Stanford



Scott Fendorf

Terry Huffington Professor, Senior Fellow at the Woods Institute for the Environment and Professor of Photon Science

Earth System Science

Bio

ACADEMIC APPOINTMENTS

- Professor, Earth System Science
- Senior Fellow, Stanford Woods Institute for the Environment
- Professor, Photon Science Directorate
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)

ADMINISTRATIVE APPOINTMENTS

- Senior Associate Dean, Research, Doerr School of Sustainability, (2022-2026)
- Senior Associate Dean, Strategy and Planning, School of Earth, Energy, and Environmental Science, (2019-2022)
- Senior Associate Dean, Academic Affairs, School of Earth, Energy, and Environmental Science, (2016-2019)
- Chair, Earth System Science, (2007-2016)
- Professor, Earth System Science, Stanford University, (2007- present)
- Senior Fellow (by courtesy) Woods Institute for the Environment, Stanford University, (2008- present)
- Terry Huffington Professor of Earth Science, Stanford University, (2011- present)

HONORS AND AWARDS

- Fellow, American Geophysical Union (2022)
- Fellow, European Association of Geochemistry (2017)
- Fellow, Geochemical Society (2017)
- Soil Science Society of America's Research Award, Soil Science Society of America (2013)
- Outstanding Post-Doctoral Mentoring Award, Stanford University (2013)
- Fellow, Soil Science Society of America (2009)
- Presidential, Citation for Outstanding Achievement, University of Delaware (2005)
- Outstanding Teaching Award, School of Earth Science, Stanford University (2005)
- Stanford Fellow, Stanford University (2004-2006)
- Marion L. and Chrystie M. Jackson Soil Science Award for Outstanding Contributions in Soil Chemistry, Soil Science Society of America (2001)
- Terman Fellow, Stanford University (1999)
- Theodore Wolf Prize for Outstanding Dissertation in the Physical and Life Sciences, University of Delaware (1993)

- Emil Truog Award for Outstanding Dissertation in Soil Science, Soil Science Society of America (1993)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Soil Chemistry Division Chair Elect, Soil Science Society of America (2011 - 2012)
- Member, Conference Committee, Soil Science Society of America (2011 - 2013)
- Symposium Organizer (with Shawn Benner and Ruben Kretzchmar), “Biogeochemical Processes within Floodplain and Deltaic Sediments”, Goldschmidt conference, Prague, CZ, Goldschmidt conference (2011 - 2011)
- Advisory board member, Delaware Environmental Institute (2010 - present)
- Co-Chair, Wood Institute for the Environment EVP Selection Committee, Stanford University (2009 - 2010)
- Member, U.S. National Committee for Soil Science (2009 - present)
- Organizer, AGU Chapman Conference on Arsenic in Groundwater of Southern Asia, Siem Reap, Cambodia, American Geophysical Union (2009 - 2009)
- Symposium Organizer (with Ruben Kretzchmar), “Biogeochemistry at Redox Interfaces”, Goldschmidt Conference, Davos, Switzerland, Goldschmidt Conference (2009 - 2009)
- Invited Presentation: Stanford Ethics Society Seminar Series, Stanford University (2009 - 2009)
- Invited Presentation: Stanford Synchrotron Radiation Laboratory Seminar Series, Stanford Linear Accelerator Laboratory (2009 - 2009)
- Invited Presentation: ETH Seminar Series, Zurich, ETH Zürich (German: Eidgenössische Technische Hochschule Zürich) (2009 - 2009)
- Associate Editor, Vadose Zone Journal (2009 - present)
- Committee on Undergraduate Standards and Policy, Stanford University (2008 - present)
- SIGF Selection Committee, Stanford University (2008 - present)
- Facility Representative for the Environmental Spectroscopy and Biogeochemistry Program, and member of the Advisory Council, Environmental Molecular Science Laboratory, Pacific Northwest National Laboratory (2007 - 2009)
- University Committee on Environmental Health and Safety, Stanford University (2007 - present)
- Chair, EESS, Stanford University (2007 - present)
- Faculty Director, Environmental Measurements Facility, Stanford University (2006 - present)
- Associate Chair, GES, Stanford University (2006 - 2007)
- ERE Faculty Selection Committee, Stanford University (2006 - 2007)
- Session Organizer, Influence of Coupled Biological, Chemical, and Physical Processes on Contaminant Fate and Transport, Program Investigator meeting, DOE Environmental Remediation Science (2006 - 2006)
- Invited Lecture, "Biogeochemical Processes Governing the Fate of Chromium and Uranium within Soils and Waters”, Stanford Environmental Engineering and Science Seminar Series, Stanford University (2006 - 2006)
- Invited Lecture: “Heterogeneity in Biogeochemical Processes Impacting Contaminant Fate and Transport, Annual Meeting, Department of Energy Environmental Remediation Science Program (2006 - 2006)
- Invited Lecture: “Pathways of Ferric (Hydr)oxide Reductive Transformation and Impacts on Contaminant Transport”, Telluride Workshop: Iron Redox Chemistry at Environmentally Relevant Surfaces, Telluride Workshop (2006 - 2006)
- Invited Lecture: Biogeochemical Processes Governing the Cycling of Arsenic in Surface and Subsurface Environments”, National Meeting, American Chemical Society (2006 - 2006)
- Invited Lecture: “The Largest Mass Poisoning in History: Arsenic in Drinking Water”, Pinhead Institute’s Public Lecture, Telluride, CO, Pinhead Institute (2006 - 2006)
- Invited lecture: “Processes Governing the Transport of Arsenic: Contrasts Between the Mekong and Ganges-Brahmaputra Deltas”, Columbia University Earth Science Forum (2006 - 2006)
- Invited Lecture: “Dependency of Electron Transfer Rates on Changing and Localized Solid Phase Chemistry”, Biogeochemical Grand Challenge, Pacific Northwest National Laboratory (2006 - 2006)
- Invited lecture: Processes Controlling the Toxicity and Transport of Chromium and Arsenic in Groundwater, Advanced Photon Source Scientific Advisory Board Meeting (2005 - 2005)
- EEES Advisory Committee, Stanford University (2005 - present)
- GES Undergraduate Environmental Earth Science Curriculum Committee, Stanford University (2005 - 2006)

