

SAMANTHA C. YING

Department of Environmental Sciences - University of California-Riverside
 samying@ucr.edu · Phone (951) 827-4505 · Fax (951) 827-3993
<http://envisci.ucr.edu/faculty/ying.html> · ucrsoils.weebly.com

APPOINTMENTS

- 2015- *Assistant Professor (Step V)* of Biogeochemistry, Environmental Sciences Department, University of California-Riverside, Riverside, CA
- 2015- *Participating faculty*, Environmental Toxicology Graduate Program, University of California-Riverside, Riverside, CA
- 2020- *Co-director*, UC Global Health Institute Planetary Health Center
- 2016-2020 *Deputy Director*, UC Global Health Institute Planetary Health Center
- 2012-2015 *Postdoctoral Researcher*, Woods Institute for the Environment, Stanford University, Stanford, CA

EDUCATION

- 2011 Stanford University
Ph.D. in Environmental Biogeochemistry, Environmental Earth System Sciences
- 2006 Hopkins Marine Center
Microbial Diversity Summer Course
- 2004 University of California, Santa Barbara
B.S. in Medical Microbiology
- 2004 University of California, Santa Barbara
B.S. in Physical Geography

GRANTS & FELLOWSHIPS

- 2020-2022 NIEHS R21 Parent Call
Human exposure and vulnerability to manganese contaminated groundwater (PI; \$224,680 direct)
- 2020-2023 USDA NIFA AFRI Foundational Grant Program
Incentivizing and developing best practices to enhance groundwater supply and quality with managed recharge of non-traditional water sources (co-PI; \$105,068 direct)
- 2021-2022 Health Disparities Research Center at UC Riverside FIRST grants

2021-2022	<p><i>Could replenishing California's groundwater adversely affect water quality and disadvantaged communities?</i> (PI; \$23,000 direct)</p> <p>Health Disparities Research Center at UC Riverside</p> <p><i>Field testing to determine best practices for community-accessible remediation of soil contamination to reduce metal exposures</i> (co-PI, lead-PI is graduate student Danielle Stevenson; \$50,000 direct)</p>
2020-2023	<p>CDFA Special Crop Block Grant Program</p> <p><i>Toward a Circular Economy: From Agricultural Waste to Sustainable Citrus Production Through Microbe-Mediated Processes</i> (PI; \$446,401 direct)</p>
2019-2020*	<p>Fulbright U.S. Scholar Grant (Visiting scholar at University of São Paulo, Brazil)</p> <p><i>The fate of metals from the biggest environmental disaster in Brazil's history</i> (PI; \$22,400 direct) *Travel postponed till 2022 due to COVID-19 pandemic</p>
2020-2021	<p>California Citrus Nursery Society</p> <p><i>Toward a Circular Economy: From agricultural waste to sustainable indoor citrus production through microbe-mediated processes.</i> (co-PI; \$46,680 direct)</p>
2017-2018	<p>UCR Faculty Regents Fellowship</p> <p><i>Vanadium contamination of groundwater</i> (PI; \$6,000 direct)</p>
2017-	<p>UC Global Health Institute</p> <p>Planetary Health Center of Expertise (Co-PI; \$800,000 direct; annually renewed)</p>
2016-2019	<p>UCOP President's Research Catalyst Award</p> <p><i>UC Consortium for Drought and Carbon Management</i> (PI: \$1,690,000 direct total for 5 campuses. UCR: \$539,596 total; 1/2016-12/2019)</p>
2016-2019	<p>USDA W4170 Multi-state Research Project</p> <p><i>Beneficial Reuse of Residuals and Reclaimed Water: Impact on Soil Ecosystem and Human Health</i> (\$51,000 direct)</p>
2010-2011	The Lou Henry Hoover Fellowship, Stanford University
2006-2009	US Environmental Protection Agency Science to Achieve Results (STAR) Graduate Fellowship
2009-2010	The William Warren Orcutt Memorial Fellowship, Stanford University
2007, 2010	Student Travel Grant, American Society for Microbiology 107 th Annual Conference
2005, 2010	School of Earth Sciences, McGee Grant, Stanford University
2002-2003	National Science Foundation Research Experience for Undergraduates (NSF-REU), Materials Research Laboratory, UC Santa Barbara
2002	Jack and Laura Dangermond Undergraduate Fellowship, UC Santa Barbara

PUBLICATIONS

PEER-REVIEWED ARTICLES

1. Fakhreddine, S., Prommer, H., Scanlon, B., **Ying, S.C.**, Nicot, J. *In Press*. Mobilization of arsenic and other naturally occurring contaminants during managed aquifer recharge: A critical review. *Environmental Science & Technology*. DOI: 10.1021/acs.est.0c07492

2. Avasarala, S., Orta, J., Schaefer, M., Abernathy, M., **Ying, S.C.**, & Liu, H. (2020). Effects of residual disinfectants on the redox speciation of lead (II)/(IV) minerals in drinking water distribution systems. *Environmental Science: Water Research & Technology*. DOI: 10.1039/D0EW00706D
3. Pagliaccia, D., Bodaghi, S., Chen, X., Stevenson, D., Deyett, E., De Francesco, A., Borneman, J., Ruegger, P., Peacock, B., Ellstrand, N., Rolshausen, P.E., Popa, R., **Ying, S.C.**, Vidalakis, G. (2020). Two food waste by-products selectively stimulate beneficial resident citrus host-associated microbes in a zero-runoff indoor plant production system. *Frontiers in Sustainable Food Systems*, 4, 258. Ying and Vidalakis labs contributed equally. DOI: 10.3389/fsufs.2020.593568
4. Queiroz, H.M., **Ying, S.C.**, Abernathy, M., Barcellos, D., Gabriel, F.A., Otero, X.L., Nobrega, G.N., Bernadino, A.F., Ferreira, T.O. (2020). Manganese: The overlooked contaminant in the world largest mine tailings dam collapse. *Environment International*, 146, 106284. DOI: 10.1016/j.envint.2020.106284
5. Jones, M. E., LaCroix, R. E., Zeigler, J., **Ying, S.C.**, Nico, P. S., & Keiluweit, M. (2020). Enzymes, Manganese, or Iron? Drivers of Oxidative Organic Matter Decomposition in Soils. *Environmental Science & Technology*, 54(21), 14114-14123. DOI: 10.1021/acs.est.0c04212
6. Schaefer, M. V., Plaganas, M., Abernathy, M. J., Aiken, M. L., Garniwan, A., Lee, I., & **Ying, S.C.** (2020). Manganese, arsenic, and carbonate interactions in model oxic groundwater systems. *Environmental Science & Technology*, 54(17), 10621-10629. DOI: 10.1021/acs.est.0c02084
7. Chen, J., van Groenigen, K. J., Hungate, B. A., Terrer, C., van Groenigen, J. W., Maestre, F. T., **Ying, S.C.**, Luo, Y., Jørgensen, U., Sinsabaugh, J.E., Olesen, J.E., Elsgaard, L. (2020). Long-term nitrogen loading alleviates phosphorus limitation in terrestrial ecosystems. *Global Change Biology*, 26(9), 5077-5086. DOI: 10.1111/gcb.15218
8. Sapkota, A., Haghverdi, A., Avila, C., & **Ying, S.C.** (2020). Irrigation and Greenhouse Gas Emissions: A Review of Field-Based Studies. *Soil Systems*, 4(2), 20. DOI: 10.3390/soilsystems4020020
9. Tian, S., Li, K., Møller, P., **Ying, S.C.**, Wang, L., Li, Z., Rousgaard, M., Liang, T. (2020). Assessment of reactive oxygen species production and genotoxicity of rare earth mining dust: Implications for public health and mining management. *Science of The Total Environment*, 740, 139759. DOI: 10.1016/j.scitotenv.2020.139759
10. Schaefer, M. V., Bogie, N. A., Rath, D., Marklein, A. R., Garniwan, A., Haensel, T., Lin, Y., Avila, C.C., Nico, P.S., Scow, K.M., Brodie, E.L., Riley, W.J., Fogel, M.L., Berhe, A.A., Ghezzehei, T.A., Parikh, S., Keiluweit, M., **Ying, S.C.** (2020). Effect of Cover Crop on Carbon Distribution in Size and Density Separated Soil Aggregates. *Soil Systems*, 4(1), 6. DOI: 10.3390/soilsystems4010006
11. Frie, A. L., Garrison, A. C., Schaefer, M. V., Bates, S. M., Botthoff, J., Maltz, M., **Ying, S.C.**, Lyons, T., Allen, M.F., Aronson, E., Bahreini, R. (2019). Dust sources in the Salton Sea basin: a clear case of an anthropogenically impacted dust budget. *Environmental science & technology*, 53(16), 9378-9388. DOI: 10.1021/acs.est.9b02137

