

Dr. Roy E. Price
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Current Positions

-**Assistant Professor**, School of Marine and Atmospheric Sciences (SoMAS), Stony Brook University, Stony Brook, New York, USA. Since September 2023.

-Affiliated Faculty, Department of Geosciences, Stony Brook University, Stony Brook, New York, USA.

Education

- 2008: Ph.D., **Geochemistry**. University of South Florida, Tampa, FL.
- 2003: Master of Science, **Hydrogeology**. University of South Florida, Tampa, FL
- 1999: Bachelor of Science, **Geology**, University of Arkansas, Fayetteville, AR.

Past Preparation

- Research Assistant Professor (with PI status), School of Marine and Atmospheric Sciences (SoMAS), Stony Brook University, Stony Brook, New York, USA. *Oct 2014 – Sept 2023*.
- Institute for Advanced Study “Hanse-Wissenschaftskolleg” for the project “Fluid-mineral-microbe interactions in saponite-rich hydrothermal systems”; Uni Bremen. *July 2022 – May 2023*
- Research Coordinator, New York State Center for Clean Water Technology (CCWT) at Stony Brook University. *August 2015 through August 2018*.
- Inorganic Geochemist - Joides Resolution, IODP Expedition Leg 366 to Mariana Forearc Convergent Margin to drill serpentinite mud volcanoes; *Dec 7, 2016-Feb 7, 2017*.
- Visiting Researcher “*Gastwissenschaftler*” at the GEOMAR Helmholtz Centre of Ocean Research in Kiel, Germany. Hosted by Prof. Dr. Tina Treude. *October 2013 – May 2014*.
- Postdoctoral Research Associate, Dept. of Earth Sciences, University of Southern California with Dr. Jan Amend. *Oct 2010 to Oct 2013*.
- Postdoctoral Research Fellow, MARUM Center for Marine Environmental Sciences, University of Bremen, Germany. *May 2008 to Oct 2010*.

Ongoing Projects

- The fate of organic pollutants being discharged through ocean outfalls to the New York Bight; as PI. Feb 15, 2025 – Feb 14, 2026.
- Studies of Nearfield Impacts of Ocean Outfalls; as PI. Funded by the New York State Department of Environmental Conservation. April 1, 2024 - March 31, 2027.
- Development and implementation of an ocean ecosystem monitoring program for New York Bight, as Co-I. July 1, 2024 – 2027, renewable. Funded by the New York State Department of Environmental Conservation.
- NASA Habitable Worlds proposal as PI: Habitability estimates for heterotrophic metabolisms in wet-to-dry transient environments on Noachian Mars (HabMars). 09/2023-09/2026.

Service

- Member: SoMAS Faculty Council. September 2023 to present.
- Member: SoMAS Graduate Admissions, Recruitment and Diversity Committee. November 2023 to present.
- Member: Retreat Planning Committee. October 2024 to present.
- One of the founding members of the Diversity, Equity, and Inclusion Committee of the SBU School of Marine and Atmospheric Sciences. Served Oct 2020 through May 2022.

