ALEXIS S. TEMPLETON

Department of Geological Sciences, University of Colorado at Boulder, CO 80309-0399 (303) 735-6069 (phone) alexis.templeton@colorado.edu (303) 492-2606 (fax)

EDUCATION

2002 Ph.D. in Aqueous and Environmental Geochemistry, Stanford University

1996 M.S. in Geochemistry, Dartmouth College

1993 A.B. with high honors in Earth Sciences, Dartmouth College

POSITIONS HELD

2013-Present Associate Professor

Department of Geological Sciences, University of Colorado at Boulder

2013 Visiting Professor

Institut de Minéralogie et de Physique des Millieux Condensés, France

2013 Visiting Professor

Institut de Physique du Globe à Paris, France

2005-2012 Assistant Professor

Department of Geological Sciences, University of Colorado at Boulder

2002-2005 NSF Postdoctoral Fellow, Microbial Biology

Scripps Institution of Oceanography, Marine Biology Research Division

1997-2002 Stanford Graduate Fellow

Geological & Environmental Sciences, Stanford University

1995-1997 Senior Research Associate, Center for Isotope Geochemistry,

Earth Sciences Division, Lawrence Berkeley National Laboratory

AWARDS AND HONORS

2017	Mineralogical Society of America Fellow
2012	Geobiology & Geomicrobiology Division Award, Geological Society of America
2011	Department of Energy Early Career Research Award
2006	David and Lucille Packard Foundation Fellowship in Science and Engineering
2006	F.W. Clarke Medal, Geochemical Society
2004	Rosalind Franklin Young Investigator Award, Advanced Photon Source
2002-2004	National Science Foundation Microbial Biology Postdoctoral Fellowship
1999	Wolf Vishniac Award, International Symposium Environmental Biogeochemistry
1997-2000	Eugene Holman Stanford Graduate Fellowship, Stanford University
1993	John Ebers & Upham Prizes for excellence in Earth Sciences, Dartmouth College

INVITED PRESENTATIONS (Recent)

2017	Virtual Planetary Laboratory (VPL NAI), University of Washington
2017	Keynote, Goldschmidt International Geochemistry Conference, France
2017	Keynote, Rocky Mountain Geobiology Symposium, Colorado
2017	Rock-Hosted Biosignatures Workshop, Pasadena, CA
2016	Keynote, Serpentine Days International Conference, Sete, France
2016	Europa Multiple-Fly-By Mission Planning Meeting, D.C.
2016	KISS Methane on Mars Workshop, Pasadena, CA
2015	3 rd International Microenergy Workshop, Denmark
2015	25 th Anniversary Talk, Goldschmidt International Geochemistry Conference
2014	United States Geological Survey, Denver, CO
2013	French National Museum of Natural History, Paris, France
2013	University of Stockholm, Sweden
2013	University Claude Bernard Lyon, France
2012	International Continental Drilling Program Oman Workshop, Palisades, NY
2012	International Workshop on Fe Biogeochemistry, Telluride CO
2012	International Geobiology Summer Course, Golden CO.
2012	Keynote at Advanced Photon Source Meeting, Chicago, IL.
2012	School of Earth Sciences, Stanford University