- UPS Endowment Review Committee, Stanford University (2005 - present)
- SES Undergraduate Environmental Science Program Committee, Stanford University (2005 - present)
- Wood Institute for the Environment Research Committee, Stanford University (2005 - present)
- Invited lecture:Processes Controlling the Cycling of Arsenic in Soils and Sediments, Bath, UK, British Mineralogy Society (2005 - 2005)
- Stanford Institute for the Environment Research Committee, Stanford University (2005 - 2005)
- Invited lecture: Solid-Phase Species (Associations) of Arsenic in Bengal Basin Sediments, Symposium on Arsenic in Bangladesh, MIT (2005 - 2005)
- Invited lecture:What Stands Between Environmental Toxins and Drinking Water? Stanford Graduate Student Lecture Series, Stanford Unversity (2005 - 2005)
- Invited lecture:Soils Earth Systems 10 Lecture; Biogeochemical processes controlling the cycling of arsenic, EMSI seminar, Stanford University (2005 - 2005)
- Invited lecture: Processes Governing the Largest Mass Poisoning in History: Arsenic in Drinking Water of Asia, University of Delaware (2005 - 2005)
- Invited lectureIntegrated Process Controls on Elemental Cycling within the Critical Zone. National Science Foundation Workshop on Frontiers in Exploration of the Critical Zone, University of Delaware (2005 - 2005)
- Invited lecture: Gaining a Molecular-Level Understanding of Processes Governing the Fate and Transport of Ions/Chemical within Soils Frontiers in Soil Science Research, Washington, DC, National Academy of Sciences (2005 - 2005)
- nvited lecture: Biotransformation Rates of Iron Governing Chromium and Uranium Transport (Winter), National Meeting, San Francisco, CA, American Geophysical Union (2005 - 2005)
- Participant and speaker for workshop on Frontiers in Soil Science Research, National Academy of Sciences (2005 - 2005)
- Participant in Workshop on Frontiers in Exploration of the Critical Zone, National Science Foundation (2005 - 2005)
- Invited lecture: The Greatest Mass Poisoning in History: Processes of Arsenic Liberation to Drinking Water in Asia. Earth Science Seminar Series, University of California, Santa Cruz (2005 - 2005)
- Guest Editor, special issue on Controls on Arsenic Transport in Near-Surface Aquatic Systems, Chemical Geology (2005 - 2006)
- GES Admissions Committee Chair, Stanford University (2004 - 2005)
- Symposium Organizer, Mechanisms of Electron Transfer at the Mineral-Water Interface, National Meeting, Seattle, Soil Science Society of America (2004 - 2004)
- SES Graduate Academic Programs Committee, Stanford University (2004 - 2005)
- Earth Science Council Member, Stanford University (2004 - present)
- NSF Workshop participant on Preparing for an Academic Career in Geosciences, University of Minnesota, 2004, National Science Foundation (2004 - 2004)
- Organizing member of ISSM/ISBE Symposia, ISSM/ISBE (2004 - 2005)
- Invited lecture: Mechanisms of arsenic cycling: Current conditions in Bangladesh and emerging situations throughout Asia. Geology Club Seminar, California Institute of Technology (2004 - 2004)
- Invited lecture: Processes controlling arsenic cycling in surface and subsurface environments, Purdue University (2004 - 2004)
- Invited lecture: Mechanisms biomineralization of Fe(II) sequestration following dissimilatory iron reduction of structurally diverse Fe(III) (hydr)oxides. Water-Rock Interactions, Saratoga, NY, Saratoga, NY (2004 - 2004)
- Invited lecture: Soils of Jasper Ridge, Docent Lecture Series, JRBP, Stanford University (2004 - 2004)
- Invited lecture: What Stands Between Environmental Toxins and Drinking Water? Graduate Student Lecture, Stanford University (2004 - 2004)
- GES Admissions Committee, Chair, Stanford University (2003 - 2004)
- GES Long-range Planning Committee, Stanford University (2003 - 2003)
- NSF Workshop participant on Preparing for an Academic Career in Geosciences, Stanford University, National Science Foundation (2003 - 2003)
- Sexual Harassment Officer, School of Earth Sciences, Stanford University (2003 - 2009)
- Symposium Organizer, Arsenic Dynamics within Soils and Sediments, National Meeting, Denver, Soil Science Society of America (2003 - 2003)
- Review Panel Member for DOE-EPSCoR program, Department of Energy (2003 - 2003)
- Symposium Organizer, Synchrotron Techniques in Environmental Microbiology and Biogeochemistry, , Annual Meeting, Stanford, CA, Stanford Synchrotron Radiation Laboratory (2003 - 2003)