Professional Memberships

- Geochemical Society Member # 209133

Distinguished Achievements

- Invited presentation for Origins of Life Gordon Research Conference (Jan 2022), in the session “Hydrothermal Vents: Differences Between Modern and Hadean Earth”. My presentation: “Extending the submarine alkaline vent model for life’s emergence to the shallow sea”.
- AbSciCon (May 2022) session co-convener under theme Ocean worlds near and far. Session title “Geochemistry and Habitability of Alkaline Hydrothermal Vents on Earth and Beyond”
- Invited reviewer for many scientific journals including Life, PNAS, PLoS One, Nature Geosciences, Earth Science Reviews, Nature Scientific Reports, Planetary and Space Science, Astrobiology, Marine Chemistry, Marine Geology, Applied Geochemistry, Chemical Geology, JGR Biogeosciences, and Environmental Science: Processes & Impacts, NSF proposals related to microbiology and geochemistry.
- Invited participant: ICDP/IODP Workshop, “Drilling into the New Caledonia Ophiolite”, Montpellier, France. Jan 25-27 2019. Pre-proposal submitted Jan 15, 2021 for “New Caledonia Ophiolite Land-to-Sea Drilling Project (NCDP)” as Co-I.
- Invited NASA Exobiology review panel participant.
- Lead author on a Review Paper on marine, shallow-water hydrothermal vents. Price, R.E., and Giovannelli, 2017. A Review of the Geochemistry and Microbiology of Marine Shallow-Water Hydrothermal Vents, *Reference Module in Earth Systems and Environmental Sciences*, Elsevier, 2017. 30-May-17. doi: 10.1016/B978-0-12-409548-9.09523-3.
- Invited participant: ELSI/TDE Workshop, “Requirements for Origin of Life Field Investigations”, Tokyo, Japan. October 5-7 2016.
- Invited participant in Second Deep Carbon Observatory - Early Career Scientist Workshop, at the Centro De Vulcanologia e Avaliaçao de Riscos Geol6gicos, University of the Azores, S3o Miguel, 31 August-5 September 2015.
- Astrobiology Magazine article “Hydrothermal vents could explain chemical precursors to life” by Michael Schirber. June 16, 2014. <http://astrobiology.com/2014/06/hydrothermal-vents-could-explain-chemical-precursors-to-life.html>
- Featured seminar speaker for CDEBI’s “Community College Connections Program” at (1) Los Angeles Trade & Technical College: March 27, 2013; (2) Long Beach Community College: June 12, 2013.
- Goldschmidt 2011 Session Convener: “Geochemical and microbiological research in both shallow and deep-sea hydrothermal environments” Session chaired by Roy Price & Paul Craddock.
- Invited Participant: DFG International Workshop: Research in Shallow Marine and Fresh Water Systems. May 14th – 16th, 2009. Freiberg, Germany.
- April 2004. Invited Participant: DFG 1st German - American Workshop on Biogeochemical Gradients: Microbes, Methods, and Measurements. University of Tübingen, Germany.
- 2002 American Water Resources Association Florida Section Presidents Award: Member of the Year (1st and only student recipient), following the founding and organization of the AWRA student section at USF.

Courses Taught

- Spring 2025 MAR 336. Marine Pollution. Undergraduate level.
- Spring 2025 MAR 302/540 Marine Microbial Ecology. Graduate and undergraduate level.
- Fall 2024. MAR 336/512. Marine Pollution. Taught at both graduate and undergraduate level.
- Spring 2024. MAR 336. Marine Pollution. Undergraduate level.

- Fall 2024, Spring 2024, Fall 2023. MAR 527. Current Issues in Global Climate Change. Graduate level.
- Spring 2022. MAR 333: Coastal Oceanography. School of Marine and Atmospheric Sciences, SUNY Stony Brook. Undergraduate level.
- Fall 2016. GLY315 / ENV315: Groundwater Hydrology / Principles and Applications of Groundwater Hydrology. Department of Geosciences, SUNY Stony Brook.
- Fall 2016. GLY515 (graduate level). Introduction to Physical Hydrogeology
- Fall 2015. MAR 670.T64 Practicum in Teaching. School of Marine and Atmospheric Sciences, SUNY Stony Brook.
- Fall 2015. MAR 104 Introduction to Oceanography. School of Marine and Atmospheric Sciences, SUNY Stony Brook.
- Fall 2015. MAR 105 Introduction to Oceanography. Department of Biology. Suffolk County Community College.
- Fall 2015. GLY315 / ENV315: Groundwater Hydrology / Principles and Applications of Groundwater Hydrology. Department of Geosciences, SUNY Stony Brook.
- Fall 2015. GLY515 (graduate level). Introduction to Physical Hydrogeology
- Spring 2015. MAR 503 (graduate level). Chemical Oceanography Co-instruction
- Spring 2015. ESC101: Introduction to Physical Geology. Department of Natural Sciences. Suffolk County Community College.
- Spring 2008. GLY2010 – Section 901: Earth: Portrait of a Planet (Introduction to Geology). University of South Florida.