12. Zhuang, W., **Ying, S. C.**, Frie, A. L., Wang, Q., Song, J., Liu, Y., Chen, Q., Lai, X. (2019). Distribution, pollution status, and source apportionment of trace metals in lake sediments under the influence of the South-to-North Water Transfer Project, China. *Science of The Total Environment*, 671, 108-118. DOI: 10.1016/j.scitotenv.2019.03.306
13. Sartor, L. R., Graham, R. C., **Ying, S. C.**, Andrade, G. R., Montes, C. R., & Ferreira, T. O. (2019). Are hypersaline tidal flat soils potential silicon sinks in coastal wetlands? *Geoderma*, 337, 215-224. DOI: 10.1016/j.geoderma.2018.08.028
14. Mock, R. P., Schaefer, M. V., Pacheco, J. L., Lake, L., Lee, I., & **Ying, S. C.** (2019). Influence of Fe (II) on Arsenic (III) Oxidation by Birnessite in Diffusion-Limited Systems. *ACS Earth and Space Chemistry*, 3(4), 550-561. DOI: 10.1021/acsearthspacechem.8b00184
15. Jones, M. E., Nico, P. S., **Ying, S.C.**, Regier, T., Thieme, J., & Keiluweit, M. (2018). Manganese-driven carbon oxidation at oxic-anoxic interfaces. *Environmental science & technology*, 52(21), 12349-12357. DOI: 10.1021/acs.est.8b03791
16. Sartor, L. R., Graham, R. C., **Ying, S. C.**, Otero, X. L., Montes, C. R., & Ferreira, T. O. (2018). Role of Redox Processes in the Pedogenesis of Hypersaline Tidal Flat Soils on the Brazilian Coast. *Soil Science Society of America Journal*, 82(5), 1217-1230. DOI: 10.1016/j.geoderma.2018.08.028
17. Cong, W., Meng, J., & **Ying, S. C.** (2018). Impact of soil properties on the soil methane flux response to biochar addition: a meta-analysis. *Environmental Science: Processes & Impacts*, 20(9), 1202-1209. DOI: 10.1039/C8EM00278A
18. Schaefer, M. V., Shantz, A., Fendorf, S., & **Ying, S. C.** (2018). Arsenic leaching from ceramic water filters. *Environmental Science: Water Research & Technology*, 4(2), 234-240. DOI: 10.1039/c7ew00176b
19. **Ying, S. C.**, Schaefer, M. V., Cock-Esteb, A., Li, J., & Fendorf, S. (2017). Depth stratification leads to distinct zones of manganese and arsenic contaminated groundwater. *Environmental Science & Technology*, 51(16), 8926-8932. DOI: 10.1021/acs.est.7b01121
20. Frie, A. L., Dingle, J. H., **Ying, S. C.**, & Bahreini, R. (2017). The effect of a receding saline Lake (the Salton Sea) on airborne particulate matter composition. *Environmental science & technology*, 51(15), 8283-8292. DOI: 10.1021/acs.est.7b01773
21. Schaefer, M. V., **Ying, S. C.**, Benner, S. G., Duan, Y., Wang, Y., & Fendorf, S. (2016). Aquifer arsenic cycling induced by seasonal hydrologic changes within the Yangtze River basin. *Environmental science & technology*, 50(7), 3521-3529. DOI: 10.1021/acs.est.5b04986
22. **Ying, S. C.**, Damashek, J., Fendorf, S., & Francis, C. A. (2015). Indigenous arsenic (V)-reducing microbial communities in redox-fluctuating near-surface sediments of the Mekong Delta. *Geobiology*, 13(6), 581-587. DOI: 10.1111/gbi.12152

23. **Ying, S. C.**, Masue-Slowey, Y., Kocar, B. D., Griffis, S. D., Webb, S., Marcus, M. A., ... & Fendorf, S. (2013). Distributed microbially-and chemically-mediated redox processes controlling arsenic dynamics within Mn-/Fe-oxide constructed aggregates. *Geochimica et Cosmochimica Acta*, *104*, 29-41. DOI: 10.1016/j.gca.2012.08.020
24. Masue-Slowey, Y., **Ying, S. C.**, Kocar, B. D., Pallud, C. E., & Fendorf, S. (2013). Dependence of arsenic fate and transport on biogeochemical heterogeneity arising from the physical structure of soils and sediments. *Journal of environmental quality*, *42*(4), 1119-1129. DOI: 10.2134/jeq2012.0253
25. **Ying, S. C.**, Kocar, B. D., & Fendorf, S. (2012). Oxidation and competitive retention of arsenic between iron-and manganese oxides. *Geochimica et Cosmochimica Acta*, *96*, 294-303. DOI: 10.1016/j.gca.2012.07.013
26. Wilcox, J., Rupp, E., **Ying, S. C.**, Lim, D. H., Negreira, A. S., Kirchofer, A., ... & Lee, K. (2012). Mercury adsorption and oxidation in coal combustion and gasification processes. *International Journal of Coal Geology*, *90*, 4-20. DOI: 10.1016/j.coal.2011.12.003
27. **Ying, S. C.**, Kocar, B. D., Griffis, S. D., & Fendorf, S. (2011). Competitive microbially and Mn oxide mediated redox processes controlling arsenic speciation and partitioning. *Environmental science & technology*, *45*(13), 5572-5579. DOI: 10.1021/es200351m
28. Kocar, B. D., Polizzotto, M. L., Benner, S. G., **Ying, S. C.**, Ung, M., Ouch, K., ... & Fendorf, S. (2008). Integrated biogeochemical and hydrologic processes driving arsenic release from shallow sediments to groundwaters of the Mekong delta. *Applied Geochemistry*, *23*(11), 3059-3071. DOI: 10.1016/j.apgeochem.2008.06.026

