Spring Siliceous Stromatolites in Yellowstone National Park. Environmental Microbiology 14(5), 1182-1197. (88)
- Loyd^a, S., W. M. Berelson, T. Lyons, D. E. Hammond and F. A. Corsetti, (2012) Constraining pathways of microbial mediation for carbonate concretions of the Miocene Monterey Formation using carbonate-associated sulfate. Geochimica Cosmochimica Acta, Vol 78, 77-98. (87)
- Chong^a, L. E., M. G. Prokopenko, W. M. Berelson, A. Townsend Small and J. McManus (2012) Nitrogen cycling within Suboxic and Anoxic Marine Sediments from the Continental Margin of Western North America. Marine Chemistry, Vols. 128-129, 13-25. (86)
- Prokopenko, M. G., D. M. Sigman, W. Berelson, D. E. Hammond, B. Barnett, L. Chong and A. Townsend-Small (2011) Denitrification in anoxic sediments supported by biological nitrate transport, Geochimica Cosmochimica Acta, 75, 7180-7199. (85)

- Berelson, W., F. A. Corsetti, C. Pepe-Ranney, D. E. Hammond, W. Beaumont and J. Spear (2011). Hot spring siliceous stromatolites from Yellowstone National Park: Assessing growth rate and laminae formation. Geobiology, 9, 411-424. (84)
- Berelson, W. (2011) The role of marine biota in the biogeochemical and geological cycles of carbon. (Chapter In: *The role of marine biota in biogeochemical cycles*, pp. 21-37, C. Duarte, ed., Fundacion BBVA) (83).
- Meister, P., C. Reyes, W. Beaumont, M. Rincon, L. Collins, W. Berelson, L. Stott, F. Corsetti and K. Neelson (2011) Calcium and magnesium-limited dolomite precipitation at Deep Springs Lake, CA. Sedimentology doi: 10.1111/j.1365-3091.2011.01240. (82)
- Collins^a, L. E., W. M. Berelson, D. E. Hammond, A. Knapp, R. Schwartz and D. Capone (2010) Particle fluxes in San Pedro Basin, California: A four-year record of sedimentation and physical forcing. Deep Sea Research, 58, 898-914 (81).
- Lund, S., E. Platzman, N. Thouveny, G. Camoin, F. Corsetti and W. Berelson (2010) Biological control of paleomagnetic remanence acquisition in carbonate framework rocks of the Tahiti coral reef. Earth Planetary Science Letters, doi:10.1016/j.epsl.2010.07.010 (80)
- Severmann, S., J. McManus, W. Berelson and D. E. Hammond (2010) The continental shelf benthic iron flux and its isotope composition. Geochim. Cosmochim. Acta, 74, 3984-4004 (79)
- Salas^a, E. C., W. M. Berelson, D. E. Hammond, A. R. Kampf and K. H. Neelson (2010) The impact of bacterial strain on the products of dissimilatory iron reduction Geochimica Cosmochimica Acta, 74, 574-583. (78)
- Salas^a, E. C., W. M. Berelson, D. E. Hammond, A. R. Kampf and K. H. Neelson (2009) The influence of carbon source on the products of dissimilatory iron reduction. Geomicrobiology Journal, 26, 451-462. (77)
- Johnson, K. S., Berelson, W. M., Boss, E. S., Chase, Z., Claustre, H., Emerson, S. R., Gruber, N., Kortzinger, A., Perry, M. J. and Riser, S. C. (2009), Observing biogeochemical cycles at global scales with profiling floats and gliders: prospects for a global array, Oceanography Magazine, 22, 216-225. (76)
- Poulson Brucker, R. L., J. McManus, S. Severmann, and W. M. Berelson (2009), Molybdenum behavior during early diagenesis: Insights from Mo isotopes, Geochem. Geophys. Geosyst., 10, Q06010, doi:10.1029/2008GC002 (75)
- Sekula-Wood, E., A. Schnetzer, C. R. Benitez-Nelson, C. Anderson, W. Berelson, J. Burns, D. Caron, J. Ferry, E. Fitzpatrick, B. Jones, P. E. Miller, S. Morton and R. Thunell (2009) The Toxin Express: Rapid downward transport of the neurotoxin domoic acid in coastal waters Nature GeoSciences, DOI:10.1038/NGEO472 (74)

- Nealson, K. and W. Berelson (2009) Sedimentary Habitats, Encyclopedia of Microbiology, (M. Schaechter, Editor), pp. 350-360, Oxford: Elsevier. (73)
- Harrison, B. K., H. Zhang, W. Berelson and V. Orphan (2009) Variations in archaeal and bacterial diversity associated with the sulfate-methane transition zone in continental margin sediments (Santa Barbara Basin, CA), Applied and Environmental Microbiology, doi:10.1128/AEM.01812-0 (72)
- Cheng, Tao, D. E. Hammond, W. M. Berelson, J. G. Hering and S. Dixit (2009) Dissolution kinetics of biogenic silica collected from the water column and sediments of three southern California borderland basins, Marine Chemistry 113, 41-49. (71)
- Berelson, W., F. Corsetti, B. Johnson, T. Vo and C. Der. (2008) Carbonate Associated Sulfate as a proxy for lake level fluctuations: A proof of concept for Walker Lake, Nevada. Journal of Paleolimnology, 10.1007/s10933-008-9245-z (70)
- Colbert, S. L., D. E. Hammond and W. M. Berelson (2008). Radon-222 budget in Catalina Harbor, California: 1. Water mixing rates. Limnol. Oceanog. 53: 651-658. (69)
- Colbert, S. L., W. M. Berelson and D. E. Hammond (2008). Radon-222 budget in Catalina Harbor, California: 2. Flow dynamics and residence time in a tidal beach. Limnol. Oceanog. 53: 659-665. (68)
- Berelson, W. M., W. M. Balch, R. Najjar, R. Feely, C. Sabine and K. Lee (2007). Relating estimates of CaCO₃ production, export, and dissolution in the water column to measurements of CaCO₃ rain into sediment traps and dissolution on the sea floor: A revised global carbonate budget. Global Biogeochemical Cycles, v. 21, GB1024, doi:10.1029/2006GB002803 (67).
- Schnitzer, A., P. Miller, R. A. Schaffner, B. Stauffer, B. Jones, S. B. Weisberg, P. N. DiGiacomo, W. Berelson and D. A. Caron (2006) Blooms of Pseudo-Nitzschia and domoic acid in the San Pedro Channel and Los Angeles Harbor areas of the Southern California Bight, 2003-2004, Harmful Algae, v. 6, 372-387. (66)
- McManus, J., W. M. Berelson, S. Severman, R. L. Poulson, D. E. Hammond, G. P. Klinkhammer and C. Holm (2006) Molybdenum and uranium geochemistry in continental margin sediments: Paleoproxy potential. Geochim. Cosmochim. Acta:doi:10.1016/j.gca.2006.06.1564 (65)
- Poulson, R. L., C. Siebert, J. McManus and W. Berelson (2006) Authigenic molybdenum isotope signatures in marine sediments Geology, v. 34, 617-620 (64)
- Siebert, C., J. McManus, A. Bice, R. Poulson, and W. M. Berelson (2006) Molybdenum isotope signatures in continental margin marine sediments. Earth Planetary Science Letters, 241, 723-733. (63)

- Prokopenko^a, M.G., Hammond, D.E., Berelson, W.M., Bernhard, J.M., Stott, L., Douglas, R. (2006) Nitrogen cycling in the sediments of Santa Barbara Basin and Eastern Subtropical North Pacific – Isotopic evidence for chemosymbiosis between two lithotrophs: riding on a glider, Earth Planetary Sci. Lett., 242 (1-2), pp. 186-204. (62)
- McManus, J., W. M. Berelson, G.P. Klinkhammer, D. E. Hammond and C. Holm (2005). Authigenic uranium: Relationship to oxygen penetration depth and organic carbon rain. Geochim. Cosmochim. Acta, 69, 95-108 (61)
- Berelson, W. M., Prokopenko, M., Graham, A., Sansone, F. J., McManus, J., Bernhard, J. M. (2005) Anaerobic diagenesis of silica and carbon in continental margin sediments: Discrete zones of TCO₂ production. Geochim. Cosmochim. Acta, 69, 4611-4629. (60)
- Lehmann, M., D. Sigman and W. Berelson (2004) Coupling the ¹⁵N/¹⁴N and ¹⁸O/¹⁶O of nitrate as a constraint on benthic nitrogen cycling. Marine Chemistry, v. 88, 1-20. (59)
- Hammond, D. E., J. McManus, W. Berelson (2004) Oceanic Germanium:Silicon ratios: evaluation of the potential overprint of temperature on weathering signals . Paleoceanography 19, PA2016, doi: 10.1029/2003PA000940 (58)
- Elrod, V. A., W. M. Berelson, K. H. Coale and K. S. Johnson (2004) The flux of iron from continental shelf sediments: A missing source for global budgets. Geophysical Research Letters, v. 31, L12307, doi:10.1029/2004GK020216, 2004 (57)
- Hammond, D. E., K. M. Cummins, J. McManus, W. M. Berelson, G. Smith, and F. Spagnoli. (2004) Methods for measuring benthic nutrient flux on the California Margin: Comparing shipboard core incubations to in situ lander results. Limnol. Oceanogr. Methods 2; 146-149 (56)
- Feely, R., C. Sabine, K. Lee, W. Berelson, J. Kleypas, V. Fabry and F. Millero (2004) Impact of anthropogenic CO₂ on the CaCO₃ system in the oceans. Science, 305, 362-366. (55)
- Sansone, F. J., A.W. Graham, and W. M. Berelson (2004) Methane along the western Mexican margin. Limnol. Oceanogr. 49: 2242-2255 (54).
- Holsten^a, J., L. Stott and W. Berelson (2004) Reconstructing benthic carbon oxidation rates using ¹³C of benthic foraminifera. Marine Micropaleontology , 53, 117-132 (53)
- Berelson, W. and L. Stott (2003) Productivity and organic carbon rain to the California margin sea floor: Modern and paleoceanographic perspectives. Paleoceanography, v. 18, 1002, doi:10.1029/2001PA000672 2003 (52)
- Berelson, W., J. McManus, K. Coale, K. Johnson, D. Burdige, T. Kilgore, D. Colodner, F. Chavez, R. Kudela and J. Boucher (2003) A time-series of benthic flux measurements from Monterey Bay, CA. Continental Shelf Research, v. 23, 457-481. (51)