Mentoring

*Current (*anticipated graduation date):*

- Bernard Barosa. Ph.D. Co-advisor.
- Hanaan Yazdi. M.Sci. Primary advisor: *May 2026. Ocean Acidification and Carbonate Chemistry of the New York Bight.
- Vanessa Alfonso. Ph.D. Primary advisor: *May 2027. Habitability estimates for heterotrophic metabolisms in wet-to-dry transient environments on Noachian Mars (HabMars).
- Jonathan Lubiantoro. Ph.D. Primary advisor: *May 2027. Potentially toxic element cycling in hydrothermal vents.
- Sukhmani Marwaha. Sophomore at HHH High School West conducting a summer/fall volunteer internship. 2024. Various laboratory training.

*Past: (*graduation date)*

- Rabja Popall, Ph.D. Co-advisor: *Dec 2024. Microbial primary production in the serpentine-hosted Prony Bay hydrothermal field, an Early Earth analog. Aix-Marseille University, Mediterranean Institute of Oceanography.
- Arlaine Sanchez, M.S. Primary advisor: *May 2022. NASA Habitable Worlds project “Habitability of saponite-rich hydrothermal systems of early Mars”.
- Kristen Burk, M.S. Primary advisor: *May 2022. Center for Clean Water Technology supported project “Influence of temperature on increased nitrate reduction coupled to iron oxidation (NRFO) in nitrogen reducing biofilters (NRBs)”.
- Holly Rucker, M.S. Primary advisor, *May 2021. “Habitability of Eridania Lake: An Ancient Mars Lacustrine Hydrothermal Vent, Compared to an Icelandic Analogue Fjord Site”. NASA Habitable Worlds project
- Tricia Clyde, Ph.D. Co-primary advisor, December 2020. “Pharmaceuticals and personal care products (PPCPs) removal evaluation in Nitrogen Removing Biofilters (NRBs)”. CCWT funding.
- Samantha Roberts, Ph.D. primary advisor, November 2020. “The influence of plants on nitrogen cycling in constructed wetlands”. CCWT funding.

- Zoe Smith, M.S. Primary advisor, October 2018. “Trace metal removal in innovative/alternative residential waste water treatment”. CCWT funding.
- Stivaly Paulino, M.S. thesis committee member, September 2017. “Radon tracers of submarine groundwater discharge (SGD) in Jamaica”.
- Jeanette Lee, M.S. thesis committee member, September 2017. “Phosphorous cycling in innovative/alternative residential waste water treatment”. CCWT funding.
- Jasmine Berg, M.S. thesis committee member, Washington University, St. Louis, 2011 “Microbial characterization of white mats in a hydrothermally influenced, sulfur-rich brine pool off Panarea Island”
- Katja Nitzsche, M.S. thesis committee member, University of Bremen (Germany), 2010. “Microbial diversity of hydrothermally influenced sediments off the coast of Milos Island, Greece”

List of Publications

Submitted or in revision:

Bastianoni, A., Cascone, M., de Moor, J.M., Barry, P.H., **Price, R.E.**, Cordone, A., Aiuppa, A., Fischer, T.P., Marty, B., Giovannelli, D., submitted to *Geochemical Perspectives Letters* August 2023. The missing carbon budget puzzle piece: shallow-water hydrothermal vents contribution to global CO₂ fluxes. Available as a preprint: <https://eartharxiv.org/repository/view/4680/>.

Popall, R.M.; Hennart, M.; Marre, S.; Peyret, P.; **Price, R.E.**; Postec, A.; Erauso, G.; In prep. Carbon fixation and assimilation by autotrophic and heterotrophic foundation species in the serpentinite-hosted Prony Bay.