- Invited Lecture Process controlling the release of arsenic in surface and subsurface environments. USGS Seminar Series, Menlo Park, CA, U.S. Geological Survey (2003 - 2003)
- Invited Lecture: Processes governing the fate of arsenic within the surface and near-surface environment. Biogeochemistry Seminar Series, Stanford University (2003 - 2003)
- Invited Lecture: Arsenic cycling within surface and subsurface environments: The addiction to iron. Thermal Biology Institute Seminar Series, Bozeman, MT, Montana State University (2003 - 2003)
- Invited Lecture: Microbially mediate reductive transformations of ferric oxides: Impacts on Cr and U dynamics, Scripps Institute of Oceanography (2003 - 2003)
- Invited Lecture: Reductive biotransformations within soils and sediments: Controlling factors in the mobility of heavy metals and radionuclides, Oregon Graduate Institute (2003 - 2003)
- Invited Lecture: Cycling and global threats of arsenic, National Meeting, Denver, CO, Soil Science Society of America (2003 - 2003)
- Invited lecture: Arsenic cycling within surface and subsurface environments: Impact of iron mineralogy. National Meeting, New York, NY, American Chemical Society (2003 - 2003)
- Invited Lecture: Speciation and desorption mechanisms of arsenic within Bangladesh sediments, National Meetings, Denver, CO, Soil Science Society of America (2003 - 2003)
- Invited lecture: Mechanisms of arsenic cycling, School of Earth Sciences, Stanford University (2003 - 2003)
- Invited Lecture: Biogeochemistry of metal reduction, Grand Challenge Seminar, Pacific Northwest National Laboratory (2003 - 2003)
- Invited Lecture: Iron transformations under biological reducing conditions, Geological Sciences Seminar, UC Berkeley (2002 - 2002)
- Invited Lecture: Arsenic dynamics within reducing soil/sediment environments, Environmental Science: Water. Plymouth, NH, Gordon Conference (2002 - 2002)
- Invited Lecture: Biogenic evolution of microscale heterogeneity: Impact on contaminant dynamics Goldschmidt Conference, Davos, Switzerland, Goldschmidt Conference (2002 - 2002)
- Invited Lecture: Uranium retention by biogenic magnetite Goldschmidt Conference, Davos, Switzerland, Goldschmidt Conference (2002 - 2002)
- Invited Lecture:Sustained Microbial Metabolism and Contaminant Sequestration Upon Reductive Biomineralization of Ferric Hydroxides, San Francisco, CA, American Geophysical Union. (2002 - 2002)
- Invited Lecture:Modeling the reactive transport and biomineralization of ferrihydrite reductive dissolution, Orlando, FL, American Chemical Society (2002 - 2002)
- Invited Lecture:Mechanisms of Fe biomineralization induced by dissimilatory iron reduction, Orlando, FL, American Chemical Society (2002 - 2002)
- Invited Lecture: Impact of solid-phase alterations on reduction pathways of chromate, Orlando, FL, American Chemical Society (2002 - 2002)
- Goldschmidt Planning Committee, Geochemical Society (2002 - 2005)
- Invited Lecture:Unique Physical and Chemical Properties of Soils. Stanford Community Farm, Stanford University (2001 - 2001)
- Member, Search Committee, Geomicrobiology, Stanford University (2001 - 2002)
- Earth Systems Advisory Council, Stanford University (2001 - present)
- Member, GES Long-range Planning Committee, Stanford University (2001 - 2004)
- Invited Lecture Reduction of chromium in surface and subsurface environments: Contributions of biological and abiological processes. Goldschmidt Conference, Hot Springs, VA, Goldschmidt Conference (2001 - 2001)
- Invited Lecture Reductive dissolution and biomineralization of iron oxides under dynamic flow conditions. Goldschmidt Conference, Hot Springs, VA, Goldschmidt Conference (2001 - 2001)
- Invited Lecture Element-specific microtomographic imaging of metal distribution (and speciationNULL) in contaminated systems, Chicago, IL, American Chemical Society (2001 - 2001)
- Member, Undergraduate Program Committee for GES, Stanford University (2001 - 2002)
- Invited Lecture Defining the speciation and chemical dynamics of contaminants within the vadose zone, San Francisco, CA, American Geophysical Union National Meetings (2001 - 2001)
- Invited Lecture: Speciating trace elements within natural environments: Impacts on bioavailability, International Conference on the Bioavailability of Trace Elements (2001 - 2001)
- Soil Science Advisory Council, Soil Science Department, San Luis Obispo, California Polytechnic State University (2000 - present)
- Committee member, Defining Contaminant Bioavailability in Soils and Sediments, National Research Council (2000 - 2002)