In Review or Revision

29. Zhuang, W., Song, J., **Ying, S.C.** *In Revision*. Retention of Thallium by Natural Minerals: A Review. *Science of the Total Environment*.
30. Abernathy, M.J., Schaefer, M.V., Liu, H., **Ying, S.C.** *In Review*. Rates and products of vanadium(IV) oxidation by birnessite. *Environmental Science & Technology*.
31. Schaefer, M.V., Abernathy, M.J., Nguyen, D., Cornell, T., **Ying, S.C.** *In Review*. Firing increases arsenic leaching from ceramic water filters via arsenic and iron phase transformations. *Environmental Science & Technology*.
32. Queiroz, H.M., **Ying, S.C.**, Bernardino, A.F., Barcellos, D., Nóbrega, G.N., Otero, X.L., Ferreira, T. *In Review*. Role of Fe dynamics in release of metals at Rio Doce estuary: unfolding of a mining disaster. *Marine Pollution Bulletin*.

NON-PEER REVIEWED VIEWPOINTS

33. Ramachandran, M., Schwabe, K., **Ying, S.C.** *In Revision*. Shallow groundwater manganese merits deeper consideration. *Environmental Science & Technology*.

SERVICE

COLLEGE AND UNIVERSITY SERVICE

- 2021-2024 **Member**, Committee on Committees, UC Riverside Faculty Senate
 2018-2021 **Member**, Executive Committee, College of Natural and Agricultural Sciences
 2020- **Member**, JEDI Committee, College of Natural and Agricultural Sciences
 2019- **Board member**, Riverside Faculty Association
 2020- **Member**, BLM Taskforce, UC Global Health Institute
 2018-2019 **Faculty member**, Research and Economic Development Committee
 2016-2018 **Faculty committee member**, University Awards and Honors Committee, UC Riverside
 2015- **Faculty Mentor**, UC Riverside RISE and BRIDGE program
 2015- **Faculty Mentor**, UC Riverside HSI STEM Pathway Program
 2015-2017 **Faculty advisor**, UCR Soil Science Club
 2015- **Faculty member**, California Agriculture and Food Enterprise (CAFÉ) Institute

DEPARTMENT SERVICE

- 2020- **Co-Chair**, DEI Committee, Environmental Sciences Department
 2015-2017 **Member and Chair**, Committee on Undergraduate and Graduate Awards
 2015-2017 **Member**, Undergraduate curriculum committee
 2016-2018 **Member**, Graduate curriculum committee
 2016-2017 **Member**, Graduate admissions committee

EDITORIAL SERVICES

- 2017-2023 **Associate Editor**, Journal of Environmental Quality, 2017-
 2020-2023 **Associate Editor**, Journal of the Science of Food and Agriculture, 2020-

PROFESSIONAL SERVICE

- 2019-2020 **Chair**, Soil Science Society of America (SSSA) Soil Chemistry Division
 2016- **Co-Founder**, *Food&Drink* for Thought Women in soil science network
 2016- **Session Organizer**, Goldschmidt Conference Annual Meeting
 2016- **Session Organizer**, SSSA Annual Meeting, Division of Soil Chemistry
 2018-2020 **Chair**, Graduate student awards committee SSSA Annual Meeting, Division of Soil Chemistry
 2017- **Member**, Graduate student awards committee SSSA Annual Meeting, Division of Soil Chemistry
 2018 **Member**, Dellavalle Soil Science Scholarship Committee, Soil Science Society of America

2019 **Costa Mesa Pod Member**, 500 Women Scientists Organization

TEACHING

- 2016- ENSC 104, Environmental Soil Chemistry, **Instructor**, Environmental Sciences, UC Riverside
Quantitative study of the chemistry of the solid, liquid, and gas phases in soils and sediments. Topics include solid and solution speciation, mineral solubility, ion exchange and adsorption reactions, oxidation-reduction, and the chemistry of organic contaminants and toxic trace elements in soils.
- 2015- ENSC 100, Introduction to Soil Science, **Instructor**, Environmental Sciences, UC Riverside
Explores the fundamental principles of soil science and soils as a natural resource. Introduces the morphology, physics, chemistry, microbiology, fertility, classification, development, and management of soils in relation to the environment.
- 2016- NASC 093, Freshman Advising Seminar in the Natural and Agricultural Sciences, **Instructor**, Environmental Sciences, UC Riverside
Introduction to UCR for students in the sciences. Includes selection of majors, curriculum planning, career options and goals in the sciences, opportunities for undergraduate research, development of learning and study skills, ethics in research and education, and an introduction to the faculty and professional academic advisors in CNAS.
- 2015 ENSC 232, Biogeochemistry, **Instructor**, Environmental Sciences, UC Riverside
Biogeochemical cycles emphasizing redox processes controlling C, N, S, and trace metals dynamics in terrestrial systems. Give two 75 minute lectures per week plus one 60 minute recitation section. Graduate course.
- 2014 EESS 156/256, Soil and Water Chemistry, **Instructor**, Environmental Earth System Sciences, Stanford University
Fate and transport of contaminants and nutrients in soil environments along with defining chemical composition of soil materials. Give two 75 minute lectures per week plus one 60 minute recitation section. Design and grade weekly homework assignments.
- 2015 Food, Water, and War: Life on the Mekong, Bing Overseas Studies Program, **Guest Instructor**, Stanford University. Offered August 2015
Three-week summer field course in Cambodia with fifteen undergraduate students. Students learn about water quality issues, carbon cycling and deforestation in the tropics along with overview of Khmer culture, history, and political and societal struggles.