- Nealson, K. and W. Berelson (2003) Layered microbial communities and the search for life in the universe. Geomicrobiology Journal, v. 20, 451-462. (50)
- Kuwabara, J. S., P. F. Woods, W. M. Berelson, L. S. Balistrieri, J. L. Carter, B. R. Topping and S. V. Fend (2003) Importance of sediment-water interactions in Lake Coeur d'Alene, Idaho: Management implications. Environmental Management, v. 32 (3): 348-359 (49)
- McManus, J., D. E. Hammond, K. Cummins, G.P. Klinkhammer, and W. M. Berelson (2003) Diagenetic Ge-Si fractionation in continental margin environments: Further evidence for a non-opal Ge sink. Geochim. Cosmochim. Acta, 67, 4545-4557. (48)
- Berelson, W. M. (2003) A summer course in Geobiology: The introduction of an emerging field. EOS, v. 84, 459, 463. (47)
- Berelson, W. (2002) Biogenic particle settling rates increase with depth in the ocean. Deep-Sea Research II, v. 49, 237-251. (46)
- Berelson, W., K. Johnson, K. Coale and H-C. Li (2002) Organic matter diagenesis in the sediments of the San Pedro Shelf along a transect affected by sewage effluent. Continental Shelf Research, v. 22, 1101-1115. (45)
- Colbert, D., K. Coale, W. Berelson and K. Johnson (2001) Cadmium flux in LA/LB Harbors and at sites along the California continental margin. Estuarine, Coastal and Shelf Science, v. 63, 169-180. (44)
- Berelson, W. (2001) POC fluxes into the ocean interior: A comparison of 4 US-JGOFS regional studies. Oceanography, v. 14, 59-67. (43)
- Hammond, D. E., J. McManus, W. Berelson, C. Meredith, G. Klinkhammer and K. Coale (2000) Fractionation of Ge and Si in reducing sediments: The missing Ge sink and a possible mechanism to cause glacial/interglacial variations in oceanic Ge/Si. Geochim. Cosmochim. Acta, v. 64, 2453-2465. (42)
- Kuwabara, J., W. Berelson, L. Balistrieri, P. Woods, B. Topping, D. Steding and D. Krabbenhof (2000) Benthic flux of metals and nutrients into the water column of Lake Coeur d'Alene, Idaho: Report of an August, 1999 pilot study. USGS Water Resources Investigations Report 00-4132. (41)
- Stott, L., W. Berelson, D. Gorsline and R. Douglas (2000) Increased dissolved oxygen in Pacific intermediate waters due to lower rates of carbon oxidation in sediments. Nature, v. 407, 367-370. (40)
- McManus, J., W. Berelson, D. E. Hammond and G. P. Klinkhammer (1999) Barium cycling in the N. Pacific: Implications for the utility of Ba as a paleoproductivity and paleoalkalinity proxy. Paleoceanography, v. 14, 53-61. (39)

- Hammond, D. E., P. Giordani, W. Berelson, and R. Poletti (1999) Diagenesis of carbon and nutrients in sediments of the Northern Adriatic Sea. Marine Chemistry, v. 66, 53-79. (38)
- Burdige, D., W. Berelson, K. Coale, J. McManus and K. Johnson (1999) Fluxes of dissolved organic carbon from California continental margin sediments. Geochim. Cosmochim. Acta., v. 63, 1507-1515. (37)
- Berelson, W., T. Townsend, D. Heggie, P. Ford, A. Longmore, G. Skyring, T. Kilgore and G. Nicholson (1999) Modeling bioirrigation rates in sediments of Port Phillip Bay. Marine and Freshwater Research., v. 50, 573-579. (36)
- Nicholson, G., A. Longmore and W. Berelson (1999) Nutrient fluxes measured by two types of benthic chamber. Marine and Freshwater Research., v. 50, 567-572. (35)
- Heggie, D., G.W. Skyring, W. M. Berelson, A. R. Longmore and G. J. Nicholson (1999) Sediment-water interaction in Australian coastal environments: implications for water and sediment quality. AGSO Journal of Australian Geology and Geophysics, v. 17, 159-173. (34)
- Berelson, W., D. Heggie, A. Longmore, T. Kilgore, G. Nicholson and G. Skyring (1998) Benthic nutrient recycling in Port Phillip Bay, Australia. Estuarine, Coastal and Shelf Science, v. 46, 917-934. (33)
- McManus, J., W. Berelson, G. Klinkhammer, K. Johnson, K. Coale, R. Anderson, N. Kumar, D. Burdige, D. Hammond, H. Brumsack, D. McCorkle and A. Rushdi (1998) Geochemistry of barium in marine sediments: Implications for its use as a paleoproxy. Geochim. Cosmochim. Acta, v. 62, 3453-3473. (32)
- McManus, J., W. Berelson, K. Coale, K. Johnson and T. Kilgore (1997) Phosphorus regeneration in continental margin sediments. Geochim. Cosmochim. Acta, v. 61, 2891-2907. (31)
- Berelson, W., R. Anderson, J. Dymond, D. DeMaster, D. Hammond, R. Collier, S. Honjo, M. Leinen, J. McManus, R. Pope, C. Smith and M. Stephens (1997) Biogenic budgets of particle rain, benthic remineralization and sediment accumulation in the Equatorial Pacific. Deep-Sea Research, v. 44, 2251-2282. (30)
- Smith, C. R., W. Berelson, D. DeMaster, F. Dobbs, D. Hammond, D. Hoover, R. Pope and M. Stephens (1997) Latitudinal variations in benthic processes in the abyssal equatorial Pacific: control by biogenic particle flux. Deep-Sea Research, v. 44, 2295-2317. (29)
- Tengberg, A., R. DeBovee, P. Hall, W. Berelson and 26 others (1996) Benthic chamber and profile landers in oceanography-A review of design, technical solutions and functioning. Prog. Oceanog., v. 35, 253-294. (28)

- Hammond, D. E., J. McManus, W. Berelson, T. Kilgore and R. Pope (1996) Early diagenesis of organic carbon in the equatorial Pacific: Rates and kinetics. Deep-Sea Research, v. 43, 1365-1412. (27)
- Johnson, K. S., K. Coale, W. Berelson and R. M. Gordon (1996) On the formation of the manganese maximum in the oxygen minimum. Geochim. Cosmochim. Acta, v. 60, 1291-1299. (26)
- Berelson, W., J. McManus, K. Coale, K. Johnson, T. Kilgore, D. Burdige and C. Pilskaln (1996) Biogenic matter diagenesis on the sea floor: A comparison between two continental margin transects. Journal of Marine Research, v. 54, 731-762. (25)
- Pilskaln, C. H., J. B. Paduan, F. P. Chavez, R. Y. Anderson and W. Berelson (1996) Carbon export and regeneration in the coastal upwelling system of Monterey Bay, central California. Journal of Marine Research, v. 54, 1149-1178. (24)
- McManus^b, J., D. E. Hammond, W. Berelson, T. E. Kilgore, D. J. DeMaster, O. G. Ragueneau and R. W. Collier (1995) Early diagenesis of biogenic opal: Dissolution rates, kinetics, and paleoceanographic implications. Deep-Sea Research, v. 42, 871-903. (23)
- Berelson, W. M., D. E. Hammond, J. McManus and T. E. Kilgore (1994) Dissolution kinetics of calcium carbonate in Eq. Pac. Sediments. Global Biogeochem. Cycles, v. 8, 219-235. (22)
- McManus^b, J., W. Berelson, G. Klinkhammer, T. Kilgore and D. Hammond (1994) Remobilization of barium in continental margin sediments. Geochim. Cosmochim. Acta, v. 58, 4899-4907. (21)
- Giordani, P., D. E. Hammond, W. M. Berelson, R. Poletti, G. Montanari, A. Milandri, M. Frignani, L. Langone, M. Ravaioli and E. Rabbi (1992) Benthic fluxes and nutrient budgets for sediments in the Northern Adriatic Sea: Burial and recycling efficiencies. Science of the total environment (suppl.). pp. 251-269. (20)
- Johnson, K. S., W. M. Berelson, K. H. Coale, T. L. Coley, V. A. Elrod, W. R. Fairey, H. D. Iams, T. E. Kilgore, and J. L. Nowicki (1992) Manganese flux from continental margin sediments in a transect through the oxygen minimum. Science, v. 257, 1242-1245. (19)
- Ledwell, J. R., A. J. Watson, K. W. Doherty and W. M. Berelson (1991) Integrating samplers for the deep sea. Jour. of Geophys. Research, v. 96, 8727-8732. (18)
- Berelson, W. M. (1991) Recent flushing of two basins in the southern California borderland. Limnology & Oceanography, v. 36, 1150-1166. (17)
- Berelson, W. M. and K. Johnson (1991) Measurements of nutrient and metal fluxes from the seafloor in the area around the Whites Point Sewage Outfall, Los Angeles, CA. Seventh Symposium on Coastal and Ocean Management, Coastal Zone '91. (16)