PUBLICATIONS

- Mayhew, L.E., Ellison, E.T., Miller, H.M., Kelemen, P.K., and **Templeton, A.S.**, 2018, Iron transformations during low-temperature alteration of serpentinized rocks from the Samail Ophiolite, Oman. *Geochimica et Cosmochimica Acta*, v. 222, p. 704-728. https://doi.org/10.1016/j.gca.2017.11.023
- Miller, H.M., Mayhew, L.E., Kelemen, P.K., Ellison, E., Kubo, M. and **Templeton, A.S.,** 2017, Low temperature hydrogen production during hydration of partially-serpentinized peridotite. *Geochimica et Cosmochimica Acta*. http://dx.doi.org/10.1016/j.gca.2017.04.022
- Sudek, L.A., Wanger, G., **Templeton, A.S.**, Staudigel, H., and Tebo, B.M., 2017, Basaltic glass colonization by the heterotrophic Fe(II)-oxidizing and Siderophore-producing deep sea bacteria Pseudomonas stutzeri VS-10: the potential role of basalt in enhancing growth. *Frontiers in Extreme Microbiology* https://doi.org/10.3389/fmicb.2017.00363
- Rempfert, K., Miller, H.M., Matter, J.M., Kelemen, P., Fierer, N., **Templeton, A.S.**, 2017, Geochemical and Hydrologic Controls on Subsurface Microbial Life in the Samail Ophiolite, Oman. *Frontiers in Extreme Microbiology* https://doi.org/10.3389/fmicb.2017.00056
- Lau, G.E., Cosmidis, J., Grasby, S.E., Trivedi, C.B., Spear, J.R., and **Templeton, A.S.**, 2017, Low-temperature formation and stabilization of rare allotropes of cyclooctasulfur (β-S₈ and γ-S₈) in the presence of organic carbon at a sulfur-rich glacial site in the Canadian High Arctic. *Geochimica et Cosmochimca Acta v. 200, p. 217-231*. http://dx.doi.org/10.1016/j.gca.2016.11.036
- Miller, H.M., Matter, J.M., Kelemen, P.K., Ellison, E., Conrad, M., Tominaga, M. and **Templeton, A.S**, 2017. Methane origin in the Samail ophiolite: Reply to comment on "Modern water/rock reactions in Oman hyperalkaline peridotite aquifers and implications for microbial habitability". *Geochimica et Cosmochimca Acta*, v. 197, p.471-473. http://dx.doi.org/10.1016/j.gca.2016.11.011
- Cosmidis, J. and **Templeton, A.S.**, 2016, Self-assembly of biomorphic C/S microstructures in sulfidic environments. *Nature Communications, article* 12812, doi:10.1038/ncomms12812
- Miller, H.M., Matter, J.M., Kelemen, P.K., Ellison, E., Conrad, M., Tominaga, M. and **Templeton, A.S**, 2016, Modern water/rock reactions in Oman hyperalkaline serpentine aquifers and implications for microbial habitability. *Geochimica et Cosmochimca Acta*, v. 179, p. 217-241, http://dx.doi.org/10.1016/j.gca.2016.01.033
- McCollom, T.M., Klein, F., Robbins, M., Moskowitz, B., Berquo, T., Jons, N., Hoehler, T., Bach, W. and **Templeton, A.S.**, 2016, Temperature trends for reaction rates, hydrogen generation and partitioning of iron during experimental serpentinzation of olivine. *Geochimica et Cosmochimca Acta* v. 181, p. 175-200. http://dx.doi.org/10.1016/j.gca.2016.03.002
- Mayhew, L.E., Lau, G.E., and **Templeton, A.S.,** 2016, Distinct geochemistries of water-basalt-Fe⁰ reactions in the presence versus absence of CO₂-driven microbial methanogenesis. *Chemical Geology* v. 428, p. 92-105. http://dx.doi.org/10.1016/j.chemgeo.2016.02.028
- Templeton, A.S. & Benzerara, K., 2015, Emerging frontiers in Geomicrobiology. *Elements* v.11, 423-429.
- Mayhew, L.E., Ellison, E., McCollom, T.M., Trainor, T.P., and **Templeton, A.S.**, 2013, Hydrogen production during low temperature water-rock reactions. *Nature Geoscience*, v.6, p. 478-484.
- Knowles, E.J., Staudigel, H., and **Templeton, A.S.**, 2013, Geochemical characterization of putative biosignatures in subseafloor basalt glass. *Earth and Planetary Science Letters*, v. 34, p. 239-250.
- Wright, K.E., Williamson, C., Grasby, S.E., Spear, J.S., and **Templeton, A.S.,** 2013, Metagenomic evidence for sulfur lithotrophy by Epsilonproteobacteria as the major energy source for primary productivity in a sub-aerial arctic glacial deposit, Borup Fiord Pass. *Frontiers in Extreme Microbiology, v4. Article 63.*