- 2012 THINK 3, Breaking Codes and Finding Patterns, **Thinking Matters Freshmen Series Lecturer**, Vice Provost for Undergraduate Education, Stanford University (Evaluations and Syllabus available)
Introduction to the history and mathematical basis of cryptography. Gave lectures twice a week (two sections), formulated and graded weekly in-class activities, assignments, essays, and exams. Met with each student individually for twenty minutes outside of office hours every three weeks to assess progress.
- 2012 EESS 256, Soil and Water Chemistry, **Teaching Assistant**, Environmental Earth System Science, Stanford University (Syllabus available)
Organized and lead discussions, graded assignments, held office hours weekly and by appointment.
- 2006 GES 268, Geomicrobiology, **Teaching Assistant**, Geological and Environmental Sciences, Stanford University (Syllabus available)
Introductory course to the role of microbes in geology and environmental processes. Lead discussions, graded weekly assignments, and held weekly office hours.
- 2005 GES 265, Microbially Mediated Redox Processes, **Teaching Assistant**, Geological and Environmental Sciences, Stanford University (Syllabus available)
Introduction to microbial redox processes in soil and water. Provided review sessions and additional individual tutoring to students without biology background, lead discussions, formulated and graded weekly assignments and exams, held office hours weekly and by appointment.
- 2002 Introduction to Geographic Information Systems, **Instructor**, Center for the Spatially Integrated Social Sciences Summer Workshop, UC Santa Barbara
Introductory lab course on basic functions in ArcGIS. Designed course materials and website and co-taught one week hands-on workshop for social science researchers and professors interested in using spatial data analysis in their research.
- 2001 CHEM 106B, Fundamentals of Organic Chemistry II, **Lecturer**, Chemistry and Biochemistry, UC Santa Barbara
Structure, nomenclature, stereochemistry, and reactivity of organic molecules. Gave two 1-hour recitation lectures per week to class of 65 each. Formulated weekly in-class assignments, graded biweekly assignments, midterms, and final exams.

OTHER TEACHING

- 2010-2014 **Geokids instructor**, School of Earth Science, Stanford University
- 2012-2013 **Volunteer tutor** for Cañada College students at East Palo Alto Public Library.
Math 241 Applied Calculus I; Anth 125 Physical Anthropology; Eng 100 Reading and Composition

INVITED RESEARCH SEMINARS

- 2020 A silent killer: under-recognized contaminant and driver of contaminant cycles. Soil and Plant Nutrition Postgraduate Program Seminar. Universidade de São Paulo, Piracicaba, Brazil.
- 2020 Does replenishing California's groundwater adversely affect water quality and disadvantaged communities? Health Disparities Research Center BFF Seminar Series. UC Riverside, Riverside, CA
- 2019 An under-recognized contaminant and driver of contaminant cycles. Keck Science Department Seminar. Claremont Colleges, Claremont, CA.
- 2019 A (Biogeochemical) story about the multi-scale carbon dynamics at an irrigated farm Conference Presentations. Botany and Plant Science Department Seminar. UC Riverside, Riverside, CA.
- 2019 Manganese: An under-recognized contaminant and driver of contaminant cycles. Keck Science Department Seminar. Claremont Colleges, Claremont, CA.
- 2019 Two food waste byproducts selectively stimulate beneficial resident host-associated microbes in a greenhouse plant production system with recirculating nutrient solution. UCR microbiome initiative 3rd annual symposium.
- 2019 Pick your poison: The combined impact of arsenic and manganese groundwater contamination
- 2018 Soil biogeochemical cycles underlying the largest mass poisoning in human history. Joint Stockbridge School of Agriculture & BRIDGE2Science Lecture

INVITED OUTREACH SEMINARS

- 2020 Non-linear paths to a science career you love. College of Natural and Agricultural Sciences Applied Sciences Workshop. UC Riverside, CA
- 2019 When I grow up...An unexpected path through science and academia as a single parent. Bridge2Impacts Seminar Series. University of Massachusetts, Amherst
- 2015 Why I am a soil biogeochemist. College of Natural & Agricultural Sciences STEM Talk Series. UC Riverside, CA
- 2015 How to become an Environmental Scientist. AVID STEM program. Rancho Verde High School. Moreno Valley, CA.

CONFERENCE PRESENTATIONS

INCLUDES INVITED RESEARCH PRESENTATIONS

Underline denotes Ying Lab Graduate Students

**Asterix denotes undergrad or high school mentees*

SOIL & ENVIRONMENTAL BIOGEOCHEMISTRY

Ying, S.C., Masue-Slowey, Y., Webb, S., Marcus, M., Fendorf, S., Avila, C., Schaefer, M.V. Microscale variation in biogeochemical processes governing the cycling of the coolest metals. Stanford Synchrotron Users Meeting 2020, *Invited*.