- Hammond, D. E., Marton, R. A., W. M. Berelson and T-L. Ku (1990) Ra-228 distribution and mixing in San Pedro and San Nicolas Basins, California borderland. Jour. Geophys. Research, v. 95, 3321-3336. (15)
- Leslie, B. W., D. E. Hammond, W. M. Berelson and S. P. Lund (1990) Diagenesis in anoxic sediments from the continental California borderland and its influence on iron, sulfur and magnetite behavior. Jour. Geophys. Research, v. 95, 4453-4470. (14)
- Berelson, W. M., D. E. Hammond, D. O'Neill, X. M. Xu, C. Chin and J. Zukin (1990) Benthic fluxes and pore water studies from sediments of the central equatorial N. Pacific: Nutrient diagenesis. Geochim. Cosmochim. Acta, v. 54, 3001-3012. (13)
- Berelson, W. M., D. E. Hammond and G. Cutter (1990) In situ measurements of calcium carbonate dissolution in deep-sea sediments. Geochim. Cosmochim. Acta, 54, 3013-3020 (12)
- Berelson, W. M., D. E. Hammond and P. Giordani (1989) Effect of sea floor disturbance on benthic flux measurements in the continental margin off Southern California, Catalina Basin. Giornale di Geologia, v. 51, 143-150. (11)
- Johnson, K. S., P. S. Stout, W. M. Berelson and C. M. Sakamoto-Arnold (1988) Cobalt and copper distributions in the waters off Santa Monica Basin, California. Nature, v. 332, 527-530. (10)
- Berelson, W. M., D. E. Hammond and A. Eaton (1987) A technique for the rapid extraction of radon-222 from water samples and a case study. In: Radon in Groundwater, ed. B. Graves, National Water Well Association, 271-281. (9)
- Berelson, W. M., D. E. Hammond, K. L. Smith, R. A. Jahnke, A. H. Devol, K. R. Hinga, G. T. Rowe and F. Sayles (1987) In situ benthic flux measurement devices: bottom lander technology. *Invited contribution to* Marine Technology Society Journal, v. 21, 26-32. (8)
- Berelson, W. M., D. E. Hammond and K. S. Johnson (1987) Benthic fluxes and the cycling of biogenic silica and carbon in two southern California borderland basins. Geochimica et. Cosmochimica Acta, v. 51, 1345-1363. (7)
- Berelson, W. M., M. R. Buchholtz, D. E. Hammond and P. H. Santschi (1987) Radon fluxes measured with the MANOP Lander. Deep-Sea Research, v. 34, 1209-1228. (6)
- Berelson, W. M. and D. E. Hammond (1986) The calibration of a new free vehicle benthic flux chamber for use in the deep sea, Deep Sea Research, v. 33, 1439-1454. (5)
- Berelson, W. M. and S. D. Heron, Jr (1985) Correlations between Holocene flood tidal delta and barrier island inlet fill sequences: Back Sound-Shackleford Banks, North Carolina. Sedimentology, v. 32, 215-232. (4)

- Hammond, D. E., C. Fuller, D. Harmon, B. Hartman, M. Korosec, L. Miller, R. Rea, S. Warren, W. Berelson and S. W. Hager (1985) Benthic fluxes in San Francisco Bay. Hydrobiologia, v. 129, 69-90. (3)
- Heron, S. Duncan, Jr., T. F. Moslow, W. M. Berelson, J. R. Herbert, G. A. Steele, III, and K. R. Susman (1984) Holocene sedimentation of a wave-dominated barrier-island shoreline: Cape Lookout, North Carolina. Marine Geology, v. 60, 413-434. (2)
- Berelson, W. M., D. E. Hammond and C. Fuller (1982) Radon-222 as a tracer for mixing in the water column and benthic exchange in the southern California borderland. Earth and Planetary Science Letters, v. 61, 41-54. (1)

PROPOSALS (last 15 years only)

(proposals in **bold** active for 2015-present)

- Berelson, W. (NSF OCE 2019)** \$519,571—Collaborative research: How much does advection of seawater through shelf sands, both detrital and carbonate-rich, influence ocean carbonate chemistry?—Pending
- John, S., J. West, W. Berelson (Ming Hsieh Institute 2019)** \$80,000, The geochemistry of cancer: A new approach for research and diagnosis—1 year
- Corsetti, F., W. Berelson and others (NASA Astrobiology 2019)** \$994,274—Investigating a novel role for iron redox cycling in the lifification of microbial mats and the rise and fall of stromatolites in Earth history. 3-years.
- Berelson, W. (NSF OCE 2018)** \$668,000—Collaborative Research: New approaches to study calcium carbonate dissolution on the sea floor and its impact on paleo-proxy interpretations.—3 years.
- Berelson, W. and T. Truede (NOAA Sea Grant 2016)**--\$60,000—Expansion of oxygen minima in Santa Monica Basin—2 years
- Berelson, W. (NSF OCE 2015)**--\$588,609--CaCO₃ dissolution in the North Pacific Ocean: Comparison of lab and field rates with biogenic and abiogenic carbonates—3 years
- Berelson, W. (SCEC 2014)**--\$25,000—Investigation of the origin of grey layers in Santa Barbara Basin sediment cores—flood deposits or tsunamis?
- Berelson, W. and L. Yeung (NSF OCE 2014)**--\$49,262—Collaborative Research: Clumpy O₂ as a tracer for productivity and respiration—3 years.
- Corsetti, F. A. (Berelson, West, Bottjer, Levine, Becker) (NSF EAR 2013)--\$1,000,000--Earth-Life Transitions: Linked geochemical/biotic response to massive volcanic CO₂ injection during the Triassic-Jurassic mass extinction—4 years
- Berelson, W. and J. Adkins (OCE1220302, \$469,212)- Ocean Acidification - Collaborative Research: Measuring the kinetics of CaCO₃ dissolution in seawater

using novel isotope labeling, laboratory experiments, and in situ experiments—NSF OCE Funded, 3 years.

Berelson, W. (2010--NSF ANT1029878 \$367,596) Collaborative Research: Continental Shelf diagenesis II: The importance of increasing oceanic hypoxia to coastal iron supply and the ocean's iron isotope composition. Three years. NSF ANT Funded

Berelson, W. and Capone, D. (2009--OCE 0934073 \$912,517) Collaborative Research: ETBC: Amazon influence on the Atlantic: Carbon export from Nitrogen fixation by diatom symbioses (ANACONDAS). Three years. NSF OCE Funded

Berelson, W. and F. Corsetti (NASA Astrobiology, \$207,282) A community education and outreach activity: International GeoBiology Summer Course. Four years. NASA Astrobiology Funded

Berelson, W., D. Hammond, M. Prokopenko (2009--OCE 0961207 \$301,969) Collaborative Research: Applying O₂/Ar, Delta 17O and 222Rn methodologies to constrain organic carbon productivity in the upper ocean of the ETSP. Three years. NSF OCE Funded

Capone, D., W. Berelson and A. Knapp (2009--\$781,420) Determining N₂ fixation in N deficient waters of the Eastern Tropical South Pacific. Three years. NSF OCE0850801.

Berelson, W., T. Michaels and F. Corsetti (\$200,000 for one year starting 2007) International GeoBiology Summer Course - A Renewal—Matching Gift, Agouron Institute

Berelson, W. (P.I.) (\$380,379 for three years starting 2007) Collaborative research: Non-Local Bacterial Transport of Nitrate within Sediments Underlying Oxygen Deficient Zones: A New Twist in the N Cycle—time commitment of 15%/year—NSF OCE

Berelson, W. (P.I) and F. Corsetti (\$120,000 for one year starting 2007) International GeoBiology Summer Course - A Renewal—10%--NSF EAR

Berelson, W. (P.I.), F. Corsetti, T. Pottenbaum, E. Meng, K. Edwards and K. Nealson (\$20,000 starting 2007) Geobiological Imaging and Microfluidic Program at USC—5%--USC College

Berelson, W. (P.I.) (\$200,000 for 2 years starting 2006) Collaborative Research (OSU, USC, UCR): Continental Shelf Diagenesis: The Importance of Fresh Continental Material Degradation and Seasonal Diagenesis to Coastal Iron Supply—15%-- NSF OCE

Berelson, W. (P.I.) and F. Corsetti (2006)—USC undergraduate research program award, \$5,500 for undergraduates T. Vo and C. Der to work on research projects in my lab—USC College

Berelson, W. and T. Michaels (2002, 2003, 2004, 2005, 2006)-- Awarded 5 years of support (\$650,000/years 1-3; \$350,000 year 4 and \$200,000 year 5) International GeoBiology Summer Course—20%—Agouron Institute.

Berelson, W. (P.I.) and T. Michaels (\$354,693 for 2 years starting 2005). International GeoBiology Summer Course: Providing focus for an emerging field—20%--NSF GEO

Berelson, W. (P.I.) (\$59,631 for 3 years starting 2004)-- Simulating and Assessing the Carbon Cycle off the West Coast of North America—5%-- NASA Prime Award NNG04GJ78G, subcontract to UCLA grant.