- Invited Lectures: Environmental influential reactions and speciation of sulfur within soils and waters, SSRL Workshop on Chemistry of Sulfur in the Environment, Stanford, CA, Stanford Synchrotron Radiation Lightsource (2000 - 2000)
- Review Panel Member for National Research Competitive Grants Program in Soil and Soil Biology, USDA (1999 - 1999)
- Review Panel Member for DoD's Strategic Environmental Research and Development Program (SERDP), Department of Defense (1999 - 1999)
- Selection committee member for Outstanding Researcher in Soil Science, Soil Science Society of America (1999 - 2002)
- Invited Lecture: Competing biological and geochemical processes in metal and radionuclide reduction, DOE workshop Combined Chemical and Microbiological Approaches to Remediating Metal and Radionuclide Contaminants, Reston, VA, DOE (1999 - 1999)
- Review Panel Member for PNNL's Laboratory Directed Research and Development Program, Pacific Northwest National Laboratory (1998 - 1998)
- Associate Editor, Journal of Environmental Quality (1998 - 2000)
- Invited Lecture: Trace element cycling within the Coeur d'Alene River system. Department of Geology Seminar Series, University of Idaho, Moscow (1998 - 1998)
- Invited Lecture: Metal ion structures within soil environments. Department of Chemistry Seminar Series, University of Idaho (1998 - 1998)
- Invited Lecture: Fundamental aspects and applications of x-ray absorption spectroscopy in clay and soil science. Clay Mineral Society Workshop on Applications of Synchrotron Radiation in Clay Science, Ottawa, Canada, Clay Mineral Society Workshop (1997 - 1997)
- Committee member for Soil Science Society of America Emil Truog Outstanding Graduate Student Award, Soil Science Society of America (1996 - 1998)
- Selection committee member for American Society of Agronomy Environmental Quality Research Award Committee (A447), American Society of Agronomy (1996 - 1999)
- Member of NCR-174, Soil Scientists for Synchrotron Based Research (1995 - present)
- W-184 Work Group, Western Soil Chemistry (1995 - present)

PROFESSIONAL EDUCATION

- Ph.D., University of Delaware , Soil & Environmental Chemistry (1992)
- M.S., University of California , Soil Chemistry (1990)
- B.S., California Polytechnic State University , Soil Science (1988)

LINKS

- Soil and Environmental Biogeochemistry: http://soils.stanford.edu

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Research

I am interested in the chemical and biological processes that govern the fate and transport (and thus cycling) of contaminants (such as arsenic) and nutrients (such as phosphate) within soils, sediments, and surface waters. My research group examines the chemical environments that develop as a result of both biotic and abiotic processes, and we strive to account for the physical complexity, inclusive of solute transport, within natural settings. Our particular emphasis is on reactions that change the oxidation state (redox reactions) and associated speciation of contaminants and nutrients, or solids that control their partitioning, within soils and sediments.

Teaching

I teach a range of courses on soils and soil processes that encompass their rates of development, unique features for plant growth, ability to filter contaminants, management for sustained agricultural productivity, and their sensitivity to human disturbance. I am also a co-instructor for a course on field research in Earth Systems.

Professional Activities

Faculty Director for Environmental Measurements Facility (2006-present); Terman Fellow, Stanford University (1999-2002); Stanford University Fellow (2004-06); National Research Council Committee for Defining Contaminant Bioavailability in Soils and Sediments (2000-02); Advisory Council and Faculty Representative for Environmental Molecular Science Laboratory, Pacific Northwest National Laboratory (2007-present); Chemical Geology Editor for the special issue "Controls on Arsenic Transport in Near-Surface Aquatic Systems" (2006); NAS panel for Frontiers in Soil Science Research (2005); Panel organizer for DOE Environmental Remediation Science Program's "Influence of Coupled Biological, Chemical, and Physical Processes on Contaminant Fate and Transport" (2006)

Teaching

COURSES

2026-27

- Earth System Perspectives II: ESS 306 (Win)
- Science of Soils: EARTHSYS 155, ESS 155 (Spr)
- Soil and Water Chemistry: EARTHSYS 256, ESS 256 (Win)

2025-26

- Science of Soils: EARTHSYS 155, ESS 155 (Spr)

2024-25

- Science of Soils: EARTHSYS 155, ESS 155 (Spr)
- Soil and Water Chemistry: EARTHSYS 256, ESS 256 (Win)

2023-24

- Science of Soils: EARTHSYS 155, ESS 155 (Spr)
- Soil and Water Chemistry: ESS 256 (Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Sierra Castaneda, Jack Lamb, Adrian Wackett

Postdoctoral Faculty Sponsor

Alex Honeyman, Benjamin Maki, Ali Namayandeh, Jacob VanderRoest, Zhenglin Zhang

Doctoral Dissertation Advisor (AC)

AyoOluwateso Coker

Master's Program Advisor

Anneli Chow, Jonathon Howell

Doctoral (Program)

AyoOluwateso Coker, Kathryn Farber, Sophia Forstmann, Frida Garcia Ledezma, Katie Ann Huy, Austen Lambert, Samuel Pierce

Publications

PUBLICATIONS

- **Biogeochemical Control Points for Mitigating Metal(loid) Risk in Rice under Global Change** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Seyfferth, A. L., Fettrow, S., Muehe, E., Fang, L., Kappler, A., Fendorf, S., Borch, T.
  2026