in soils

- Duro, A.M.*, Avila, C.C.E. and **Ying, S.C.**, 2019, November. Soil Carbon Dynamics as a Function of Soil Moisture in a Furrow Irrigated Orange Orchard. In ASA, CSSA and SSSA International Annual Meetings (2019). ASA, CSSA, and SSSA.
- Bahreini, R., Frie, A.L., Garrison, A., Schaefer, M.V., Bates, S.M., Botthoff, J., Maltz, M., **Ying, S.**, Lyons, T., Allen, M.F. and Aronson, E.L., 2019, December. Sources of Atmospheric Dust Particles in California's Salton Sea Basin. In AGU Fall Meeting 2019. AGU.
- Keiluweit, M., Chin, N.A., **Ying, S.**, Nico, P.S. and Jones, M.E., 2019, December. Enzymes, iron or manganese? Drivers of organic matter decomposition in forest soils. In AGU Fall Meeting 2019. AGU.
- Marklein, A.R., Berhe, A.A.A., Bogie, N.A., Brodie, E., Ghezzehei, T.A., Grant, R.F., Liu, Y., Marin, C.C.E., Mekonnen, Z.A., Mezbahuddin, S. and Nico, P.S., **S.C Ying**. 2019, December. Modeling carbon storage and water use efficiency in a California agro-ecosystem. In AGU Fall Meeting 2019. AGU.
- Greene, A.C., **Ying, S.**, Aronson, E.L., Jenerette, D., Sickman, J.O. and Homyak, P.M., 2019, December. Nitrous oxide emissions in response to wetting dryland soils along a carbon gradient. In AGU Fall Meeting 2019. AGU.
- Ying, S.C.**, Schaefer, M.V., Abernathy, M., Aiken, M., Mock, R., Lee, I., Lake, L.* and Garniwan, A.*, 2019, November. Manganese Has Been Around d-Block: Factors Influencing Mn-Driven Enhancement and Inhibition of Contaminant Mobility at Redox Interfaces. In ASA, CSSA and SSSA International Annual Meetings (2019). ASA-CSSA-SSSA. *Invited*
- Avila, C.C., Schaefer, M.V., Nico, P.S., Dubinsky, E.A., Brodie, E., Garniwan, A., Haensel, T.*, Nguyen, D.*, Cornell, T.*, Zamora, R.*, Marklein, A., Bogie, N.A., Rath, D., **Ying, S.C.** Soil Carbon Dynamics as a Function of Soil Moisture within a Furrow Irrigated Orange Orchard. Forthcoming: SSSA International Soils Meeting, San Diego, CA, Jan. 6-9, 2019. Oral
- Haensel, T.*, Avila, C.C., **Ying, S.C.** Role of Fe-, Al-Oxides, and Calcium in Stabilizing Organic Carbon within Irrigated Orchards. *Forthcoming*: SSSA International Soils Meeting, San Diego, CA, Jan. 6-9, 2019. *Poster*
- Schaefer, M.V., Bogie, N.A., Garniwan, A.*, Haensel, T.*, Rath, D., Keiluweit, M., Nico, P.S., **Ying, S.C.** Effect of Cover Crop on Carbon Distribution in Soil Aggregates. SSSA International Soils Meeting, San Diego, CA, Jan. 6-9, 2019. *Poster*
- Bogie, N.A., Berhe, A. A., Schaefer, M.V., Avila, C.C., Dubinsky, E.A., Marklein, A.R., Rath D., Brodie E., Parikh S.J., Riley, W.J., Scow K.M., Torn M.S., Nico, P., **Ying S.C.**, Ghezzehei, T.A. The Interaction of Water Saving Technology, Soil Organic Matter, and Soil Aggregation in a Mediterranean Climate. January 6-9, 2019. International Soils Meeting, San Diego, CA.
- Marklein, A., Riley, W.J., Grant, R.J., Liu, Y., Mezbahuddin, S., Mekonnen, Z., K. Scow, **Ying, S.** Modeling applications for irrigation management in the California Central Valley, American Geophysical Union (New Orleans, LA; December 2017) *Oral*
- Schaefer, M.V., C.C. Avila, M. Abernathy, N.A. Bogie, E.A. Dubinsky, A.R. Marklein, D. Rath, A.A. Berhe, E. Brodie, T. Ghezzehei, S.J. Parikh, W.J. Riley, K.M. Scow, P. Nico, and **S.C. Ying**. 2017. Impact of Cover Crop and Irrigation Method on Soil Organic Matter Composition and Distribution. Soil Science Society of America International Meetings. October 22-25, 2017. Tampa, FL. *Oral (Not reported last year)*
- Bogie, N.A., Berhe, A. A., Schaefer, M.V., Avila, C.C., Abernathy, M., Dubinsky, E.A., Marklein, A.R., Rath D., Brodie E., Parikh S.J., Riley, W.J., Scow K.M., Torn M.S., Nico, P., **Ying S.C.**, Ghezzehei, T.A.

- Drip Irrigation to Improve Soil Aggregation and Hydro-Physical Properties. ASA- CSSA-SSSA Meeting. Tampa, FL, Oct. 22-25, 2017.
- Ying, S.C.**, C. Avila, M.V. Schaefer, A. Garniwan*, P. Nico, M. Fogel, N. Bogie, A. Marklein, D. Rath, A. Berhe, T. Ghezzehei, S. Parikh, K. Scow, E. Brodie, W. Riley, M. Torn, D. Jenerette. (2018) A biogeochemistry story: How carbon and water interact in agriculture. Iron Biogeochemistry Workshop. Lech, Austria. (Invited Oral).
- C. Avila, M.V. Schaefer, A. Garniwan*, P. Nico, M. Fogel, N. Bogie, A. Marklein, D. Rath, A. Berhe, T. Ghezzehei, S. Parikh, K. Scow, E. Brodie, W. Riley, M. Torn, D. Jenerette, **Ying, S.C.** (2018) Multi-scale dynamics of carbon cycling in orchards as a function of irrigation type. American Chemical Society Annual Meeting. New Orleans, LA. (Invited Oral)
- Ying, S.C.**, R. Mock, M. Abernathy, M.V. Schaefer, L. Lake*, I. Lee. (2018) Reactivity of manganese oxides at redox interfaces in diffusion-controlled environments. American Chemical Society Annual Meeting. New Orleans, LA. (Invited Oral)
- Ying, S.C.**, R. Mock, L. Lake*, A. Salvador, M.V. Schaefer, J. Pacheco (2017). Mn Oxide Transformation and Alteration in Contaminant Oxidation Rate in the Presence of Fe(II). ASA-CSSA-SSSA International Annual Meetings. Tampa, FL. (Invited Oral)
- M.V. Schaefer, C. Avila.,...**S. Ying**. (2017) Impact of Cover Crop and Irrigation Method on Soil Organic Matter Composition and Distribution. ASA-CSSA-SSSA International Annual Meetings. Tampa, FL. (Invited Oral)
- Avila, C.C., M.V. Schaefer, M. Abernathy, M. Plaganas*, **S.C. Ying**. (2017). Impact of Carbon Management and Irrigation Method on Metal Cycling within Semi-Arid Agricultural Soils. ASA-CSSA-SSSA International Annual Meetings. Tampa, FL. (Oral)
- Ying, S.C.** (2017). UC consortium for drought and carbon management. University of California Global Health Institute Valley Health Conference. Palm Desert, CA. (Invited Oral)
- Mock, R, Salvador, **Ying, S.C.** (2016) Oxidation of Chromium (III) and Arsenic (III) By Iron Oxide Coated Birnessite. ASA-CSSA-SSSA International Annual Meetings. Phoenix, AZ. (Oral)
- Salvador, A.K., R. Mock, K. Martinez*, A. Badalian*, **S.C. Ying** (2016). Manganese-Oxide Transformation of Vanadium in Redox-Fluctuating Soil Systems. ASA-CSSA-SSSA International Annual Meetings. Phoenix, AZ. (Poster)
- Marin, C. C. E., Sahebjami S., Plaganas, M., Martinez, K., **Ying, S.C.** (2016) Carbon and Irrigation Dynamics on Metal Mobilization in Semi-Arid Urban Agricultural Soils. ASA-CSSA-SSSA International Annual Meetings. Phoenix, AZ. (Poster)
- Marin, C. C. E., Salvador, A., Sahebjami S., Plaganas, M., Martinez, K., Tran, A., **Ying, S.C.** (2015) Metal distribution in urban agricultural soils in the Inland Empire, California. American Geophysical Union Annual Meeting. San Francisco, Ca. (Poster)
- Frie, A., J. Dingle, **S.C. Ying**, R. Bahreini. (2015) Elemental composition and Pb isotope determination in aerosols, desert soils, and playa at the Salton Sea. International Symposium on Persistent Toxic Substances. Riverside, Ca. (Poster)
- Salvador, A.K., M. V. Schaefer, K. A. Roberts, M. Keiluweit, **S.C. Ying**, S. Benner, S. Fendorf. (2015). Greenhouse gas emissions following seasonal flooding of tropical river deltas. American Geophysical Union Annual Meeting. San Francisco, Ca. (Poster)
- Marin, C. C. E., Salvador, A., Sahebjami S., Plaganas, M., Martinez, K., Tran, A., **Ying, S.C.** (2015) Metal distribution in urban agricultural soils in the Inland Empire, California. International Symposium on Persistent Toxic Substances. Riverside, Ca. (Poster)
- Ying, S.C.**, Y. Masue-Slowey, S. Fendorf. 2015. Biochemistry of arsenic cycling in redox fluctuating soils. USDA Multistate W3170 Project Meeting. Beltsville, MD. (Oral)