Berelson, W. (P.I.) (\$164,938 for 2 years starting 2004) Collaborative Proposal: Anoxic sediment diagenesis at the sulfate-methane interface: Does a novel microbial syntrophy result in enhanced POC remineralization?—10% --NSF OCE/GEO

Berelson, W. (P.I.) (\$72,833 for one year, 2004) A study of benthic fluxes in Newport Bay, California—10%--SCCWRP

Prior to 2004, I was on the Research Faculty and had to raise 100% salary

Berelson, W. (P.I.) and D. Hammond (\$420,588 for 3 years starting 2002) Collaborative Research (USC/Caltech): Evaluation of Opal Dissolution Kinetics and Factors that may Regulate Opal Accumulation in Margin Sediments—20%--NSF OCE

Berelson, W. (P.I.) (\$179,645 for 3 years starting 2002) Collaborative Research: Production and dissolution of calcium carbonate in the global ocean: A synthesis and modeling project—20%--NSF OCE

Fink, W. (Caltech), Berelson, W. (co-I). and Neelson, K. (\$62,500 for 1.5 years starting 2002) Geochemical biosignatures for life detection derived from layered microbial interfaces—15%--Caltech Presidents Fund.

Berelson, W. (P.I.) (\$59,056 for 1 year starting 2001). New scales of measuring organic carbon diagenesis in marine sediments—20%--NSF-SGER-OCE

Stott, L, Berelson, W. (co-I) and Douglas, R. (\$424,531 for 3 years starting 2000). A study to determine what has controlled the spread of anoxia and laminated sediments in NE Pacific basins: Ventilation vs. carbon oxidation—20%-- NSF EAR

COMMUNITY SERVICE--WORKSHOPS, INVITED TALKS (last 12 years)

November 2019—External Committee Reviewer of Cal State University Long Beach, Geology Department

October 2019—Reviewed dossier of faculty considered for promotion to Associate Professor with Tenure.

October 2019—Invited participant: CO2 Urban Synthesis and Analysis workshop, Boston

April 2019—Invited Talk: WHOI, Woods Hole, MA

Jan. 2019—Invited participant and speaker, Ocean Alkalinization Workshop, Scripps Inst.

July 2018—Reviewed dossier of two faculty being considered for promotion to Assoc. Professor with Tenure at their institutions.

July 2017—Review of the dossiers of three faculty being considered by their schools for promotion to Assoc. Prof (2) and Full Prof. (1).

June 2017—Invited participant, Bioturbation Workshop, Lake Arrowhead, CA

April 2017—Invited Talk: Pomona College

October 2016—Invited Talks: Yongji University, Shanghai; Nanjing University, Nanjing

September 2016—Talk at Lithosphere Dynamics Seminar, USC

August 2016—Participant, Harvard Student PhD defense

February 2016—Invited speaker, Gordon Conference on Geobiology

December 2015—Invited participant, GEOTRACES workshop on Fluxes, Cambridge, UK

September 2015—Hosted a Webinar for Picarro on C isotope analysis methodology

June 2015—Invited Speaker, Ocean Acidification Workshop, NSF sponsored, at WHOI

March 2015—Invited speaker, UCLA Cheminar

August 2014—Invited speaker, Symposium, PUCP, Peru

November 2013—Invited speaker, Caltech

August 2013—Team Member, Biogeochemistry Theme, Goldschmidt Conf. 2014

August 2013—Invited speaker, Gordon Conference on Chemical Oceanography

June/July 2013—Instructor, International GeoBiology Summer Course

November 2012—Chemical Oceanography, NSF panelist

October 2012—Invited Talks at CSU Fullerton and Glendale Community College

June/July 2012—Instructor, International GeoBiology Summer Course

April 2012—Invited Talk at ETH-Zurich

February 2012—Ocean Sciences/ASLO meeting, Salt Lake City, Abstracts presented

December 2011—Invited participant, Gordon and Betty Moore Foundation meeting of directors of summer courses

February 2011—Invited speaker, Los Angeles Basin Geological Society

April 2010—Invited speaker, UCLA

April 2010—Invited speaker, Caltech

January 2010—Invited speaker, Caltech

August 2009—Invited participant, NSF-sponsored planning workshop on Soledad Basin, Ensenada, Mexico

March 2009—Invited speaker, US Ocean Carbon and Biogeochemistry Program (OCB) Scoping Workshop: ‘Observing Biogeochemical Cycles at Global Scales with Profiling Floats and Gliders’, author of final report

January 2009—Invited participant Ocean Acidification Workshop, Consortium for Ocean Leadership, author final report

December 2008—AGU meeting, San Francisco, author on 7 abstracts

October 2008—Symposium organizer, SACNAS meeting, Salt Lake City

October 2008—Invited speaker at FBBVA sponsored symposium, Madrid, Spain

April 2008—Invited talk, CalState LA

March 2008—ASLO meeting, Orlando (1 talk, 1 student poster)

February 2008—Deep Biosphere Meeting, DEBI-I

October 2007—Organizer of Geobiology symposium at SACNAS conference, Kansas City

October 2007—Invited participant, Ocean Acidification Workshop, NSF sponsored

April 2007—co-chair, SEPM/AAPG session, Geobiology: microbes, rocks and hydrocarbons

February 2007—ASLO meeting, Santa Fe (1 talk, 2 student talks).
 November 2006—Invited talk at Scripps Institution of Oceanography
 February 2006—AGU/ASLO meeting, Hawaii (1 talk, 1 student talk)
 January 2006, May 2006, Sept. 2006, Nov. 2006—NAS invited member, Committee on the
 Astrobiology Strategy for the Exploration of Mars (report written)
 December 2005—Invited talk, UCLA
 December 2005—AGU meeting, San Francisco
 August 2005—Participant in Gordon Conference on Chemical Oceanography
 August 2005—Invited to be a speaker at Goldschmidt Conference but declined due to
 scheduling conflict
 July 2005—Invited speaker at AGU Chapman Conference on Organic Carbon and Carbonate
 Sedimentation
 April 2005—NOAA/USGS sponsored conference on the Impact of CO₂ on Marine Life
 December 2004—AGU poster presentation at San Francisco meeting
 November 2004—Invited talk, Caltech
 July 2004—NSF Biogeosciences advisory committee meeting
 May 2004--NSF—Chemical Oceanography Panel
 May 2003— Gulf of California Conference, La Paz, Mexico
 April 2003— NSF sponsored, GEOSECS II meeting invitee, Toulouse, France
 February 2003— Scripps meeting of SCCOOS

SERVICE TO USC

Member, UCAR Committee, 2019-
 Reviewer of Rabenheimer Nominees; 2019
 Reviewer of Discovery Scholars; 2019
 Member Wrigley Institute Faculty Advisory Board, 2019-
 Meet with Wrigley Institute Board, Oct. 2018
 Participant, Arctic Conference, April 2018
 Chair, Physical and Biological Sciences GE committee
 Invited Speaker—Know Tomorrow, Climate change awareness event (10/15)
 Panelist—Beyond the PhD Conference (3/15)
 Developed a Minor and a new undergraduate class (GEOL 351) in Climate Systems
 Co-Chair Dornsife Sustainability Task Force (2013-2016)
 Chair, Physical Sciences GE committee
 Chairman, Earth Sciences Department (Aug. 2012—Aug. 2018)
 Member, GE reformulation committee
 Faculty Advisor USC SACNAS
 Faculty showcase lecture (June 2012)
 Member, 3rd Year Review Committee, Julien Emile-Geay and Sarah Feakins
 Co-organizer of College 2020 Workshops on Climate Change/Impacts on S. California
 Oceans
 Member, General Education Review Committee, Provost appointed (2012)
 Faculty Founder and Advisor, Young Researchers Program (2009-)
 Faculty Showcase, summer orientation lecture, June 2011
 Chair, College Math/Sciences Tenure and Promotions committee (2011-2012)

Center for Excellence in Research, “Workshop for Post-docs”, Nov. 2010
 Faculty Showcase, summer orientation lecture, Summer 2010
 Amgen Foundation to recruit and train minority and female students to USC
 Planning for the Future of the University-Invited participant
 Chair, Committee to appoint a Chair of Earth Sciences (2008)
 Member, College Math/Sciences Tenure and Promotions committee (2008-)
 Chair, search committee for Isotope Geochemistry position, 2008-2009 (J. West)
 Member search committee for Climate Dynamics position, 2007-2008 (J. Emile-Geay)
 Appointed to WiSE (Women in Science and Engineering) review panel, 2007-2009
 Faculty Showcase, summer orientation lecture, Summer 2007
 Welcome-Week Micro-Seminar (for incoming freshmen), Summer 2006, 2007
 Member of search committees for Geobiology position, 2004-2007 (S. Feakins)
 Delivered Lecture to Alternative Spring Break undergraduate group
 Liaison between MEB/WIES and Earth Sciences Department, helped recruit Cluster Hire candidates, 2005-2006
 Served on Earth Sciences search committee for Ocean Modeler hire (C. Paulson)
 Presentation to Wrigley Institute Board of Directors
 Served on Earth Sciences Department Executive and Merit Review Committees
 Served as judge in Ocean Bowl, quiz competition for local high school students sponsored by USC
 Panelist for Provost-sponsored discussion of Research Faculty at USC
 Represented Earth Sciences Department at Catalina Wrigley Labs re-dedication

STUDENT SUPPORT/ADVISEMENT

Post Docs:

L. Yeung (Caltech)—Feb. 2010-Feb. 2011 (Asst. Prof. Rice University)
A. Knapp (Princeton)—Nov. 2007-Dec. 2008 (co-advised with D. Capone; Asst. Prof., Florida State University)
M. Prokopenko (Princeton)—Nov. 2007-2010 (Asst. Adj. Res. Prof., USC; Instructor Pomona College)
J. McManus (OSU)—supported for 3 years—Vice President, Bigelow Labs
T. Kilgore (UCLA)—supported for 4 years—working in private sector

Graduate Students:

(**bold**=those I’ve had a major role in their development)

A. Godbold (PhD exam committee, 2019)
 W. Hua (MS committee, 2019)
 C. Johnson (PhD exam committee, 2018)
J. Pittman (PhD advisor)
A. Lunstrum (PhD advisor)
 Scott Perl (PhD exam committee, 2017)

K. Larina (PhD exam committee, 2017)
 K. Bolster (PhD exam committee, 2017)
 J. Stellman (PhD exam committee, 2017)
 O. Piazza (PhD exam committee, 2016)
 J. Shao (PhD exam committee, 2016)
S. Dong (PhD advisor, exam 2016; defended 2019; post doc Caltech)
J. Yager (PhD exam committee, 2015; defended 2019)
 B. Lam (PhD exam committee, 2015)
D. Wilmeth (PhD exam committee, 2015; post doc CNRS Paris)
 J. Thompson (PhD exam committee, 2015; post doc Baylor)
 G. S. Lu (PhD exam committee, 2015)
 J. Baronas (PhD exam committee, 2015; post doc Cambridge)
 A. Bardsley (PhD exam committee, 2015; Instructor USC ENST)
A. Subhas (PhD committee, co-advisor: Caltech, 2017 PhD, Faculty WHOI)
 G. Li (PhD exam committee—2014)
 M. Morando (PhD exam committee, 2014, MEB)
C. Tems (main advisor—PhD 2016)—now Asst. Prof. Weber State University
J. Fleming (main advisor—PhD 2016)—now at Center for Biological Diversity and Law
 S. Hu (PhD exam committee—2013, Marine Environmental Biology)
 M. Sin Wu (PhD exam committee—2013)
D. Monteverde (co-advisor, PhD exam committee—2014, PhD 2016)—post doc Caltech
 C. Suffridge (PhD exam committee—2013, Marine Environmental Biology)
 L. Petsios (PhD exam committee—2013, PhD 2016; Asst. Prof. Baylor)
W. Haskell (PhD committee—2012; PhD 2015; now post-doctoral fellow, MBARI)
L. Chong (main advisor, PhD 2013, now at Lawrence Berkeley Lab)
 G. Ramirez (PhD exam committee—2013, Marine Environmental Biology)
 B. Tully (PhD committee---2012, Marine Environmental Biology)
E. Mortazavi (MS reading committee—2012)
Y. Ibarra (PhD committee—2012; post-doc, Stanford)-- now Asst. Prof. SFSU
 J. McLean (PhD exam committee—2012)
 M. Ribbens (PhD exam committee—2012, Molecular Biology)
 N. Klein (PhD exam committee---Marine Environmental Biology-2012)
 A. Beck (PhD committee; Caltech—2011)
 J. Cram (PhD exam committee—Marine Environmental Biology)
 M. Cheetham (PhD exam committee)
K. Ritterbush (PhD exam committee, now Asst. Professor, U. Utah)
 E. Smail (PhD exam committee—Marine Environmental Biology)
 S. Ullrich (PhD exam committee---Colorado School Mines)
 Y. Wang (PhD exam committee)
 J. Jacquot (PhD exam committee—Marine Environmental Biology)
C. Wolfe (MS reading committee)
 G. Horn (PhD exam committee—Marine Environmental Biology)
C. Frantz (PhD exam committee)—now Asst. Prof. Weber State University, Utah
 P. Chellamuthu (PhD exam committee—Molecular Biology)
 S. Mata (PhD exam committee)
 N. Garcia (PhD exam committee—Marine Environmental Biology)

S. Greene (PhD exam and thesis committee)
 E. Singer (PhD exam committee)
T. Riedel (main advisor, PhD 2011, post-doc UCLA, NTT at U. Texas, Austin)
L. Collins (main advisor, PhD 2009, Asst. Prof. Santa Monica College)
R. Martindale (PhD exam committee, post doc Harvard, Asst. Prof. U. Texas, Austin)
 J. Reuter (MS, Thesis committee 2008)
S. Loyd (PhD exam committee-PhD 2010, UCLA post-doc, Asst. Prof. CSU Fullerton)
V. Petryshyn (PhD exam committee—PhD 2012, UCLA post-doc, Instructor USC ENST)
 B. Flood (PhD exam committee)
 K. Domke (PhD exam committee)
E. Salas (PhD exam committee, post doc at Rice, now at Chevron, Houston)
 J. Bailey (PhD exam committee, Asst. Prof at U. Minn.)
 O. Johnson (provided assistance with his PhD research)
 A. Olcott (PhD exam committee, Asst. Prof. at U. Kansas)
 C. Drennen (MS, provided assistance with her research)
 M. Worsnopp (MS committee member, now working in the Environmental field)
G. Bartholini (visiting PhD student from Italy, Fall 2005)
 M. Prokopenko (PhD exam committee, PhD 2006, Hess post-doc at Princeton, Instructor Pomona College)
S. Colbert (PhD, post-doc in Monaco, Asst. Prof. Hawaii, Hilo)
H. Stahl (U. Goteborg, Sweden) Invited Opponent to his PhD. defense
 E. Bennen-Nilsen (UC Santa Cruz—outside PhD committee member)
 J. Holsten (MS committee member, now working in the Environmental field)
 P. Gomez (MS committee member, now working in the Environmental field)
 K. Cummins (MS)
 N. Fraser (PhD)
 M. Echarte (MS)
 R. Archer (MS)
T. Townsend (MS, main advisor)
 H-C. Li (PhD)
 B. Leslie (PhD)
 X-M Xu (PhD)

Undergraduates:

Garrick Lo (2019, USC Engineering)
 Rabia Ghulam-Ali (2019, USC Chemistry)
 Maryana Bonilla-Yanez (2019, USC ENST)
 Rachel Emig (2019, USC Cinema)
 L. Kaye-Lew (Summer 2018, high school student)
 M. King (Summer 2018 REU from Bowdoin)
 S. Scharf (Summer 2017, high school student)
 N. Turaga (2017-2018)
 M. Lee (2015-2016)
 L. Morine (SOAR award, 2013-present; supervised senior thesis)

S. Miller (2014) Supervised Senior thesis (Chemistry Department)
 N. Phalke (2013-14)
 J. Porter (2012-, SOAR award 2013)
 S. Sanghvi (2011-2012)
 C. Fassino (2010-2012)
 A. Bitzer (2009-, SOAR award 2011-2012)
 P. Green (2009-2010; Peace Corps)
 A. Whitesides (2007-8)
 M. Gawey (2007-10, undergrad, SOAR award, UT-Austin Grad School)
 Z. Porter (2007, undergrad, College award for summer research)
 T. Vo (2006-2007, biology undergrad, research assistant)
 C. Der (2006-2007, biology undergrad, research assistant)
 B. Johnson (2006-2007, biology undergrad, research assistant)
 E. Enriquez (lab worker)
 I. Qazi (lab worker)
 A. Mirchandani (lab worker)
 B. Sirakajaidech (lab worker)
 K. Condra (lab worker)
 M. Ragan (lab worker)
 E. Lo (lab worker)

Technical supervision:

N. Rollins (2009-)
 W. Beaumont (2004-2007)
 G. Smith (2002-2004)

TEACHING

Fall 2019—GEOL 511 (Carbonate Chemistry)—4 students
 Spring 2019—Sabbatical (visiting Harvard for 3 weeks)
 Fall 2018---GEOL 512 (Chemical and Physical Oceanography)—12 students
 Fall 2018—GEOL 505 (New Graduate Student Seminar)—9 students
 Fall 2017---GEOL 510 (Carbonate Chemistry)—15 students
 Spring 2017—GEOL 108 (Crisis of a Planet)—180 students
 Spring 2017—GEOL 305 (Engineering Geology—taught 1/3)—40 students
 Spring 2016-- GEOL 601 (Seminar on Geobiology)—10 students
 Fall 2015 GEOL 505 (New Graduate Student Seminar)—6 students
 Fall 2015 GEOL 351 (Climate Systems)—10 students, new class
 Spring 2015 GEOL 601 (Seminar on Geobiology)—12 students
 Fall 2014—GEOL 505 (New Graduate Student Seminar)—13 students
 Spring 2014—GEOL 601 (Carbonate Chemistry)—10 students
 Fall 2013—GEOL 505 (New Graduate Student Seminar)—20 Students
 Spring 2013—GEOL 601 (Geobiology Seminar—Carbonate Chemistry)—8 students
 Fall 2012—GEOL 107 (*Elements of Oceanography*)—125 Students
 Spring 2012--Sabbatical