- Knowles, E.J., Wirth, R., **Templeton, A.S.**, 2012, A comparative analysis of potential biosignatures in basalt glass by FIB-TEM, *Chemical Geology*, v. 330-1, p. 165-175.
- Toner, B., Berquo, T., Michel, M., **Templeton, A.S.**, Sorenson, J.V., and Edwards, K.J., 2012, Mineralogy of iron microbial mats from Loihi Seamount. *Frontiers in Biological Chemistry*, v. 3, p. 1-18.
- Fliegel, D., Knowles, E., Wirth, R., Staudigel, H., **Templeton, A.S.,** and Furnes, H., 2012, Characterization of alteration textures in Cretaceous oceanic crust (pillow lava) from the N-Atlantic (DSDP hole 418) by spatially resolved spectroscopy. *Geochimica et Cosmochimica Acta* v. 96, p. 80-93.
- Gleeson, D.F., Pappalardo, R.T., Anderson, M.S., Grasby, S.E., Wright K.E. and **Templeton, A.S.**, 2012, Life detection at an Arctic analog to Europa. *Astrobiology Journal* v. 12, p. 135-150.
- Swanner, E.D., and **Templeton, A.S.**, 2011,Potential for nitrogen fixation and nitrification in the granite-hosted subsurface at Henderson Mine, CO. *Frontiers in Extreme Microbiology* 2:254.
- Mayhew, L.E., Webb, S.M., and **Templeton, A.S.**, 2011, Microscale imaging and identification of Fe speciation and distribution during fluid-mineral interactions under highly reducing conditions. *Environmental Science and Technology*, v. 45, p. 4468-4472.
- Swanner, E.D., Nell, R., and **Templeton, A.S.**, 2011, *Ralstonia* species mediate Fe-oxidation in circumneutral, metal-rich subsurface fluids of Henderson Mine, CO. *Chemical Geology*, v. 284, p. 339-350.
- Gleeson D.F., Williamson C.H.D., Grasby S.E., Spear J.R., Pappalardo R.T., **Templeton A.S.**, 2011, Low temperature S⁰ biomineralization at a supraglacial spring system in the Canadian High Arctic, *Geobiology Journal*, v. 9, p. 360-375.
- Templeton, A.S., Geomicrobiology of Fe in extreme environments, 2011, *Elements*, v. 7, p. 95-100.
- **Templeton, A.S.,** Knowles, E.J., Eldridge, D.L., Arey, B.W., Dohnalkova, A., Webb, S.M., Bailey, B.E., Tebo, B.M., Staudigel, H.S., 2009, A seafloor microbial biome hosted within incipient ferromanganese crusts. *Nature Geoscience*, v.2, p. 872-876.
- Sudek, L., **Templeton, A.S.**, Staudigel, H., Tebo, B.M., 2009, Microbial ecology of Fe-rich mats & basaltic rock from Vailulu'u Seamount, American Samoa. *Geomicrobiology Journal*, v. 26, p. 581-596.
- Bailey, B., **Templeton, A.S**., Staudigel, H., Tebo, B.M., 2009, Utilization of substrate components during basaltic glass colonization by *Pseudomonas & Shewanella* isolates. *Geomicrobiology Journal*, v. 26, p. 648-656.
- Connell, L., **Templeton, A.S.**, Barrett, A., Staudigel, H., 2009, Diversity of fungi associated with an active deep-sea volcano. *Geomicrobiology journal*, v. 26, p. 597-605.
- Homann, V., Tincu, A., **Templeton, A.S.**, Tebo, B.M., Butler, A., 2009, Loihichelins A-F, a Suite of amphiphilic siderophores produced by the marine bacterium *Halomonas* LOB-5. *Journal of Natural Products*, v. 72, p. 884-888.
- **Templeton, A.**, and Knowles, E., 2009, (Peer-Invited-Review) Microbial transformations of minerals and metals: recent advances in Geomicrobiology derived from synchrotron-based x-ray spectroscopy and x-ray microscopy. *Annual Reviews in Earth and Planetary Sciences*, v. 37, p. 367-391.
- Mayhew, L.E., Swanner, E.D., Martin, A.P., **Templeton, A.S.**, 2008, Phylogenetic relationships and functional genes: distribution of a Mn-oxidizing gene (*mnxG*) in *Bacillus sp.. Applied and Environmental Microbiology*, v. 74, p. 7265-7271.
- Staudigel, H., Furnes, H., McLoughlin, N., Banerjee, N., Connell, L., **Templeton, A.**, 2008, 3.5 Billion years of glass bioalteration: volcanic rocks as a basis for microbial life? *Earth Science Reviews*, v. 89, p. 156-178.