- Ying, S.C.**, J. Bu, R. Zhao*, Y. Wang, M.V. Schaefer, S. Fendorf. 2014. Land use change impact on redox sensitive trace metal bioavailability. ASA-CSSA-SSSA International Annual Meetings. Long Beach, CA. (Oral)
- Ying, S.C.**, D. Weiss, J. Bu, R. Zhao, Y. Gan, Y. Wang, J. Wilcox, S. Fendorf. 2014. Contribution of fly ash to trace metal contamination of Chinese croplands revealed with Q-ICP-MS. Goldschmidt Conference. Sacramento, CA. (Oral)
- Hausladen, D*, **S.C. Ying**, S. Fendorf. 2014. Dynamic interplay of microbially mediated oxidation-reduction reactions controlling chromium cycling in soils and sediments. International Symposium on Subsurface Microbiology. Asilomar, CA. (Oral)
- Ying, S.C.**, J. Bu, R. Zhao*, G.C. Li, D. Weiss, J.C. Wilcox, S. Fendorf. 2013. Arsenic, Lead, and Cadmium Contamination of Crops By Fly Ash in China. ASA-CSSA-SSSA International Annual Meetings. Tampa, Florida. *Invited*. (Oral)
- Zhao, R*, **S.C. Ying**, J. Bu, D. Weiss, Y. Gan, Y. Wang, J.C. Wilcox, E. Lambin, S. Fendorf. 2013. Distribution of coal combustion by products on croplands in China. American Geophysical Union Annual Meeting. San Francisco, CA. (Poster)
- Hausladen, D*, **S.C. Ying**, S. Fendorf. 2013. Oxidation of mixed Cr-Fe hydroxides by birnessite. ASA-CSSA-SSSA International Annual Meetings. Tampa, Florida. (Poster)
- Ying, S.C.**, S. Fendorf, E. Lambin. 2012. Deposition of heavy metals from coal combustion on agricultural lands. ASA-CSSA-SSSA International Annual Meetings. Cincinnati, Ohio. (Oral)
- Ying, S.C.**, B.D. Kocar, Y. Masue-Slowey, S. Fendorf. 2011. Unraveling the role of competitive oxidation and adsorption on arsenic cycling. ASA-CSSA-SSSA International Annual Meetings. San Antonio, TX. (Oral)
- Ying, S.C.**, B.D. Kocar, Y. Masue-Slowey, S. Fendorf. 2010. Fate of arsenic in presence of birnessite and dissimilatory metal reducing bacteria. ASA-CSSA-SSSA International Annual Meetings. Long Beach, CA. (Oral)
- Ying, S.C.**, S. Griffis*, Y. Masue-Slowey, S. Fendorf. 2010. Role of manganese oxides and dissimilatory metal-reducing bacteria in arsenic transport within aggregated soils and sediments. American Chemical Society National Meeting. San Francisco, CA. (Oral)
- Ying, S.C.**, S. Griffis*, Y. Masue-Slowey, S. Fendorf. 2010. Role of dissimilatory metal-reducing bacteria in arsenic transport within manganese and iron oxide containing aggregates. Goldschmidt Conference. Knoxville, TN. (Oral)
- Fendorf, S., Y. Masue-Slowey, B.D. Kocar, **S.C. Ying**. 2010. Biogeochemically induced mineral transformations controlling the fate of arsenic. Goldschmidt Conference. Knoxville, TN. (Oral)
- Ying, S.C.**, B.D. Kocar, Y. Masue-Slowey, C.A. Francis, S. Fendorf. 2009. Mixed mineralogical and biogeochemical controls on arsenic fate in diffusively controlled, and physically complex media. Goldschmidt Conference. Davos, Switzerland. (Oral)
- Ying, S.C.**, B.D. Kocar, Y. Masue-Slowey, S. Fendorf. 2009. Arsenic redox and distribution in diffusively controlled media. ASA-CSSA-SSSA International Annual Meetings. Pittsburgh, PA. (Oral)
- Ying, S.C.**, B.D. Kocar, C.A. Francis, S. Fendorf. 2009. Mineralogical and biogeochemical controls on arsenic fate in diffusively controlled media. Geochemistry Department Seminar. Charles University, Prague, Czech Republic. *Invited*. (Oral)
- Ying, S.C.**, Y. Masue-Slowey, B.D. Kocar, C.A. Francis, S. Fendorf. 2009. Arsenic cycling in diffusively controlled systems containing Mn and Fe oxides. F2T2 Engineering Seminar. Stanford, CA. *Invited*. (Oral)

- Ying, S.C.**, B.D. Kocar, Y. Masue-Slowey, C.A. Francis, S. Fendorf. 2009. Biogeochemical controls on arsenic transport in diffusively-controlled media. Bay Area Geochemistry Day. University of California, Berkeley, CA. *Invited*. (Oral)
- Kocar B.D., Polizzotto, M., **Ying, S.C.**, Benner, S.G., Sampson, M., Fendorf, S. 2009. Measuring and simulating the near-surface biogeochemical and hydrologic processes governing arsenic transport in the Mekong Delta, Cambodia. AGU Chapman Conference. Siem Reap, Cambodia. (Oral)
- Ying, S.C.**, B.D. Kocar, M. Ung, C.A. Francis, S. Fendorf. 2008. Competitive redox and adsorption reactions of arsenic between iron and manganese oxides. Stanford Environmental Molecular Science Institute Annual Meeting. Stanford, CA. *Invited*. (Oral)
- Ying, S.C.**, B.D. Kocar, S. Fendorf, C.A. Francis. 2007. Diversity and As-adsorption properties of Mn(II)-oxidizing bacteria within tropical wetlands of the Mekong Delta. American Geophysical Union Annual Meeting. San Francisco, CA. (Oral)
- Ying, S.C.**, B.D. Kocar, M. Ung, S. Samreth, M. Sampson, S. Fendorf, C.A. Francis. 2006. Influence of microbial manganese and iron cycling on arsenic mobility in the Mekong Delta, Cambodia. EPA STAR Fellowship Conference. Washington, D.C. (Poster)
- Kocar, B.D., **S.C. Ying**, M. Polizzotto, M. Ung, S. Samreth, M. Leng, M. Sampson, and S.Fendorf. 2006. Iron (hydr)oxide transformation and release of arsenic from tropical soils during iron and sulfate reduction. ASA-CSSA-SSSA International Annual Meetings. Indianapolis, IN. (Oral)
- Kocar, B.D., Y. Masue, K. Tufano, **S.C. Ying**, M. Polizzotto, T. Borch, and S. Fendorf. 2006. Iron (hydr)oxide transformation and release of arsenic from ferrihydrite and Cambodian sediments during sulfate reduction. World Congress of Soil Science Annual Meeting. IUSS, Philadelphia, PA. (Oral)
- Kocar, B.D., **S.C. Ying**, M. Polizzotto, M. Ung, S. Samreth, M. Leng, M. Sampson, and S. Fendorf. 2006. Arsenic retention and release from ferrihydrite and tropical soils during iron and sulfate reduction. American Geophysical Union Meeting, San Francisco, CA. (Oral)
- Kocar, B.D., **S.C. Ying**, M. Polizzotto, M. Ung, S. Samreth, M. Leng, M. Sampson, and S. Fendorf. 2006. Iron (hydr)oxide transformation and release of arsenic from tropical soils during iron and sulfate reduction. Soil Science Society of America annual meeting, Indianapolis, IN. (Oral)