Popall, R.M.; Roland, A.; Davidson, S.; Combet-Blanc, Y.; **Price, R.E.**; Postec, A.; Erauso, G.; In prep. Cultivating hydrogenotrophic microbial communities from the serpentinite-hosted Prony Bay on different carbon sources

Book Chapters

Giovannelli, D., and **Price, R. E.**, 2019, Marine Shallow-Water Hydrothermal Vents: Microbiology, *in* Cochran, J. K., Bokuniewicz, H. J., and Yager, P. L., eds., *Encyclopedia of Ocean Sciences (Third Edition)*: Oxford, Academic Press, p. 353-363.

Price, R. E., and Giovannelli, D., 2019, Marine Shallow-Water Hydrothermal Vents: Geochemistry, *in* Cochran, J. K., Bokuniewicz, H. J., and Yager, P. L., eds., *Encyclopedia of Ocean Sciences (Third Edition)*: Oxford, Academic Press, p. 346-352.

Price, R. E., and Giovannelli, D., 2017, A Review of the Geochemistry and Microbiology of Marine Shallow-Water Hydrothermal Vents, Reference Module in Earth Systems and Environmental Sciences, Elsevier.
<http://dx.doi.org/10.1016/b978-0-12-409548-9.09523-3>

Accepted or published (*student from Price lab):

49. Nancy A. Carman, Elisabeth M. Hausrath, Aaron Celestian, Julia Chavez, Ninos Hermis, Douglas E. LaRowe, Abigail Fraeman, Rachel Y. Sheppard, Christopher T. Adcock, Oliver Tschauner, Elizabeth B. Rampe, **Roy Price**, Laura M. Barge. Fe/Mg-silicate chemical gardens as analogs to silicate-rich hydrothermal chimneys on early Earth and Mars. *ACS Earth and Space Chemistry* 2024 Vol. 8 Issue 10 Pages 1982-1996

48. Gutiérrez-Ariza, C., Barge, L., Ding, Y., Cardoso, S., McGlynn, S., Nakamura, R., Giovannelli, D., **Price, R.E.**, Lee, H.E., Huertas, F., Sainz-Díaz, C., Cartwright, J., 2024. Mg silicate chimneys at Strytan hydrothermal field, Iceland as analogues for prebiotic chemistry at early Earth alkaline submarine hydrothermal vents. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*.

47. Postec, A.; Galès, G.; Prime, A-H; Bartoli, M.; **Price, R.E.**; Vandecasteele, C.; Erauso, G. 2023 accepted. *Marinitoga aeolica* sp. nov., a novel thermophilic anaerobic heterotroph isolated from a shallow hydrothermal field of Panarea Island in the Aeolian archipelago, Italy. *International Journal of Systematic and Evolutionary Microbiology*.