- Fall 2011—GEOL 385 (Undergraduate Research Training)—6 Students
- Fall 2011—GEOL 108 (Crises of a Planet)—120 Students
- Spring 2010—GEOL 107 (*Elements of Oceanography*)—150 Students
- Spring 2010—GEOL 601 (*Seminar in Geobiology—Biomineralization*)—7 graduate students, team taught with F. Corsetti and D. Bottjer
- Fall 2010—GEOL 560 (Marine Sedimentary Geochemistry)—12 graduate students.
- Spring 2009—GEOL 601 (*Seminar in Geobiology—Non-Actualistic biosignatures*)—8 Graduate Students, team taught with F. Corsetti, D. Bottjer, and S. Feakins
- Spring 2009—GEOL 107 (*Elements of Oceanography*)—160 Students
- Fall 2008—GEOL 511 (Carbonates)—11 Graduate Students, team taught with F. Corsetti
- Spring 2008—GEOL 601 (*Seminar in Geobiology—Crises*)—7 Graduate Students, team taught with F. Corsetti, D. Bottjer, and R. Douglas
- Spring 2008—GEOL 107 (*Elements of Oceanography*)—110 Students
- Fall 2007—GEOL/BISC 474 (Catalina Semester—Earth System and Ecosystem Function)—7 undergraduate students, co-taught with W. Ziebis
- Fall 2007—Welcome Week Micro-Seminar – Biosignatures and the Search for Life
- Spring 2007—GEOL 601 (*Seminar in Geobiology—Anoxia*)—6 grad students, team taught with F. Corsetti, D. Bottjer, and R. Douglas
- Spring 2007—GEOL 107 (*Elements of Oceanography*)—130 Students
- Fall 2006-- GEOL/BISC 474 (*Ecosystem Function and Earth Systems*)-4 undergraduates—*Instructor Evaluation = 3.50*
- Fall 2006—Welcome Week Micro-Seminar – Biosignatures and life on Mars
- Summers 2002-2011 The *International Summer Course in GeoBiology*--20 students from a pool of applicants are selected each year representing a range of institutions, US and international. Six-week intensive course. I am executive director and instructor.
- Spring 2006—GEOL 107 (*Elements of Oceanography*)—240 students—*Instructor Evaluation = 3.24*
- Spring 2006—GEOL 514 (*Marine Geology*)—7 graduate students—co-taught with R. Douglas
Instructor Evaluation = 5.00
- Fall 2005—GEOL/BISC 474 (*Ecosystem Function and Earth Systems*)—8 undergraduates, part of Catalina Semester, co-taught with W. Ziebis, developed course syllabus and lab and field exercises, taught on Catalina Island for 2 weeks—*Instructor Evaluation = 4.75*
- Spring 2005—GEOL 510 (*Depositional Systems—Carbonates*)—4 grad students—co-taught with F. Corsetti—*Instructor Evaluation = 4.75*
- Spring 2005—GEOL 560 (*Marine Geochemistry*)—8 grad students—co-taught with D. Hammond—*Instructor Evaluation = 4.22*
- Spring 2005—GEOL XXX (*GeoSystems*)—helped organize a ‘unit’ of this prototype course
- Fall 2004--GEOL 108 (*Crisis of a Planet*)—240 students—*Instructor Evaluation = 4.09*
- Spring 2001—GEOL 560 (*Marine Geochemistry*)—co-taught with D. Hammond
- Summer 2000 and 1999-- *Environmental Geochemistry*: Taught this field-oriented, 2-week class at the Wrigley facility on Catalina Island, and had surplus of applicants interested in enrolling. Students accepted were graduate students from Scripps, ODU, U Delaware, Australia, USC, Texas A&M, UC Irvine, UC Santa Barbara, MBARI and Goteborg University, Sweden.

I have delivered guest lectures in the following classes: Marine Geology, Marine Geochemistry, Engineering Geology, Historical Geology, Seminar in Geobiology, Geobiology, Inorganic Chemistry, Oceanography, Environmental Microbiology

ABSTRACTS (last 10 years)

- Chong, L., M. Prokopenko, A. Townsend-Small and W. Berelson (2009) Untangling a New Twist in the Nitrogen Cycle: Biological Nitrate Transport and Anaerobic Iron Oxidation, AGU Fall Meeting, San Francisco
- Loyd, S. J., F. A. Corsetti, W. Berelson, T. W. Lyons and J. R. Schwalbach (2009) Dolomite concretion formation in distinct diagenetic regimes as revealed by combined $\delta^{34}\text{S}$ and $\delta^{13}\text{C}$ analyses of the Miocene Monterey Formation, AGU Fall Meeting, San Francisco.
- Gawey, M., T. Riedel and Will Berelson (2009) The Effect of Oxygen Cycling on Long Term Stationary Phase Microbial Respiration Rates, AGU Fall Meeting, San Francisco.
- Reidel, T., W. Berelson and S. Finkel (2010) The Specific Oxygen Consumption Rate of Three Nutrient Limited Bacteria Species Is Dependent on Population Density in a Non-Linear Fashion. American Society of Microbiology, Annual Meeting (San Diego).
- C. P. Pepe-Ranney; W. Berelson; F. A. Corsetti; J. R. Spear Microbial Diversity of a Living Stromatolite in Yellowstone National Park, Wyoming: Learning How a Stromatolite Grows. AGU Fall meeting, San Francisco (2010)
- J. McManus; W. Berelson; S. Severmann; M. Roy; Z. Chase; J. M. Muratli; R. H. Hastings; M. A. Goni; A. C. Mix The benthic manganese cycle along the Oregon-California continental margin. AGU Fall meeting, San Francisco (2010)
- F. A. Corsetti; W. Berelson; J. R. Spear; D. E. Hammond; C. Pepe-Ranney; W. Beaumont Lamination Formation, CO₂ Uptake And Environmental Effects On Morphology: Siliceous Stromatolite Formation In A Hot Spring, Yellowstone National Park. AGU Fall meeting, San Francisco (2010)
- M. Hirst; L. N. Dossing; P. Tamez; S. Ziegler; K. Hanselmann; A. L. Sessions; J. R. Spear; H. Johnson; W. Berelson; F. A. Corsetti; S. Dawson; J. R. de la Torre Microbial lifestyles that enable survival in lithifying habitats. AGU Fall meeting, San Francisco (2010)
- W. Z. Haskell; W. Berelson; D. E. Hammond; M. G. Prokopenko; L. Y. Yeung; D. G. Capone Export POC flux calculated from ²³⁴Th measurements, sediment traps and O₂ supersaturation in the Eastern Tropical South Pacific. AGU Fall meeting, San Francisco (2010)
- M. G. Prokopenko; L. Y. Yeung; W. Berelson; J. Fleming; N. Rollins; E. D. Young; W. Z. Haskell; D. E. Hammond; D. G. Capone Net community and gross photosynthetic production rates in the eastern tropical South Pacific as determined from ²²²Rn and triple oxygen isotopic composition of dissolved O₂. AGU Fall meeting, San Francisco (2010)
- L. Chong; W. Berelson; J. Fleming; N. Rollins; J. McManus Pore water constraints on

- organic carbon and biogenic Si deposition and remineralization in the sediments underlying the Amazon Plume. AGU Fall meeting, San Francisco (2010)
- W. Berelson; L. Y. Yeung; D. E. Hammond; C. I. Wolfe; N. Rollins; M. G. Prokopenko
Comparison of Radon-222 and satellite-wind-based estimates of gas exchange in the Eastern Tropical South Pacific ocean. AGU Fall meeting, San Francisco (2010)
- A. Townsend-Small; M. G. Prokopenko; W. Berelson; L. Chong Nitrous oxide concentrations and stable isotopes in water column and sediment profiles along the southern California and northwestern Mexican margin. AGU Fall meeting, San Francisco (2010)
- L. Y. Yeung; E. A. Schauble; J. Fleming; M. G. Prokopenko; W. Berelson; E. D. Young
Understanding the triple-isotopic mass dependence of equilibrium oxygen solvation. AGU Fall meeting, San Francisco (2010)
- L. Y. Yeung; W. Berelson, E. D. Young, M. G. Prokopenko, E. J. Carpenter and P. L. Yager. Oxygen triple-isotope evidence for enhancement of carbon sequestration efficiency by diatom-diazotroph assemblages in a giant river plume. Goldschmidt Conf., Prauge (2011)
- V. Petryshyn, C. Frantz, F. Corsetti, W. Berelson and P. Marenco. Stable isotope and carbonate associated sulfate record of a lacustrine stromatolite, Green River Formation (Eocene), GSA Annual Meeting, 2011.
- F. Corsetti, W. Berelson, J. Spear, C. Pepe-Ranney and S. Mata. The effects of spring level on stromatolite lamination and morphology, Yellowstone National Park. GSA Annual Meeting, 2011.
- S. Greene, D. Bottjer, F. Corsetti, R. Martindale, K. Ritterbush and W. Berelson. An early diagenetic carbonate factory across the T-J transition. GSA Annual Meeting, 2011.
- R. Martindale, W. Berelson, F. Corsetti, D. Bottjer and J. West (2011) The potential ocean acidification event at the T-J boundary: Constraining carbonate chemistry using the presence of corals and coral reefs in the fossil record. AGU Annual meeting, Talk, 2011.
- V. Petryshyn, F. Corsetti, S. Lund and W. Berelson (2011) Magnetic susceptibility as a biosignature. AGU Annual meeting, Poster, 2011.
- A. Williams et al. (2011) Microbial survival in strongly lithifying hot spring environments, Yellowstone National Park, AGU Annual meeting, Poster, 2011.
- K. Woycheese et al. (2011) Carbon uptake, microbial community structure, and mineralization of layered mats from Imperial Geysers, Yellowstone National Park, AGU Annual Meeting, Poster, 2011.
- W. M. Berelson, N. Rollins, W. Haskell, C. Tems, C. Wolfe, M. Prokopenko, A. N. Knapp, K. L. Casciotti, D. Hammond, T. Gunderson and D. G. Capone (2012). Sedimentation and biogenic matter remineralization in the E. Tropical South Pacific: Sediment trap and sediment pore water fluxes. Ocean Sciences, AGU, Feb. 2012.
- L. Y. Yeung, W. Berelson, E. D. Young, M. Prokopenko, V. J. Coles, J. P. Montoya, E. J. Carpenter and P. L. Yager (2012) Impact of diatom-diazotroph associations on carbon export in the Amazon river plume. Ocean Sciences, AGU, Feb. 2012.
- C. Tems, W. Berelson, M. Prokopenko and J. McManus (2012) A comparative high-