- **Toxic cookware: lead exposure from aluminum pots in Bangladesh.** *Journal of exposure science & environmental epidemiology*
  Kim, R., Namayandeh, A., McGoran, H., Lopez, A., Sultana, J., Baker, M., Rahman, M., Luby, S. P., Fendorf, S., Forsyth, J. E.
  2026
- **Anthropogenic and Geogenic Factors Affecting Groundwater Arsenic and Potential Drinking Water Exposure in the San Luis Valley, Colorado.** *Environmental science & technology*
  Smith, R. G., Lopez, A. M., Honeyman, A. S., Carney, D., Fendorf, S., Lombard, M. A., Gribble, M. O., Al Fatta, A., James, K. A.
  2026; 60 (40): 28781-28791
- **Anthropogenic and Geogenic Factors Affecting Groundwater Arsenic and Potential Drinking Water Exposure in the San Luis Valley, Colorado** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Smith, R. G., Lopez, A. M., Honeyman, A. S., Carney, D., Fendorf, S., Lombard, M. A., Gribble, M. O., Al Fatta, A., James, K. A.
  2026
- **Rainfall defines patterns in manganese oxidation state and redox cycling along a Hawaiian rainfall gradient** *GEODERMA*
  Paulus, E. L., Vitousek, P. M., Zhu, M., Wen, K., Fendorf, S.
  2026; 470
- **Spatiotemporal Dynamics of Wildfire on Cyanobacterial Harmful Algal Blooms Proliferation** *ACS ES&T WATER*
  Coker, A., Moanga, D., Fendorf, S., White Jr, E.
  2026
- **Nonlinear Redox Transformations of Chromium in Soil during Wildfire Heating: The Critical Role of Iron Mineralogy.** *Environmental science & technology*
  Namayandeh, A., Lamb, C., Sarabia, J. L., Shakouri, M., Lopes, E., Lezama Pacheco, J., Honeyman, A., Coker, A., Stewart, B., Tikoo, S., Peak, D., Fendorf, S.
  2025
- **Temporal decoupling of metal(loid) binding and microbial adaptation in arsenic and cadmium contaminated soils under changing climates.** *Journal of hazardous materials*
  Wang, T., Roschke, C., Sánchez, N., Duncan, A. H., Namayandeh, A., Fendorf, S., da Rocha, U. N., Muehe, E. M.
  2025; 501: 140787
- **Alternate Wetting and Drying Limits Arsenic in Porewater and Rice Grain under Severe Future Climate Conditions.** *Environmental science & technology*
  Duncan, A. H., Armenta, N., Garcia-Ledezma, F., Heck, C. A., Hafner, S., Planer-Friedrich, B., Fendorf, S.
  2025
- **Towards environmental justice: A framework and strategic approach for implementing community based participatory research in the earth and environmental sciences** *ENVIRONMENTAL SCIENCE & POLICY*
  Wilson, A. M., Polk, E., Field, C. B., Fendorf, S.
  2025; 167
- **Geothermal Arsenic Threats to Intensive Groundwater Utilization in an Arid Basin.** *Environmental science & technology*
  Honeyman, A. S., Blythe, C., Lopez, A., Vajedian, S., Carney, D., Harmon, E., James, K. A., Gribble, M., Smith, R., Fendorf, S.
  2025
- **The Influence of Wildfire Smoke on Ambient PM2.5 Chemical Species Concentrations in the Contiguous US.** *Environmental science & technology*
  Krasovich Southworth, E., Qiu, M., Gould, C. F., Kawano, A., Wen, J., Heft-Neal, S., Kilpatrick Voss, K., Lopez, A., Fendorf, S., Burney, J. A., Burke, M.
  2025
- **Soil carbon concentration drives anoxic microsites across horizons, textures, and aggregate position in a California grassland** *GEODERMA*
  Lacroix, E. M., Gomes, A., Honeyman, A. S., Huy, K. R., Fendorf, S., Noel, V., Aeppli, M.
  2025; 454
- **Assessing Regional Strategies to Cope with Drought, Climate, and Environmental Flow Policy Impacts for a Sustainable Water Supply: A Case Study of the Bay Area.** *Environmental science & technology*
  Gile, B. C., Holmes, R. T., Sherris, A. R., Fendorf, S., Luthy, R. G.