- Sahl, J., Schmidt, R., Swanner, E., Mandernack, K., **Templeton, A**., Kieft, T., Smith, R., Mitton, J., 2008, Subsurface microbial diversity in deep granitic fracture water, Colorado, USA. *Applied and Environmental Microbiology*, v.74, p. 143.
- **Templeton, A.S.**, Chu, K.H., Alvarez-Cohen, L., Conrad, M.E., 2006, Metabolic controls on the carbon isotope fractionations expressed by methane-oxidizing bacteria. *Geochimica et Cosmochimica Acta*, v. 70, p.1739-1752. http://dx.doi.org/10.1016/j.gca.2005.12.002
- Staudigel, H., Hart, S., Pile, A., Bailey, B. Baker, E., Brooke, S., Connelly, D.P., Haucke, L., German, C., Hudson, I., Jones, D., Koppers, A., Konter, J., Lee, R., Pietsch, T., Tebo, B., **Templeton, A.S.**, Zierenberg, R., and Young, C., 2006, Vailulu'u Seamount, Samoa: Life and Death on an Active Submarine Volcano. *Proceedings of the National Academy of Sciences*, v.103, p. 6448-6453.
- Trainor, T.P., **Templeton, A.S.,** Eng, P.J., 2006, Structure and reactivity of environmental interfaces: Application of grazing-angle x-ray spectroscopy and long-period x-ray standing waves. *Journal of Electron Spectroscopy and Related Phenomena*, v. 150, p. 66-85
- Tebo, B.M., **Templeton, A.S.**, Johnson, H.A., McCarthy, J., 2005, Geomicrobiology of Mn(II)-biomineralization. *Trends in Microbiology*, v. 13, 421-428.
- Brown, G.E. Jr., **Templeton, A.S.**, Catalano, J. G., Trainor, T.P., Bostick, B., Kendelewicz, T., Doyle, C.S., Morin, G. Juillot, F., Calas, G., 2005, Environmental interfaces, heavy metals and microbes: Applications of XAFS spectroscopy to environmental science, *Physica Scripta* T115, p. 80-87.
- **Templeton, A.S.**, Staudigel, H., Tebo, B.M., 2005, Diverse Mn(II)-oxidizing bacteria isolated from submarine basalts at Loihi Seamount *Geomicrobiology Journal*, v. 22, p. 129-137.
- **Templeton, A.S.**, Trainor, T.P., Spormann, A.M., Brown, G.E., Jr., 2003, Selenium speciation at *Burkholderia cepacia*/Al₂O₃ interfaces. *Geochimica Cosmochimica Acta*, v. 69, p. 3547-3557.
- **Templeton, A.S.**, Spormann, A.M., Brown, G.E. Jr., 2003, Speciation of Pb sorbed by *B. cepacia*/goethite composites. *Environmental Science and Technology*, v. 37, p. 2166-2172.
- **Templeton, A.S.**, Trainor, T.P., Spormann, A.M., Newville, M., Sutton, S.R., Dohnalkova, A., Gorby, Y., Brown, G.E., Jr., 2003, Sorption vs. biomineralization of Pb(II) within *Burkholderia cepacia* biofilms. *Environmental Science and Technology*, v. 37, p. 300-307.
- Trainor, T.P., **Templeton, A.S.**, Parks, G.A., Brown, G.E. Jr., 2002, Application of the long-period x-ray standing wave approach to surface reactivity: Pb(II) Sorption at α -Al₂O₃ /aqueous solution interfaces in the presence and absence of Se(VI). *Langmuir*, v. 18, p. 5782-5791.
- Bhupathiraju, V.K., Krauter, P., Holman, H-Y. N., Conrad, M.E., **Templeton, A.S.**, Hunt, J.R., Hernandez, M.R., Alvarez-Cohen, L., 2002. Assessment of in-situ bioremediation at a refinery waste-contaminated site and an aviation gasoline contaminated site. *Biodegradation*, v. 13, p. 79-90.
- **Templeton, A.S.**, Trainor, T.P., Traina, S.J., Brown, G.E. Jr., 2001, Pb(II) distributions at biofilm/metal-oxide interfaces. *Proceedings of the National Academy of Sciences*, v. 98, p. 11897-11902.
- Trainor, T.P., Fitts, J.P., **Templeton, A.S.**, Grolimund, D.G., Brown, G.E. Jr., 2001, Grazing-incidence study of aqueous Zn(II) sorption on α-Al₂O₃ single crystals. *Journal of Colloid and Interface Science*, v. 244, p. 239-244.
- **Templeton, A.S.**, Trainor, T.P., Ostergren, J.D., Foster, A.L., Traina, S.J., Spormann, A., Brown, G.E. Jr., 1999, XAFS and XSW study of Pb sorbed to biofilms on α -Al₂O₃ and α -Fe₂O₃ surfaces. *Journal of Synchrotron Radiation*, v. 6, p. 642-644.
- Conrad, M.E., **Templeton, A.S.**, Daley, P.F., Alvarez-Cohen, L., 1999, Seasonally-induced fluctuations in microbial production and consumption of methane derived from aged refinery wastes, *Environmental Science and Technology*, v.33, p. 3836-3844.