46. Barosa, B., Ferrillo, A., Selci, M., Giardina, M., Bastianoni, A., Correggia, M., di Iorio, L., Bernardi, G., Cascone, M., Capuozzo, R., Intocchia, M., **Price, R.E.**, Vetriani, C., Cordone, A., and Giovannelli, D., 2023, Mapping the microbial diversity associated with different geochemical regimes in the shallow-water hydrothermal vents of the Aeolian archipelago, Italy: *Frontiers in Microbiology*, v. 14.
45. Rucker*, H., Ely, T.D., LaRowe, D.E., Giovannelli, D., **Price, R.E.**, 2023. Quantifying the bioavailable energy in an ancient hydrothermal vent on Mars and a modern Earth-based analogue. Accepted, 23(5).
44. Barge, L. and **Price, R.E.**, 2022. Diverse geochemical conditions for prebiotic chemistry in shallow-sea hydrothermal vents. *Nature Geosciences Perspectives*.
- 43 Twing, K.I., Ward, L.M., Kane, Z.K., Harding, A.O.S., **Price, R.E.**, Pendleton, H.L., Giovannelli, D., Brazelton, W.J., McGlynn, S.E., accepted August 2022. Microbial Ecology of a Shallow Alkaline Hydrothermal Vent: Strýtan Hydrothermal Field, Eyjafördur, Northern Iceland. *Frontiers in Microbiology - Rising Stars in Hydrothermal Vents and Cold Seeps special issue*.
42. Kotopoulou, E., Godelitsas, A., Göttlicher, J., Steininger, R., **Price, R.E.**, Fike, D.A., Amend, J.P., Gilhooly III, W., Druschell, G., Nomikou, P., Gamaletsos, P., Lozios, S., 2022. Metastable iron (mono)sulfides in the shallow-sea hydrothermal sediments of Milos, Greece. *ACS Earth and Space Chemistry*.
41. Nyer*, S.C., **Price, R.E.**, Volkenborn, N., Graffam, M., Zhu, Q., Aller, R.C. 2021. Drivers of nitrogen dynamics in laboratory-based constructed wetlands: a closer look at plant-soil interactions. *Science of the Total Environment*. 2021 Nov 13:151560. doi: 10.1016/j.scitotenv.2021.151560.
40. Menzies, C., **Price, R.E.**, Ryan, J., Sissman, O., Takai, K., Wheat, J. in final revision step. 2021. Spatial variation of subduction zone fluids during progressive subduction: Insights from Serpentinite Mud Volcanoes: results from IODP Expedition 366. *Geochemica et Cosmochemica acta*. <https://doi.org/10.1016/j.gca.2021.10.030>
39. Clyde*, P., Brownawell, B., **Price, R.**, Venkatesan, A. 2021. Occurrence and Removal of 27 PPCPs in Onsite Wastewater Treatment Systems Employing Two-Step Nitrogen Removal. *Water Research*. 206, 1 November 2021, 117743.
38. Monnin, C., Quéméneur, M., **Price, R.E.**, Jeanpert, J., Maurizot, P., Pelletier, B., 2021. The chemistry of hyperalkaline springs in serpentinizing environments: 1. the composition of free gases in New Caledonia compared to other springs worldwide. *Journal of Geophysical Research – Biogeosciences*. *American Geophysical Union, In press. {hal-03242378}*
37. Roberts, H., **Price, R.**, Brombach, C., Pichler, T., accepted for publication. Mercury in the Hydrothermal Fluids and Gases in Paleochori Bay, Milos, Greece. *Marine Chemistry*. 231, 103984.
36. Khimasia, A., Renshaw, C.E., **Price, R.E.**, Pichler, T., 2021. Hydrothermal flux and porewater geochemistry in Paleochori Bay, Milos, Greece. *Chemical Geology*. 571, 120188
35. Gobler, C., Waugh, S., Asato, C., Clyde*, P., Nyer, S*, Graffam, M., Brownawell, B., Venkatesan, A., Goleski, J., **Price, R.E.**, Mao, X., Russo, F., Heufelder, G., Walker, H., 2021. Removing 80-90% of nitrogen and organic contaminants with three distinct passive, lignocellulose-based on-site septic systems receiving municipal and residential wastewater. *Ecological Engineering*. 161, 106157
34. Lu, G-S., LaRowe, D., Fike, D., Druschel, G., Gilhooly III, W., **Price, R.E.**, Amend, J., 2020. Bioenergetic characterization of a shallow-sea hydrothermal vent system: Milos Island, Greece. *PLoS ONE* 15(6): e0234175. <https://doi.org/10.1371/journal.pone.0234175>.