2024

- **Climate induced microbiome alterations increase cadmium bioavailability in agricultural soils with pH below 7** *COMMUNICATIONS EARTH & ENVIRONMENT*
  Drabesch, S., Lechtenfeld, O. J., Bibaj, E., Ninin, J., Pachecco, J., Fendorf, S., Planer-Friedrich, B., Kappler, A., Muehe, E.
  2024; 5 (1)
- **First Insight into the Mobilization and Sequestration of Arsenic in a Karstic Soil during Redox Changes.** *Environmental science & technology*
  Wang, J., Shaheen, S. M., Swertz, A. C., Liu, C., Anderson, C. W., Fendorf, S., Wang, S. L., Feng, X., Rinklebe, J.
  2024
- **Seasonal Controls on Microbial Depolymerization and Oxidation of Organic Matter in Floodplain Soils.** *Environmental science & technology*
  Anderson, C. G., Tfaily, M. M., Chu, R. K., Tolić, N., Fox, P. M., Nico, P. S., Fendorf, S., Keiluweit, M.
  2024
- **Microbial Proxies for Anoxic Microsites Vary with Management and Partially Explain Soil Carbon Concentration.** *Environmental science & technology*
  Lacroix, E. M., Gomes, A., Heitmann, G. B., Schuler, D., Dekas, A. E., Liptzin, D., Aberle, E., Watts, D. B., Nelson, K. A., Culman, S., Fendorf, S.
  2024
- **Molecular insights and impacts of wildfire-induced soil chemical changes** *NATURE REVIEWS EARTH & ENVIRONMENT*
  Lopez, A., Avila, C. E., Vanderroest, J. P., Roth, H. K., Fendorf, S., Borch, T.
  2024
- **Water Supply Planning in the Face of Drought and Ecosystem Flows: Examining the Impact of the Bay-Delta Plan on Bay Area Water Supply.** *Environmental science & technology*
  Gile, B. C., Sherris, A. R., Holmes, R. T., Fendorf, S., Luthy, R. G.
  2024
- **X-ray chemical imaging for assessing redox microsites within soils and sediments** *FRONTIERS IN ENVIRONMENTAL CHEMISTRY*
  Noel, V., Boye, K., Naughton, H. R., Lacroix, E. M., Aeppli, M., Kumar, N., Fendorf, S., Webb, S. M.
  2024; 5
- **Mid-season drain severity impacts on rice yields, greenhouse gas emissions and heavy metal uptake in grain: evidence from on-farm studies** *FIELD CROPS RESEARCH*
  Perry, H., Carrijo, D. R., Duncan, A. H., Fendorf, S., Linquist, B. A.
  2024; 307
- **Metal toxin threat in wildland fires determined by geology and fire severity.** *Nature communications*
  Lopez, A. M., Pacheco, J. L., Fendorf, S.
  2023; 14 (1): 8007
- **Consider the Anoxic Microsite: Acknowledging and Appreciating Spatiotemporal Redox Heterogeneity in Soils and Sediments** *ACS EARTH AND SPACE CHEMISTRY*
  Lacroix, E. M., Aeppli, M., Boye, K., Brodie, E., Fendorf, S., Keiluweit, M., Naughton, H. R., Noel, V., Sihi, D.
  2023: 1592-1609
- **Molecular Nature of Mineral-Organic Associations within Redox-Active Mountainous Floodplain Sediments** *ACS EARTH AND SPACE CHEMISTRY*
  Anderson, C. G. G., Goebel, G. M. M., Tfaily, M. M. M., Fox, P. M. M., Nico, P. S. S., Fendorf, S., Keiluweit, M.
  2023
- **Quantitative Separation of Unknown Organic-Metal Complexes by Liquid Chromatography-Inductively Coupled Plasma-Mass Spectrometry.** *Analytical chemistry*
  Dewey, C., Kaplan, D. I., Fendorf, S., Boiteau, R. M.
  2023
- **Uranium surface processes with sandstone and volcanic rocks in acidic and alkaline solutions.** *Journal of colloid and interface science*
  Kenney, J. P., Lezama-Pacheco, J., Fendorf, S., Alessi, D. S., Weiss, D. J.
  2023; 645: 715-723