GEOGRAPHY AND SPATIAL ANALYSIS

- Ung, M., K.P. Ying, J.F. Ying, and **S.C. Ying**. 2008. A spatial analysis of outreach programs for ground and surface water contamination in Cambodia. Annual Applied Geography Conference. Wilmington, Delaware. (Oral)
- LaVerne, T.D., **S.C. Ying**, and K.P. Ying. 2004. Residential Succession in St. Louis, 1910-1960: A Base Case with Special Reference to Religions of the Populations. Association of American Geographers Annual Meeting. Philadelphia, PA. (Oral)
- Ying, S.C.**, M. Herold, K.C. Clarke. 2003. Exploring the Urban Future of Santa Barbara, CA using the What If-Planning Support System. Association of American Geographers Annual Meeting. AAG, New Orleans, LA. *Invited*. (Oral)
- Herold, M., **S.C. Ying**, and Clarke, K. C. 2003. Exploring the What-If planning support system for development of the Santa Barbara urban region. International Conference on Framing Land Use Dynamics. Utrecht, Netherlands (Oral)

- Ying, S.C.**, K.P. Ying, K.C. Clarke. 2002. Water quality deterioration in the Chagrin River at Willoughby, Ohio. Association of American Geographers Annual Meeting. AAG, Los Angeles, CA. *Invited*. (Oral)
- Ying, S.C.**, B. Sprague, E. Sundilson, C. Wong, and M.F. Goodchild. 2002. Objective and status of CSISS Cookbook Project. 4th Annual Advisory Board Meeting, Center for the Spatially Integrated Social Sciences. UC Santa Barbara, CA. *Invited*. (Oral)

ENVIRONMENTAL MICROBIOLOGY

- Ying, S.C.**, B. D. Kocar, M. Ung, S. Fendorf, C. Francis. 2010. Analysis of Arsenic(V)-reducing microbial community structure and environmental influences using multivariate statistics. 13th International Symposium on Microbial Ecology. ISME Meeting. Seattle, WA. (Poster)
- Ying, S.C.**, C.A. Francis, S. Fendorf. 2008. Identification of biogeochemical processes responsible for arsenic poisoning of Asian groundwater through microbial functional gene analysis. Young Environmental Scholars Workshop. Woods Institute for the Environment, Stanford, CA. (Oral)
- Ying, S.C.**, B.D. Kocar, C.A. Francis, S. Fendorf. 2007. Microbially mediated arsenic cycling in near subsurface sediments of the Mekong Delta. Association of American Geographers Annual Meeting. AAG. San Francisco, CA. (Oral)
- Ying, S.C.**, B.D. Kocar, S. Fendorf, C.A. Francis. 2007. Arsenic mobilization within deltaic soils of Asia: Diversity of arsenic(V) reductase (*arrA*) genes across redox gradients. American Society for Microbiology 107th Annual Meeting. Toronto, ON. (Poster)

X-RAY SPECTROSCOPY

- Ying, S.C.**, Y. Masue-Slowey, S. Fendorf. 2009. Mixed mineralogical and biogeochemical controls on arsenic fate in aggregated soils/sediments. Advanced Light Source Users Meeting Student Award Presentation. Berkeley, CA. (Oral)
- Ying, S.C.**, Y. Masue-Slowey, S. Fendorf. 2009. Mixed mineralogical and biogeochemical controls on arsenic fate in aggregated soils/sediments. Advanced Light Source Users Meeting. Berkeley, CA. (Poster)
- Ying, S.C.**, Y. Masue-Slowey, S. Fendorf. 2009. Controls on arsenic fate in aggregated soils. Stanford Synchrotron Radiation Lightsource Users Meeting. Menlo Park, CA. (Poster)

PEER REVIEW

Environmental Science and Technology, Environmental Science and Technology Letters, National Science Foundation Geosciences, Geochimica et Cosmochimica Acta, Journal of Environmental Quality, International Journal of Coal Geology, Contaminant Hydrology, Environmental Pollution, Geoderma, Fuel, Chemosphere, Energy & Fuels, Stanford Synchrotron Radiation Lightsource (Proposals), USDA NIFA AFRI Foundational Grants, Soil Science Society of America Journal, Environmental Reviews, Environmental Microbiology, Geoderma, Geomicrobiology, Langmuir, Soil Systems, Environmental Science Processes and Impacts.

PROFESSIONAL MEMBERSHIPS

Geochemical Society

American Geophysical Union
 Soil Science Society of America
 Association of American Geographers
 American Chemical Society
 American Society of Microbiologists
 Mineralogical Society of America

AWARDS & HONORS

2012, 2014	Earth Sciences Certificate for Outstanding Mentoring, Stanford University
2009	Advanced Light Source Users Meeting Student Poster Award
2004	The Robert L. Sinsheimer Award in Molecular Biology, UC Santa Barbara
2004	Department of Geography Distinction in the Major, UC Santa Barbara
2004	Outstanding Achievement in Geography, UC Santa Barbara
2004	Chair's Award for Excellence in Geography, UC Santa Barbara
2002-present	Gamma Theta Upsilon Honor Society
2000-2004	Dean's Honors, UC Santa Barbara

SELECT OUTREACH AND EDUCATIONAL ACTIVITIES

Faculty Mentor, UC Riverside RISE and BRIDGE program

Faculty committee member, University Awards and Honors Committee, UC Riverside

Committee member, Graduate student awards ASA-CSA-SSSA Annual Meeting, Division of Soil Chemistry

Lead Organizer and Founder, ASA-CSA-SSSA Annual Meeting Women in Soil Sciences Network

Faculty Mentor, UC Riverside HSI STEM Pathway Program

Volunteer Judge, Riverside Unified School District Annual Science Fair, UCR Undergraduate Research Symposium

PAST RESEARCH

2004 **Marine biogeochemistry cruise researcher**, Department of Geological Sciences, UC Santa Barbara, California (Mentor: Prof. Dave Valentine)
 Project: *Hydrogen Isotope Biogeochemistry of Anoxic Environments*.
 Participated in 10 day research cruise through Santa Barbara and Santa Monica Basins. Designed then executed sulfide sampling protocol on research vessel.