33. Jones, J-P., Firdosy, S., Barge, L., Bescup, J., Perl, S., Zhang, X., Pate A., and **Price, R.E.**, 2020. 3D Printed Minerals as Astrobiology Analogs of Hydrothermal Vent Chimneys. *Astrobiology*. <https://doi.org/10.1089/ast.2020.2260>
32. Wehrmann, L.M., Lee, J.A., **Price, R.E.**, Heufelder, G., Walker, H.W., and Gobler, C.J., 2020. Biogeochemical sequestration of phosphorus in a two-layer lignocellulose-based soil treatment system. *Journal of Sustainable Water in the Built Environment*. 6 (2), 04020002
31. Fryer, P., C. Geoffrey Wheat, Trevor Williams, Christopher Kelley, Kevin Johnson, Jeffrey Ryan, Walter Kurz, John Shervais, Elmar Albers, Barbara Bekins, Baptiste Debret, Jianghong Deng, Yanhui Dong, Philip Eickenbusch, Emanuelle Frery, Yuji Ichiyama, Raymond Johnston, Richard Kevorkian, Vitor Magalhaes, Simone Mantovanelli, Walter Menapace, Catriona Menzies, Katsuyoshi Michibayashi, Craig Moyer, Kelli Mullane, Jung-Woo Park, **Roy Price**, Olivier Sissmann, Shino Suzuki, Ken Takai, Bastien Walter, Rui Zhang, Diva Amon, Deborah Glickson, Shirley Pomponi. 2020. Mariana serpentinite mud volcanism exhumes subducted seamount materials: implications for the origin of life. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 378. <http://doi.org/10.1098/rsta.2018.0425>
30. Sissmann, O.; **Price, R.E.**, Elvert, M.; Heuer, V.B., Prieto, X., Monnin, C., Rouchon, V., Noirez, S., Beaumont, V., Ammouial, J., Kohler, E., Menzies, C., Ryan, R., Takai, K. 2019. Conference Paper (not peer reviewed). Abiogenic formation of H₂, light hydrocarbons and other short-chain organic compounds within the serpentinite mud volcanoes of the Marianna Trench. *E3S Web of Conferences* 98, 02011. <https://doi.org/10.1051/e3sconf/20199802011> WRI-16
29. Duran-Toro, V.; **Price, R.E.**; Maas, M.; Brombach, C.; Pichler, T.; Rezwan, K.; Bühring, S. (2019). Amorphous arsenic sulfide nanoparticles in a shallow water hydrothermal system. *Marine Chemistry*, 211. <https://www.sciencedirect.com/science/article/pii/S0304420318303104>
28. Debret, B., Albers, E., Walter, B., **Price, R.E.**, Barnes, J., Beunon, H., Facq, S., Gillikan, D., Mattielli, M., Williams, H., (2019). Shallow forearc mantle dynamics and geochemistry: New insights from IODP Expedition 366. *Lithos*. 326-327. DOI:10.1016/j.lithos.2018.10.038
27. Wheat, C.G.; Fournier, T.; Paul, C.; Menzies, C.; **Price, R.E.**; Ryan, J.; Sissman, O.; 2018. IODP Expedition 366 pore water trace element (V, Mo, Rb, Cs, U, Ba, and Li) compositions: *Data Report. Volume 366 of the Proceedings of the International Ocean Discovery Program*.
26. Fryer, P., Wheat, C.G., Williams, T., and the Expedition 366 Scientists, 2018. *Mariana Convergent Margin and South Chamorro Seamount. Proceedings of the International Ocean Discovery Program*, 366: College Station, TX (International Ocean Discovery Program). <https://doi.org/10.14379/iodp.proc.366.2018>
- 25. Price, R.E.**, Boyd, E.S., Hoehler, T.M., Wehrmann, L., Bogason, E., Valtýsson, H., Örlygsson, J., Gautason, B., Amend, J. (2017) Alkaline vents and steep Na⁺ gradients from ridge-flank basalts—Implications for the origin and evolution of life. *Geology*, v.45 (12).
24. Fryer, P., Wheat, G., Williams, T., and the Expedition 366 Scientists, 2017. *Expedition 366 Preliminary Report: Mariana Convergent Margin and South Chamorro Seamount*. International Ocean Discovery Program. <http://dx.doi.org/10.14379/iodp.pr.366.2017>
23. Waugh, S. **Price, R.E.**, Mao, X., Langlois, K., Roberts, S., Graffam, M., Clyde, P., Collier, J., Gobler, C., Walker, H., Garvey, J., (2017). Nitrogen-removing biofilters for on-site wastewater treatment in Long Island: Current and Prospects. *Clear Waters Journal. New York Water Environmental Association*. 47 (2), 45-48.