- **Seasonal Oxygenation of Contaminated Floodplain Soil Releases Zn to Porewater.** *Environmental science & technology*
  Dewey, C., Juillot, F., Fendorf, S., Bargar, J. R.
  2023
- **Reactive iron, not fungal community, drives organic carbon oxidation potential in floodplain soils** *SOIL BIOLOGY & BIOCHEMISTRY*
  Naughton, H. R., Tolar, B. B., Dewey, C., Keiluweit, M., Nico, P. S., Fendorf, S.
  2023; 178
- **Iron Reduction in Profundal Sediments of Ultraoligotrophic Lake Tahoe under Oxygen-Limited Conditions.** *Environmental science & technology*
  Aeppli, M., Schladow, G., Lezama Pacheco, J. S., Fendorf, S.
  2023
- **Beaver dams overshadow climate extremes in controlling riparian hydrology and water quality.** *Nature communications*
  Dewey, C., Fox, P. M., Bouskill, N. J., Dwivedi, D., Nico, P., Fendorf, S.
  2022; 13 (1): 6509
- **Assessing Analytical Methods for the Rapid Detection of Lead Adulteration in the Global Spice Market.** *Environmental science & technology*
  Lopez, A. M., Nicolini, C. M., Aeppli, M., Luby, S. P., Fendorf, S., Forsyth, J. E.
  2022
- **Redox Properties of Solid Phase Electron Acceptors Affect Anaerobic Microbial Respiration under Oxygen-Limited Conditions in Floodplain Soils.** *Environmental science & technology*
  Aeppli, M., Thompson, A., Dewey, C., Fendorf, S.
  2022
- **Contributions of anoxic microsites to soil carbon protection across soil textures** *GEODERMA*
  Lacroix, E. M., Mendillo, J., Gomes, A., Dekas, A., Fendorf, S.
  2022; 425
- **Nitrate Controls on the Extent and Type of Metal Retention in Fine-Grained Sediments of a Simulated Aquifer.** *Environmental science & technology*
  Engel, M., Noel, V., Kukkadapu, R. K., Boye, K., Bargar, J. R., Fendorf, S.
  2022
- **Field science in the age of online learning: Dynamic instruction of techniques to assess soil physical properties** *FRONTIERS IN EDUCATION*
  Hinckley, E. S., Fendorf, S.
  2022; 7
- **Mechanism of Arsenic Partitioning During Sulfidation of As-Sorbed Ferrihydrite Nanoparticles.** *ACS earth & space chemistry*
  Kumar, N., Noël, V., Besold, J., Planer-Friedrich, B., Boye, K., Fendorf, S., Brown, G. E.
  2022; 6 (7): 1666-1673
- **Mechanism of Arsenic Partitioning During Sulfidation of As-Sorbed Ferrihydrite Nanoparticles** *ACS EARTH AND SPACE CHEMISTRY*
  Kumar, N., Noel, V., Besold, J., Planer-Friedrich, B., Boye, K., Fendorf, S., Brown Jr, G. E.
  2022
- **Sulfur Biogeochemical Cycling and Redox Dynamics in a Shale-Dominated Mountainous Watershed** *JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES*
  Fox, P. M., Carrero, S., Anderson, C., Dewey, C., Keiluweit, M., Conrad, M., Naughton, H. R., Fendorf, S., Carroll, R., Dafflon, B., Malenda-Lawrence, H., Dwivedi, D., Gilbert, et al
  2022; 127 (6)
- **Mineral Protection and Resource Limitations Combine to Explain Profile-Scale Soil Carbon Persistence** *JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES*
  Lacroix, E. M., Masue-Slowey, Y., Dlott, G. A., Keiluweit, M., Chadwick, O. A., Fendorf, S.
  2022; 127 (4)
- **Residual As(V) in Aqueous Solutions After Its Removal by Synthetic Minerals** *WATER AIR AND SOIL POLLUTION*
  Dias, A., Ferreira Fontes, M., Ferreira, M., Vergutz, L., Fendorf, S.

2022; 233 (4)

- **Export of Organic Carbon from Reduced Fine-Grained Zones Governs Biogeochemical Reactivity in a Simulated Aquifer.** *Environmental science & technology*
  Aeppli, M., Babey, T., Engel, M., Lacroix, E. M., Tolar, B. B., Fendorf, S., Bargar, J. R., Boye, K.
  1800
- **Perchlorate and Agriculture on Mars** *SOIL SYSTEMS*
  Oze, C., Beisel, J., Dabsys, E., Dall, J., North, G., Scott, A., Lopez, A., Holmes, R., Fendorf, S.
  2021; 5 (3)
- **Nitrate in Drinking Water during Pregnancy and Spontaneous Preterm Birth: A Retrospective Within-Mother Analysis in California.** *Environmental health perspectives*
  Sherris, A. R., Baiocchi, M., Fendorf, S., Luby, S. P., Yang, W., Shaw, G. M.
  2021; 129 (5): 57001
- **Porewater Lead Concentrations Limited by Particulate Organic Matter Coupled With Ephemeral Iron(III) and Sulfide Phases during Redox Cycles Within Contaminated Floodplain Soils.** *Environmental science & technology*
  Dewey, C., Bargar, J. R., Fendorf, S.
  2021
- **The effect of porewater ionic composition on arsenate adsorption to clay minerals.** *The Science of the total environment*
  Fakhreddine, S., Fendorf, S.
  2021; 785: 147096
- **Development of energetic and enzymatic limitations on microbial carbon cycling in soils** *BIOGEOCHEMISTRY*
  Naughton, H. R., Keiluweit, M., Tfaily, M. M., Dynes, J. J., Regier, T., Fendorf, S.
  2021; 153 (2): 191–213
- **Effects of moisture and physical disturbance on pore-scale oxygen content and anaerobic metabolisms in upland soils.** *The Science of the total environment*
  Lacroix, E. M., Rossi, R. J., Bossio, D., Fendorf, S.
  2021; 780: 146572
- **Geochemical signatures and natural background values of rare earth elements in soils of Brazilian Amazon.** *Environmental pollution (Barking, Essex : 1987)*
  Ferreira, M. d., Fontes, M. P., Bellato, C. R., Marques Neto, J. d., Lima, H. N., Fendorf, S.
  2021; 277: 116743
- **Simulated Aquifer Heterogeneity Leads to Enhanced Attenuation and Multiple Retention Processes of Zinc.** *Environmental science & technology*
  Engel, M., Boye, K., Noel, V., Babey, T., Bargar, J. R., Fendorf, S.
  2021
- **Human health risk assessment and geochemical mobility of rare earth elements in Amazon soils.** *The Science of the total environment*
  da Silva Ferreira, M., Fontes, M. P., Lima, M. T., Cordeiro, S. G., Wyatt, N. L., Lima, H. N., Fendorf, S.
  2021: 151191
- **Bone manganese is a sensitive biomarker of ongoing elevated manganese exposure, but does not accumulate across the lifespan.** *Environmental research*
  Conley, T. E., Richardson, C., Pacheco, J., Dave, N., Jursa, T., Guazzetti, S., Lucchini, R. G., Fendorf, S., Ritchie, R. O., Smith, D. R.
  2021: 112355
- **Effect of Bicarbonate, Calcium, and pH on the Reactivity of As(V) and U(VI) Mixtures.** *Environmental science & technology*
  Gonzalez-Estrella, J., Meza, I., Burns, A. J., Ali, A. S., Lezama-Pacheco, J. S., Lichtner, P., Shaikh, N., Fendorf, S., Cerrato, J. M.
  2020
- **Complexation by Organic Matter Controls Uranium Mobility in Anoxic Sediments.** *Environmental science & technology*
  Bone, S. E., Cliff, J. n., Weaver, K. n., Takacs, C. J., Roycroft, S. n., Fendorf, S. n., Bargar, J. R.
  2020