- resolution study of ^{15}N in sediments from the Pescadero Slope, Gulf of California and Santa Monica Basin, California Borderland. Ocean Sciences, AGU, Feb. 2012.
- L. Chong, W. Berelson, N. Rollins and J. McManus (2012) Footprints in the Mud: Patterns of organic matter deposition identified by pore water chemical signatures in sediments underlying the Amazon River plume. Ocean Sciences, AGU, Feb. 2012.
- A. N. Knapp, K. L. Casciotti, C. Buchwald, S. Bonnet, J. Dekaezemacker, T. Gunderson, M. Prokopenko, W. Berelson and D. G. Capone (2012) Quantifying the importance of nitrate and N_2 fixation as sources of new N for export production in the eastern tropical South Pacific using $\delta^{15}\text{N}$ budgets. Ocean Sciences, AGU, Feb. 2012.
- M. Prokopenko, L. Y. Yeung, W. Berelson, R. Stanley, W. Z. Haskell, A. N. Knapp, D. E. Hammond, N. Rollins, E. Young and D. G. Capone (2012) Net community and gross photosynthetic production rates in the E. Tropical South Pacific as determined from O_2/Ar ratios and triple oxygen isotopic composition of dissolved O_2 . Ocean Sciences, AGU, Feb. 2012.
- R. C. Martindale; S. E. Greene; K. A. Ritterbush; D. J. Bottjer; F. A. Corsetti; W. Berelson (2012) The evidence for ocean acidification across the Triassic-Jurassic boundary. AGU, San Francisco.
- D. E. Hammond; J. J. Baronas; W. Berelson; J. McManus; S. Severmann (2012) An Investigation of Controls on Oceanic Ge/Si Ratios, a Potential Proxy for Changes in the Biogeochemical Cycling of Si, AGU, San Francisco.
- K. S. Metcalfe; R. R. Gaines; J. Trang; S. Scott; E. J. Crane; J. Star Lackey; M. G. Prokopenko; W. Berelson (2012) Evidence for microbial liberation of structurally-coordinated iron in clay minerals as a nutrient source in the world ocean, AGU, San Francisco.
- D. Hoer; M. A. Torres; E. Bak; T. Wunderlin; L-E. R. Pedersen; International Geobiology Summer Course 2012; C. M. Frantz; H. Johnson; W. Berelson; J. G. Caporaso; J. R. Spear (2012) Autotrophic DIC uptake rates and their association to microbial community structure in microbial mats from a sulfidic, saline, warm spring, Utah, USA, AGU, San Francisco.
- J. Spear, F. Corsetti, W. Berelson (2013) Microbial diversity and construction of a YNP stromatolite. GSA, Denver.
- K. S. Metcalfe; R.R. Gaines; J. Trang; S. W. Scott; E. J. Crane; J. Star Lackey; M.G. Prokopenko; W. Berelson (2013) Experimental Constraints on Microbial Liberation of Structural Iron from Common Clay Minerals in Marine Sediments, AGU San Francisco
- R. P. Anderson; J. T. Bird; M. Meneske; E. J. Stefurak; W. Berelson; V. A. Petryshyn; R. S. Shapiro; A. L. Sessions; A. Tripathi; F. A. Corsetti (2013) Ooid formation in the Great Salt Lake, Utah: Insights from clumped isotope paleothermometry, AGU San Francisco
- J. T. Bird; E. J. Stefurak; R. P. Anderson; M. Meneske; W. Berelson; A. L. Sessions; M. R. Osburn; J.R. Spear; B. W. Stamps; B. Stevenson; R. S. Shapiro; M. A. Torres; F. A. Corsetti (2013), Evaluating the Biological Influences on Ooid Formation in the Great Salt Lake, Utah; AGU San Francisco

- C. A. Deutsch; T. Ito; A. van Geen; W. Berelson; R. Thunell (2013); Declining ocean anoxia in a warming climate; AGU San Francisco
- D. E. Hammond, W. Haskell, M. Prokopenko, W. M. Berelson (2014) A dual-tracer approach to calculate upwelling velocity and particle export in the Southern California Bight; AGU/ASLO Honolulu
- A. Subhas, N. Rollins, J. Erez, W. Berelson, J. Adkins (2014) The dissolution kinetics of carbonate minerals; AGU/ASLO Honolulu
- W. Haskell, M. Prokopenko, D. Hammond, R. Stanley, W. Berelson (2014) Exploring the effect of upwelling on ecosystem export efficiency in S. California using the concentration and isotopic composition of dissolved oxygen; AGU/ASLO Honolulu
- D. Monteverde, L. Cutter, L. Chong, W. Berelson, S. Sanudo-Wilhelmy (2014) Potential sedimentary flux of B-Vitamins to the water column of Santa Monica Basin, CA; AGU/ASLO Honolulu
- D. Johnston, B. Gill, A. Masterson, E. Beirne, W. Berelson (2014) Quantifying the cryptic OMZ S cycle; AGU/ASLO Honolulu
- C. Tams, W. Berelson (2014) A comparative high-resolution study of $\delta^{15}\text{N}$ in laminated sediments as a proxy for fluctuations in the intensity of oxygen minimum zones; AGU/ASLO Honolulu
- J. Fleming, C. Tams, W. Haskell, W. Berelson (2014) Declining oxygen trends in San Pedro Basin as a potential sign of changes in productivity and carbon availability—explored via oxygen consumption measurements; AGU/ASLO Honolulu
- J. McManus, W. Berelson, S. Severmann, J. Muratli (2014) Manganese, iron and nutrient sediment-water exchange during a hypoxic event in the Gulf of Mexico; AGU/ASLO Honolulu
- W. Berelson, M. Prokopenko, W. Haskell, D. Capone, A. Knapp (2014) Export, sediment traps and sediment diagenesis provide evidence of OMZ impact on pelagic-benthic coupling in the ETSP; AGU/ASLO Honolulu
- K. Ritterbush, F. Corsetti, W. Berelson, J. West, S. Rosas, D. Bottjer and J. Yager (2014) Geochemistry across the T/J mass extinction interval and the importance of biosiliceous ‘glass ramps’. GSA, Vancouver
- Daille, L., Trivedi, C., Bradley, J., Bojanowski, C., Johnson, H., Stamps, B., Stevenson, B., Berelson, W., Corsetti, F. (2015) Carbonate-rich cones: A new modern analogue of ancient conical stromatolite formation? GSA, Baltimore.
- Wilmeth, D., Grim, S., Krusor, M., Johnson, H., Berelson, W., Stamps, B., Stevenson, B., Piazza, O., Corsetti, F., Spear, J. (2015) Microbial metabolisms influence carbonate precipitation in a laminated microbial mat. GSA, Baltimore.
- Thibodeau, A., Corsetti, F., Ritterbush, K., Yager, J., West, J., Ibarra, Y., Bottjer, D., Berelson, W., Bergquist, B. (2015) Mercury concentrations and isotopes as tracers of CAMP in Triassic-Jurassic strata from Muller Canyon, NV. GSA, Baltimore
- Piazza, O., Corsetti, F., Spear, J., Stamps, B., Stevenson, B., Berelson, W. (2015) Microbial diversity of ooids from Great Salt Lake, UT. GSA, Baltimore
- Yager, J., West, J., Corsetti, F., Berelson, W., Bottjer, D., Rosas, S. (2015) Timing of carbon isotope excursions during the late Triassic and early Jurassic: New modeling constraints for C cycle perturbations associated with the emplacement of