- Conrad, M.E., **Templeton, A.S.**, Daley, P.F., Alvarez-Cohen, L., 1999, Isotopic evidence for biological controls on the migration of petroleum hydrocarbons, *Organic Geochemistry*, v. 30, p. 843-859.
- **Templeton, A.S.**, Craw, D., Chamberlain, C.P., Koons, P.O., 1999, Near surface expression of an active mesothermal gold mineralizing system, New Zealand, *Mineralium Deposita*, v. 34, p. 163-172.
- **Templeton, A.S.**, Chamberlain, C.P., Koons, P.O., Craw, D., 1998, Stable isotopic evidence for tectonically driven mixing between midcrustal and surface-derived fluids during Recent uplift of the Southern Alps, New Zealand, *Earth and Planetary Science Letters*, v. 154, p. 73-92. http://dx.doi.org/10.1016/S0012-821X(97)00143-X
- Koons, P.O, Upton, P., Craw, D., **Templeton, A.S.**, Chamberlain, C.P., 1998, Fluid-flow during active oblique convergence; A Southern Alps model from mechanical and geochemical observations, *Geology*, v. 26, p. 159-162. doi: 10.1130/0091-7613(1998)
- **Templeton, A.S.**, Manske, J. H., Sweeney, J. F., Tilghman, J. F., Calhoun, S., Violich, A. Chamberlain, C. P., 1995, Fluids and the Heart Mountain Fault revisited, *Geology*, v. 23, no. 10, p. 929-932.

Peer-Reviewed Teaching Publications

Arthurs, L. and **Templeton, A.S.**, 2009, Coupled collaborative in-class activities and homework promote interactive engagement and improve student-learning outcomes in a college-level Environmental Geology course. *Journal of Geoscience Education* v. 57, p. 357-372.

Papers In Review

- Miller, H.M., Chaudhry, N., Conrad, M.E., Bill, M., Kopf, S. and Templeton, A.S., Large carbon isotope variability during alkaline methanogenesis. *Geochimica et Cosmochimica Acta (in review)*.
- Johnson, J.E., Muhling, J.R., Cosmidis, J., Rasmussen, B., and **Templeton, A.S.**, Low Fe(III) greenalite was a primary precipitate from Neoarchean Oceans. *Earth and Planetary Science Letters (in revision)*.

Papers In Preparation

- McCollom, T.M., Klein, F., Moskowitz, B., Berquo, T., Bach, W. and **Templeton, A.S.**, Hydrogen generation and iron partitioning during experimental serpentinization of olivine-pyroxene mixtures.
- Lau, G.E., Trivedi, C.B., Grasby, S.E., Spear, J.R., and **Templeton, A.S.**, Sulfur- and Iron-Rich Mineralogical Features Preserved in Permafrost in the Canadian High Arctic: Analogs for the Exploration of Habitable Environments on Mars.
- Cosmidis, J., Nims, C., Diercks, D., and **Templeton, A.S.**, Sulfur organomineralization: a new S(0) formation mechanism.
- Ellison, E.T., Mayhew, L.E., Miller, H.M., and **Templeton, A.S.**, Co-registered Fe pre-edge and Raman imaging to trace Fe redox transformations in Serpentinites.