22. Sollich, M; Yoshinaga M.Y.; Häusler, S; **Price, R.E.**; Hinrichs, K-U; Bühring, S.I. (2017). Heat stress dictates microbial lipid composition along a thermal gradient in marine sediments. *Frontiers in Microbiology*, v. 8, article 1550. doi: 10.3389/fmicb.2017.01550.
21. **Price, R.E.**, Breuer, C., Reeves, E., Bach, W., Pichler, T., 2016. Arsenic bioaccumulation and biotransformation in deep-sea hydrothermal vent organisms from the PACMANUS hydrothermal field, Manus Basin, PNG. *Deep Sea Research I*, 117, 95-106.
20. Godelitsas, A.; **Price, R.E.**; Pichler, T.; Amend, J.; Gamaletsos, P.; Goettlicher, J., 2015. Amorphous As-sulfide precipitates from the shallow-water hydrothermal vents off Milos Island (Greece), *Marine Chemistry*. 177, 5.
19. **Price, R.E.**, LaRowe, D.; Italiano, F.; Savov, I.; Pichler, T.; and Amend, J.P.; 2015. Subsurface hydrothermal processes and the bioenergetics of chemolithoautotrophy at the shallow-sea vents off Panarea Island (Italy). *Chemical Geology*. 407-408.
18. Engel, B.E; Hallock, P; **Price, R.E.**; and Pichler, T.; 2015. Shell dissolution in larger benthic foraminifers exposed to pH and temperature extremes: Results from an in situ experiment. *Journal of Foraminiferal Research*. 45, 2.
17. Gilhooly III, W.P.; Fike, D.A.; Druschel, D.K.; Kafantaris, F-C.; **Price, R.E.**; Amend, J.P., 2014. Sulfur and oxygen isotope insights into sulfur cycling in shallow-sea hydrothermal vents, Milos, Greece. *Geochemical Transactions*. 15, 12.
16. **Price, R.E.**; Lewsniewski, R.; Nitsche, K; Meyerdierks, A.; Saltikov, C.; Edwards, K.; Pichler, T.; and Amend, J.P., 2013. Archaeal and Bacterial diversity in an arsenic-rich shallow-sea hydrothermal vent system undergoing phase separation. *Frontiers in Microbiology*, Special Issue “Hydrothermal Microbial Ecosystems”. 4, 158.
15. Bayraktarov, E.; **Price, R.E.**; Ferdelman, T.G.; and Finster, K.; 2013. The pH and pCO₂ dependence of sulfate reduction in shallow submarine hydrothermal CO₂ – venting sediments (Milos Island, Greece). *Frontiers in Microbiology*, 4, 111.
14. **Price, R.E.**; Savov, I.; Planer-Friedrich, B.; Bühring, S.; Amend, J.; and Pichler, T.; 2013. Processes influencing extreme As enrichment in shallow-sea hydrothermal fluids of Milos Island, Greece. *Chemical Geology*, 348
13. **Price, R.E.**; London, J.; Wallschläger, D.; Ruiz-Chancho, M.J.; and Pichler, T.; 2013. Enhanced bioaccumulation and biotransformation of As in coral reef organisms surrounding a marine shallow-water hydrothermal vent system. *Chemical Geology*, 348.
12. Ruiz-Chancho, M.J.; Pichler, T.; and **Price, R.E.**; 2013. Arsenic occurrence and speciation in *Cyclope neritea*, a gastropod inhabiting the arsenic-rich marine shallow-water hydrothermal system off Milos Island, Greece. Special Issue: Geothermal Arsenic in *Chemical Geology*. 348.
11. Meyer-Dombard, D.R., **Price, R.E.**, Pichler, T., and Amend, J.P., 2012. Prokaryotic populations in heated, arsenic-rich sediments of a shallow-sea hydrothermal system, Ambitle Island, Papua New Guinea. *Geomicrobiology Journal*. 29, 1-17.
10. Pichler, T.; **Price, R.**; Lazareva, O.; and Dippold, A., 2011. Determination of arsenic concentration and distribution in the Floridan Aquifer System. *Journal of Geochemical Exploration*. 111(3), 84-96.
9. Akerman, N.; **Price, R.E.**; Pichler, T.; Amend, J.P., 2011. Energy sources for chemolithotrophs in an arsenic- and iron-rich shallow-sea hydrothermal system. *Geobiology*. 9(5), 436-445.
8. Karlen D.J., **Price R.E.**, Pichler T. and Garey, J.R., 2010. Changes in Benthic Macrofauna associated with a