- CAMP. GSA, Baltimore.
- Johnston, D., Cowie, B., Antler, G., Turchyn, A., Berelson, W. (2015) The triple oxygen isotope composition of marine sulfate: A metric for atmospheric oxygen. GSA, Baltimore
- Subhas, A., J. Erez, N. Rollins, J. F. Adkins and W. Berelson (2016) Dissolution kinetics of biogenic carbonates in sea water. AGU/Ocean Sciences, New Orleans
- Dong, S., A. Subhas, N. Rollins, W. Berelson and J. F. Adkins (2016) Kinetics of inorganic calcite dissolution in seawater under pressure. AGU/Ocean Sciences, New Orleans
- Fleming, J. C., W. Berelson, L. Aluwihare and D. E. Hammond (2016) CO₂ respiration/O₂ consumption in response to supplemental organic carbon: implications for natural DOC composition in San Pedro Basin, CA. AGU/Ocean Sciences, New Orleans
- He, D., W. Berelson, P. L. Yager and P. M. Medeiros (2016) Influence of the Amazon River on the composition of particulate organic carbon in the western tropical Atlantic Ocean. AGU/Ocean Sciences, New Orleans
- Yager, J. A., W. M. Berelson, F. A. Corsetti, A. J. West, S. Rosas and D. J. Bottjer (2016) Shifting biogeochemical dynamics during the late Triassic and early Jurassic: Insight from stable carbon and nitrogen records. GSA Annual Meeting, Denver
- Wilmeth, D. T., F. A. Corsetti, W. M. Berelson, N. J. Beukes, N. Rollins and J. A. Yager (2016) Methanotrophy in 2.7 GA S. African Lakes. GSA Annual Meeting, Denver
- Larina, E., D. J. Bottjer, J. A. Yager, F. A. Corsetti and W. M. Berelson (2016) High resolution petrographic and carbon isotope analyses of the end-Triassic mass extinction horizon, lowermost Muller Canyon member, Ferguson Hill, Nv. GSA Annual Meeting, Denver
- Larina, E., D. J. Bottjer, F. A. Corsetti, W. M. Berelson, J. A. Yager and A. J. West (2017) New record of biotic response and of an unusual carbonate system for the end-Triassic mass extinction at Ferguson Hill, NV. GSA Annual Meeting, Seattle.
- Wynn, P. D., J. A. Yager, A. J. West, N. Rollins, W. M. Berelson and F. A. Corsetti (2017) Testing liquid decarbonation temperature and time for $\delta^{13}\text{C}_{\text{org}}$ analyses in sedimentary sections. GSA Annual Meeting, Seattle.
- Yager, J., A. J. West, B. A. Bergquist, A. M. Thibodeau, F. A. Corsetti, W. M. Berelson and D. J. Bottjer (2017) Mercury concentrations and isotopes from the Triassic-Jurassic boundary: A lithologic and depositional discussion. GSA Annual Meeting, Seattle.
- Thibodeau, A. M., B. A. Bergquist, F. A. Corsetti, J. A. Yager, A. J. West, D. J. Bottjer, W. M. Berelson, L. C. Kah, R. M. Hazen and S. Ono (2017) Hg isotopes as tracers of depositional environments in marine sediments from the Precambrian to the Phanerozoic. GSA Annual Meeting, Seattle.
- Wilmeth, D. T., F. A. Corsetti, W. M. Berelson, N. J. Beukes, S. M. Awramik and V. A. Petryshyn (2017) Gas production within Archean stromatolites: Evidence for ancient microbial metabolisms. GSA Annual Meeting, Seattle.
- Corsetti, F. A., J. Yager, K. A. Ritterbush, Y. Ibarra, A. M. Thibodeau, B. A. Bergquist, A. J. West, D. J. Botter, W. M. Berelson and S. Rosas (2017) Timing and

- alternative ecosystem states following the end-Triassic mass extinction: Insights from Hg Anomalies and their relationship to the CAMP. GSA Annual Meeting, Seattle.
- Yager, J., W. M. Berelson, A. J. West, F. A. Corsetti, P. Pinedo-Gonzalez, S. Rosas and D. J. Bottjer. Decreasing water column denitrification before the end-Triassic extinction? Insight from stable N isotopes. GSA Annual Meeting, Seattle.
- Paradis, P. O., F. A. Corsetti, A. Bardsley, D. E. Hammond, X. Xu, B. W. Stamps, B. S. Stevenson, J. Walker and W. M. Berelson (2017) Unraveling radial ooid formation in Great Salt Lake: Insights from radiocarbon chronology and molecular biology. GSA Annual Meeting, Seattle.
- Wilmeth, D., F. Corsetti, W. Berelson, N. Beukes, S. Awramik and V. Petryshyn (2017) Gas production within stromatolites across the Archaen: Evidence for ancient microbial metabolisms. AGU Annual Meeting, New Orleans, LA.
- Yager, J., A. J. West, B. Bergquist, A. Thibodeau, F. Corsetti, W. Berelson, S. Rosas, D. Bottjer (2017) Mercury anomalies as a proxy for large igneous province volcanism and effects on the carbon cycle in a U-P age-constrained section spanning the end-Triassic mass extinction, Levanto, Peru. AGU Annual Meeting, New Orleans, LA.
- Hu, H., L. Yeung, J. Ash, N. Rollins and W. Berelson (2018) Constraints on marine oxygen cycling and transport from five O₂ isotopologues (³²O₂, ³³O₂, ³⁴O₂, ³⁵O₂ and ³⁶O₂). AGU Ocean Sciences Meeting, Portland, Oregon.
- Treude, T., S. Lemieux, E. Petsios, J. Drake and W. Berelson (2018) Oxygen-related patterns of lamination, macrofauna diversity, and biogeochemical gradients in sediments below the oxygen minimum zone of the Santa Monica Basin, California. AGU Ocean Sciences Meeting, Portland, Oregon.
- Subhas, A., S. Dong, N. Kemnitz, J. Adkins and W. Berelson (2018) The activity of carbonic anhydrase on suspended and sinking particles in the N. Pacific. AGU Ocean Sciences Meeting, Portland, Oregon.
- Hou, Y., D. Hammond, W. Berelson, J. Adkins, J. Rae, A. Lunstrum and N. Kemnitz (2018) Spatial patterns of silicic acid benthic flux in the N. Pacific reflect upper ocean diatom production. AGU Ocean Sciences Meeting, Portland, Oregon.
- Dong, S., N. Rollins, A. Subhas, J. Naviaux, A. Celestian, N. Kemnitz, J. Adkins, W. Berelson In situ aragonite dissolution in N. Pacific: Rate and role in modern ocean carbon budget. AGU Ocean Sciences Meeting, Portland, Oregon.
- Naviaux, J., A. Subhas, J. Adkins, N. Rollins, S. Dong and W. Berelson (2018) The temperature dependence of calcite dissolution and a comparison with in situ dissolution rate measurements across the N. Pacific. AGU Ocean Sciences Meeting, Portland, Oregon.
- Berelson, W. and 23 others (2018). Carbonate dissolution in the N. Pacific Ocean: Results of C-DisK 4 a cruise between Hawaii and Alaska t characterize carbonate producers, export and dissolution kinetics in an acidifying ocean. AGU Ocean Sciences Meeting, Portland, Oregon.
- Ziveri, P., W. Gray, S. Pallacks, J. Rae, C. Manno, W. Berelson and J. Adkins (2018) Factors controlling the distribution of pteropods in the N. Pacific Ocean from subtropical to subpolar waters. AGU Ocean Sciences Meeting, Portland, Oregon.
- Johnston, D. T., A. L. Masterson, M. Alperin, G. Arnold, W. Berelson, H. Roy and B.

- Jorgensen (2018) Understanding the isotopic composition of sedimentary sulfide. Goldschmidt Conference, Boston
- Dong, S. A. Celestian, N. Turaga, N. Rollins, J. Naviaux, A. Subhas, J. Adkins and W. Berelson (2018) A new study on PIC dissolution and sinking fluxes, concentrations and calcite/aragonite ratios in the N. Pacific. Goldschmidt Conference, Boston
- Yager, J. A., A. J. West, F. A. Corsetti, W. Berelson, A. Thibodeau, P. Pinedo-Gonzalez, S. Rosas, B. Bergquist and D. J. Bottjer (2018) Goldschmidt Conference, Boston
- Figueroa, M., D. Gregory, K. Choumiline, S. Lemieux, T. Treude, W. Berelson, S. Bates and T. Lyons (2018) Goldschmidt Conference, Boston
- Wynn, P. D., J. A. Yager, J. A. West, N. Rollins and W. Berelson (2018) Variable liquid decarbonation methods for $\delta^{13}\text{C}_{\text{org}}$ analyses in sedimentary sections and on modern soils and river sediments. GSA Annual Meeting, Indianapolis
- Wilmeth, D. T., F. A. Corsetti, W. M. Berelson, N. Beukes, S. M. Awramik, V. A. Petryshyn, J. R. Spear and A. J. Celestian. (2018) Evidence for rapid rates of oxygenic photosynthesis within Neoproterozoic stromatolites. GSA Annual Meeting, Indianapolis
- Yager, J. A., A. J. West, F. A. Corsetti, W. M. Berelson, A. M. Thibodeau, P. Pinedo-Gonzalez, S. Rosas, B. Berquist and D. J. Bottjer (2018) Earth-Life transitions within a chronologic framework: Biogeochemical change associated with the end-Triassic extinction from the Levanto section (Peru). GSA Annual Meeting, Indianapolis
- Larina, E. and 8 others. (2019) The record of environmental change in northeastern Panthalassa directly preceding the end-Triassic mass extinction event. GSA Annual Meeting, Phoenix
- Berelson, W., J. Adkins, D. Carroll, D. Menemenlis (2019) Reacting CO_2 and limestone to alkalize the ocean and sequester anthropogenic CO_2 . AGU Annual Meeting, San Francisco
- Dong, S., W. Berelson and 5 others (2019) An atomic scale study of carbonic anhydrase enhanced calcite dissolution: mechanisms and implications for the ocean carbonate cycle. AGU Annual Meeting, San Francisco
- Phillips, A. A. and 15 others (2019) Microbial succession in hypersaline, alkaline Mono Lake, CA. AGU Annual Meeting, San Francisco

Research Cruise Experience

Participated on over 32 research cruises, many as chief scientist including trips on *R.V. Eastward*, *Polaris*, *Velero IV*, *New Horizon*, *Melville*, *Atlantis II/Alvin*, *R. G. Sproul*, *T. Washington*, *Point Sur*, *J. Vickers*, *T. Thompson*, *Wecoma*, *Knorr* and *Kilo Moana*.

I've also worked on small coastal research vessels in the NW Adriatic, LA/Long Beach Harbors, Santa Monica Bay and Palos Verdes shelf, Port Phillip Bay (Australia), Moreton Bay (Australia), Wilson Inlet (Australia), San Francisco Bay, Lake Coeur d'Alene, Walker Lake, NV and around Catalina Island.