TEACHING ACTIVITIES

Classroom Teaching (2.5 3-credit courses per year)

GEOL 2100: Environmental Geology

Introductory-level course for non-STEM majors. Developed in close-collaboration with the Science Education Initiative to design and implement interactive teaching strategies. Taught Fall 2007, 2008, 2009, 2010, 2011, 2015.

GEOL 3320: Introduction to Geochemistry

Course for GEOL Majors that applies concepts of equilibrium thermodynamics to chemical differentiation of the Earth, chemical weathering and redox biogeochemistry. Spring 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017.

GEOL 4716: Environmental Field Geochemistry

Upper division field course for GEOL majors focusing on laboratory and field-based measurements and data interpretation for problems in aquatic chemistry, acid-mine drainage and subsurface bioremediation. Taught Spring 2012, Fall 2014, Fall 2017.

GEOL 5280: Aqueous and Environmental Geochemistry

Graduate-level interdisciplinary course on aquatic chemistry, redox processes, mineral weathering and metal cycling with students from GEOL, CVEN, GEOG, EBIO, MCDB and CHEM. Taught Fall 2006, Spring 2009, Fall 2013, Fall 2016.

GEOL 5700: Geomicrobiology

Graduate-level interdisciplinary course integrating aqueous geochemistry, microbial physiology and biomineralization processes with students from GEOL, CVEN, MCDB and CHEM. Spring 2008.

GEOL 5700: Geobiology

Graduate-level interdisciplinary course on early-Earth geochemistry and evolution of biogeochemical processes with students from GEOL, EBIO and ESE at Colorado School of Mines. Taught Spring 2009 with Prof. Steven Mojzsis.

MENTORING

Postdoctoral Researchers

Dr. Julie Cosmidis Sulfur "biomineralization" and the self-assembly of C/S microstructures

Dr. Jena Johnson Fe-silicate mineralization under Archean ocean conditions

Professional Research Associates

Dr. Lisa Mayhew Fe redox transformations during serpentinization of peridotite

Eric Ellison Raman and X-ray microspectroscopy of complex reactive geological materials

Principal Dissertation Advisor

Damhnait Gleeson PhD December 2009 (co-advised with Dr. Bob Pappalardo). "Microbial life in cold

sulfur-rich environments." Postdoctoral Scientist at the Jet Propulsion Laboratory,

Pasadena CA and Scientist with the European Space Agency.

Elizabeth Swanner PhD June 2011. "Microbially-mediated geochemical cycling of iron and nitrogen

within the granite-hosted subsurface of Henderson Mine, CO." NSF Postdoctoral Fellow, University of Tubingen, Germany and Assistant Professor, Iowa State.

Lisa Mayhew PhD May 2012. "Geological hydrogen production and microbial consumption

during low-temperature water-rock reactions." Research Scientist at CU-Boulder.

Katherine Wright PhD (in MCDB) August 2012. "Sulfur energetics and metagenomics at a

terrestrial analogue for Europa". Research Scientist at University of Bristol, UK.

Emily Knowles PhD December 2012. "Interpreting physical and chemical biosignatures in

basalt." Postdoctoral Scientist at the Jet Propulsion Laboratory.

Hannah Miller PhD May 2017. "Low temperature hydrogen production and habitability of a

has a substitute a superficient of the Company of the

hyperalkaline serpentinite aquifer in the Samail ophiolite".

Graham Lau PhD August 2017. "Modern and ancient cold spring sulfur deposits in the High

Arctic".

Kaitlin Rempfert PhD candidate (current)
Dan Nothaft PhD candidate (current)
Tyler Kane M.S. candidate (current)

Undergraduate Advisor

Daniel Eldridge GEOL honors thesis advisee. Graduated Summa Cum Laude, May 2009.

Rvan Nell GEOL mentor program and research assistant. GEOL UROP advisee and research assistant. Rachael Hoover GEOL UROP advisee and research assistant. Graham Lau Eric Ellison GEOL mentor program and research assistant.

Michael Leitshuh GEOL research assistant.

Julia Dziennik GEOL/ENVS UROP advisee and research assistant.

Katherine Ebeling GEOL honors thesis advise. Graduated Magna Cum Laude May 2014.

Nabil Chaudhry GEOL UROP advisee and research assistant

Christine Nims GEOL research assistant

Isaac Hinz Biological Sciences Initiative Scholar and GEOL research assistant.