Shallow-water Hydrothermal Vent Gradient in Papua New Guinea. *Pacific Science*. 64(3), 391-404

7. **Price, R.E.**, and Pichler, T., 2009. Measuring toxic elements and toxicity in marine shallow-water hydrothermal systems. In: B. Merkel and M. Schipek (Editors), *Research in Shallow Marine and Fresh Water Systems*. Technische Universitaet Freiberg, Freiberg, Germany, pp. 82-86
6. Kopf, A., R. Apprioual, J. Blandin, J.-P. Brulport, P. Crassous, T. Fleischmann, A. Förster, G. Guyader, S. Hammerschmidt, P. Henry, R. Jacinto Silva, J. Legrand, A. Mayer, S. Pape, P. Pelleau, P. Pichavant, T. Pichler, **R.E. Price**, M. Seydel, S. Stegmann, K. Weber, 2009. REPORT AND PRELIMINARY RESULTS OF POSEIDON CRUISE P386: NAIL (Nice Airport Landslide), Berichte aus dem Fachbereich Geowissenschaften der Univ. Bremen, No. 271: 161pp
5. **Price, R.E.**, Pichler, T., and Amend, J.P., 2007. Enhanced geochemical gradients in a marine shallow-water hydrothermal system: Unusual arsenic speciation in horizontal and vertical pore water profiles. *Applied Geochemistry*, 22, 2595-2605. Special issue on Gradients: Microbes, Methods, and Measurements.
4. **Price, R. E.** and Pichler, T., 2006. Abundance and mineralogical association of arsenic in the Suwannee Limestone (Florida): implications for arsenic release during water-rock interaction. *Chemical Geology*, 228 (1-3), pp. 44-56
3. Pichler, T., Amend, J., Garey, J., Hallock, P., Hsia, N., Karlen, D., McCloskey, B., Meyer-Dombard, D. and **Price, R.**, 2006. A Natural Laboratory to Study Arsenic Geobiocomplexity. *EOS*, v. 87-23, pp. 221-25.
2. **Price, R. E.** and Pichler, T. 2005. Distribution, speciation and bioavailability of arsenic in a shallow-water submarine hydrothermal system, Tutum Bay, Ambitle Island, PNG. Invited paper for special issue of *Chemical Geology*; 224, pp. 122-135
1. McCarthy, K.T.; Pichler, T.; and **Price, R.E.**; 2005. Geochemistry of Champagne Hot Springs Shallow Hydrothermal Vent Field and Associated Sediments, Dominica, Lesser Antilles. *Chemical Geology*. 224, pp. 55-68

Presentations (Since 2016 only; * = Invited)

- J Chavez, LM Barge, **RE Price**, A Khodayari, J Weber, D VanderVelde. Laboratory-Grown Hydrothermal Chimneys Simulating Saponite-Rich Hydrothermal Systems and Role in Organic Compound Adsorption 2024 Astrobiology Science Conference.
- N Carman, E Hausrath, AJ Celestian, J Chavez, N Hermis, D LaRowe, **R.Price**....The Mineralogy of Laboratory Simulated Hydrothermal Vents as Analogs to Saponite-Rich Hydrothermal Environments on Early Earth and Mars 2024 Astrobiology Science Conference.
- RE Price**, G Erauso, J Labidi, BS Lollar, M Quéméneur, A Postec, ...Methane cycling in the Prony Bay Hydrothermal Field, New Caledonia: insights from clumped CH₄ isotopologues and 14C-CH₄ 2024 Astrobiology Science Conference.
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