2000-2004 **Urban planning researcher**, Department of Geography, UC Santa Barbara, California (Advisors: Prof. Michael Goodchild, Prof. Keith Clarke, Prof. Martin Herold)
 Implemented *What If Planning Support System* to determine optimal land use allocation in Santa Barbara urban region based on various population growth model predictions.

2003-2004 **Cellular development researcher**, Department of Molecular, Cellular, and Developmental Biology, UC Santa Barbara, California (Advisor: Prof. Joel Rothman)

Performed lab studies on mechanisms regulating programmed cell death (PCD) during tumorigenesis using Caenorhabditis elegans nematodes.

- 2002-2003 **GIS research assistant**, Center for Spatially Integrated Social Sciences, UC Santa Barbara, California (Advisors: Prof. Michael Goodchild, Dr. Donald Janelle)
Created materials for step-by-step GIS "Cookbook" website as a reference for social scientists using spatial analysis in their research.
- 2002-2003 **QUEST researcher**, National Science Foundation (NSF) Research Experiences for Undergraduates (REU) Program, Materials Research Laboratory, UC Santa Barbara, California (Advisors: Prof. Michael Goodchild, Fiona Goodchild)
Designed survey, collected and analyzed data to assess whether availability of and participation in professional development programs for K-12 science teachers are biased against certain socioeconomic groups.
- 2001 **Molecular biology intern**, Department of Molecular Biology, The Cleveland Clinic, Cleveland, Ohio (Mentor: Dr. Mikhail Chernov)
Performed lab experiments to explore regulation and function of p53 tumor suppressor.

MENTORSHIP

PHD STUDENTS

Claudia Marin, *Environmental Sciences* (2015 - current)
Macon Abernathy, *Environmental Toxicology* (2016-current)
Miranda Aiken, *Environmental Toxicology* (2017-current)
Danielle Stevenson, *Environmental Toxicology* (2018-current)
Benjamin Maki, *Environmental Toxicology* (2019-current)
Seth Fernandez, *Environmental Toxicology* (2017 rotation)
Alex Frie, *Environmental Sciences, co-advised* (2015 - 2019)

MASTERS STUDENTS

Rebecca Mock, *Environmental Toxicology* (2015 - graduated 2017)
Thesis: *Inhibition of As(III) Oxidation by Manganese Oxides in the Presence of Fe(II)*

Amy Salvador, *Environmental Sciences* (2015 - graduated 2017)
Thesis: *Vanadium Oxidation and Retention by Iron and Manganese Oxides*
<https://escholarship.org/uc/item/5rj9r6q8>

UNDERGRADUATE STUDENTS

Mariejo Plaganas, *Environmental Sciences, Honors* (2015 - current)
 Kevin Martinez, *Earth Science, HSI-STEM Bridge Fellow* (2015- graduated 2017)
 Shima Sahebajami, *Molecular biology, HSI-STEM Bridge Fellow* (2015 - graduated 2016)
 Andrew Tran, *Anthropology, HSI-STEM Bridge Fellow* (2015 - graduated 2016)
 Anya Badalian, *Environmental Sciences* (graduated 2016)
 Abdi Garniwan, *Environmental Sciences* (2017-current)
 Loryssa Lake, *Chemical Engineering* (2016-2018, Currently at The Ohio State University for Masters in Environmental Science)
 Tommy Haensel, *Environmental Science* (2018 - current, accepted to UH Manoa PhD program)

GRADUATE COMMITTEE STUDENTS

Tania Kurbessoian, *Microbiology Graduate Program, PhD* (2018 - present)
 Alex Zumberge, *Earth Science, PhD* (2018 - present)
 Yocelyn Villa, *Environmental Science at UC Merced* (2018 - present)
 Hannah Shulman, *Plant Pathology and Microbiology, PhD* (2017 - present)
 Cara Fertita, *Botany and Plant Sciences, PhD* (2015 - graduated 2017)
 Phil Clements, *Environmental Sciences, MS* (2015 - graduated 2017)
 Douglas Wolf, *Environmental Sciences, PhD* (2015 - current)
 Keshav Arogyaswamy, *Cell, Molecular and Developmental Biology, PhD* (2015 - current)
 Simone Boudreau, *Environmental Sciences, MS* (Graduated 2015)
 Jacob Shiba, *Environmental Sciences, MS* (Graduated 2015)
 Travis Walker, *Chemical and Environmental Engineering, PhD* (Qualifying Exam)
 Miguel Garcia, *Environmental Sciences, PhD* (Qualifying Exam)

VISITING SCHOLARS

Dr. Wen Zhuang, Associate Professor of Environmental Science, College of City and Architecture Engineering, Zaozhuang University (2018-present)
 Shuhan Tian, PhD student, Chinese Academy of Sciences, Beijing, China (2019-present)
 Hermano Queiroz, PhD student, Universidade de São Paulo, Brazil (2019-present)
 Dr. Weiwei Cong, Lecturer (Assistant Professor), Shenyang Agricultural University, China (2016-2017)
 Lucas Sartor, PhD student, Universidade de São Paulo, Brazil (2016-2017)

COLLABORATORS AND AFFILIATES

Collaborators (17) and Co-Editors (4): Scott Fendorf (Stanford University, doctoral advisor), Eric Lambin (Stanford University, postdoctoral advisor), Christopher Francis (Stanford University), Jen Wilcox (Colorado School of Mines), Dominik Weiss (Imperial College, London), Marco Keilueit (University of Massachusetts, Amherst), Peter Nico (LBNL), Eoin Brodie (LBNL/UC Berkeley), Kate Scow (UC Davis), Asmeret Berhe (UC Merced), Teamrat Ghezzehi (UC Merced), Woutrina Smith (UC Davis), David Lopez-Carr (UC Santa Barbara), Federico Castillo (UC Berkeley), Nancy Suski (LLNL), Francesca Hopkins (UC Riverside), Robert Graham (UC Riverside), Roya Bahreini (UC Riverside), Don Sparks (University of

Delaware), Ruben Kretschmar (ETH), Thomas Borch (Colorado State University), Haizhou Liu (UC Riverside), Marilyn Fogel (UC Riverside), Roya Bahreini (UC Riverside), Darrel Jenerette (UC Riverside), Deborah Pagliaccia (UC Riverside), Pete Homyak (UC Riverside).