Undergraduate Learning Assistant Mentor

Katherine Anarde (2009) Andrew Parker (2009) Trevor Mills (2009) Rachael Hoover (2010) Laura Schafenacker (2010) Amanda Yoshino (2011) Lauren Terry (2011) Gordon Bowman (2015) Helle Sketjne (2015)

SERVICE ACTIVITIES

Service to National or International Organizations

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2016-2017	Europa Lander Science Definition Team
2015-present	ICDP Oman Drilling Project proponent and Lead Scientist for Geomicrobiology
2015-present	NASA Astrobiology Institute Executive Council
2015-present	NASA Serpentinizing Systems Science Working Group Lead
2013-present	Stanford Synchrotron Radiation Lightsource Proposal Review Committee
2013-present	Geochemical Society, Patterson Award Committee
2013	NSF Workshop to evaluate the field of "Microbial Geochemistry"
2012-present	ICDP Oman Drilling Project participant and proponent
2012-2013	Goldschmidt 2013 International Conference Theme co-organizer
2011-present	Program Committee "Intl. Geochemistry of the Earth's Surface" Conference
2011-present	Review Editor, Frontiers in Microbiology: Microbial Chemistry.
2011	Program Committee and Microbial Geochemistry Lead, "Geochemistry of the
	Earth's Surface 9" International Conference
2011	Panelist, NASA Exobiology and Evolutionary Biology Program
2010	Co-convenor "Sulfur Biogeochemistry Past and Present", Goldschmidt 2010
2009	Department of Energy: Environmental Remediation Sciences Program Strategic
	Planning workshop in "Subsurface Complex System Science"
2009-present	Editorial Board & ad-hoc Subject Editor: Geobiology Journal
2006	Panelist, NSF-EAR Low-Temperature Geochemistry and Geobiology

IODP strategic workshop participant "Exploring Subseafloor Life" 2006

Member: NSF Seamount Biogeosciences Research Coordination Network 2005-2009 Funding proposal reviews: DOE, Basic Energy Sciences; NASA, Exobiology and 2005-present Evolutionary Biology; NSF Low-Temperature Geochemistry and Geobiology,

NSF Instrumentation and Facilities; American Chemical Society Petroleum

Research Fund, Louisiana Board of Regents.

2005-present Stanford Synchrotron Radiation Lightsource proposal reviews.

Manuscript reviews: Geochimica et Cosmochimica Acta, Science, Applied & 2005-present

Environmental Microbiology, Geobiology Journal, Environmental Science & Technology, American Mineralogist, Geomicrobiology Journal, Chemical

Geology, Water Resources, Reviews in Environmental Science & Biotechnology,

Journal of Geophysical Research – Biogeosciences, Elements Magazine.

Frontiers in Microbiology.

Service to the University of Colorado

2017-present Associate Chair for Graduate Studies, Department of Geological Sciences

2017-present
 2017-present
 2017-present
 2016-present
 University of Colorado Academic Futures Visioning Committee
 Executive Committee, Department of Geological Sciences
 CU Nanomaterials Electron Microscopy Faculty advisory board

2016-2017 Center for Water, Environment, and Science Center Executive Council.

2015-present2015-6Chair, Analytical Facilities and Space CommitteeChair, Geobiology Faculty Search Committee

2014-present Member, BioFrontiers Task Force

2014 Environmental Sciences Curriculum Committee, School of the Environment

2014 Core Curriculum Committee, Dean of Arts and Sciences
 2013-4 Member, Organic Geochemistry Search Committee

2008-present Packard Fellowship Selection Committee, Vice Chancellor for Research

2009-present Analytical Facilities Committee, Geological Sciences

2010-present Space Committee, Geological Sciences

2010-present Undergraduate Peer Learning Assistant Coordinator, Geological Sciences

2010 Science Education Initiative Postdoctoral Review Committee
 2005-6; 2007-8 Departmental Admissions Committee, Geological Sciences
 2006-7 Undergraduate Curriculum Committee, Geological Sciences

2006 SEI Postdoctoral Interview Committee

2006 Biology Committee, Henderson Underground Science and Engineering Project

2006-present Senior Member, Center for Astrobiology

Professional Affiliations

Geochemical Society, Mineralogical Society of America, International Society Microbial Ecology, American Geophysical Union