- **Arsenic Fate in Peat Controlled by the pH-Dependent Role of Reduced Sulfur.** *Environmental science & technology*
  Eberle, A. n., Besold, J. n., Kerl, C. F., Lezama-Pacheco, J. S., Fendorf, S. n., Planer-Friedrich, B. n.
  2020
- **Calcium-Uranyl-Carbonato Species Kinetically Limit U(VI) Reduction by Fe(II) and Lead to U(V)-Bearing Ferrihydrite.** *Environmental science & technology*
  Dewey, C. n., Sokaras, D. n., Kroll, T. n., Bargar, J. R., Fendorf, S. n.
  2020
- **Contribution of clay-aquitard to aquifer iron concentrations and water quality.** *The Science of the total environment*
  Liu, Y. n., Ma, T. n., Chen, J. n., Xiao, C. n., Liu, R. n., Du, Y. n., Fendorf, S. n.
  2020; 741: 140061
- **Organic compounds alter the preference and rates of heavy metal adsorption on ferrihydrite.** *The Science of the total environment*
  Engel, M. n., Lezama Pacheco, J. S., Noël, V. n., Boye, K. n., Fendorf, S. n.
  2020; 750: 141485
- **Redox Heterogeneities Promote Thioarsenate Formation and Release into Groundwater from Low Arsenic Sediments.** *Environmental science & technology*
  Kumar, N. n., Noël, V. n., Planer-Friedrich, B. n., Besold, J. n., Lezama-Pacheco, J. n., Bargar, J. R., Brown, G. E., Fendorf, S. n., Boye, K. n.
  2020
- **Soil and Aquifer Properties Combine as Predictors of Groundwater Uranium Concentrations within the Central Valley, California** *Environmental Science & Technology*
  Lopez, A. M., Wells, A., Fendorf, S.
  2020: 10
- **Controlling Arsenic Mobilization during Managed Aquifer Recharge: The Role of Sediment Heterogeneity.** *Environmental science & technology*
  Fakhreddine, S. n., Prommer, H. n., Gorelick, S. M., Dadakis, J. n., Fendorf, S. n.
  2020; 54 (14): 8728–38
- **Governing Constraints of Chromium(VI) Formation from Chromium(III)-Bearing Minerals in Soils and Sediments** *SOIL SYSTEMS*
  Hausladen, D., Fakhreddine, S., Fendorf, S.
  2019; 3 (4)
- **Lithologic and redox controls on hexavalent chromium in vadose zone sediments of California's Central Valley** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  McClain, C. N., Fendorf, S., Johnson, S. T., Menendez, A., Maher, K.
  2019; 265: 478–94
- **Rice production threatened by coupled stresses of climate and soil arsenic.** *Nature communications*
  Muehe, E. M., Wang, T., Kerl, C. F., Planer-Friedrich, B., Fendorf, S.
  2019; 10 (1): 4985
- **Sources of Blood Lead Exposure in Rural Bangladesh** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Forsyth, J. E., Weaver, K. L., Maher, K., Islam, M., Raqib, R., Rahman, M., Fendorf, S., Luby, S. P.
  2019; 53 (19): 11429–36
- **Predicting drivers of groundwater Cr(VI) contamination in the Central Valley, CA: Integrated multivariate statistical & geospatial approach**
  Lopez, A., Caers, J., Fendorf, S.
  AMER CHEMICAL SOC.2019
- **Protecting groundwater quality from geogenic and emerging contaminants in actively managed aquifers**
  Fakhreddine, S., Sherris, A., Lopez, A., Wells, A., Holmes, R., Nico, P., Babbitt, C., Fendorf, S.
  AMER CHEMICAL SOC.2019
- **How natural organic compounds influence zinc retention by iron oxides**
  Engel, M., Fendorf, S.
  AMER CHEMICAL SOC.2019

- **Influence of redox interfaces on metal(loid) contaminant mobility in shallow alluvial groundwater aquifers**
  Boye, K., Kumar, N., Noel, V., Bargar, J., Fendorf, S.
  AMER CHEMICAL SOC.2019
- **Simplex-Centroid mixture design applied to arsenic (V) removal from waters using synthetic minerals** *JOURNAL OF ENVIRONMENTAL MANAGEMENT*
  Dias, A., Ferreira Fontes, M., Reis, C., Bellato, C., Fendorf, S.
  2019; 238: 92–101
- **Antimonite Complexation with Thiol and Carboxyl/Phenol Groups of Peat Organic Matter** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Besold, J., Kumar, N., Scheinost, A. C., Pacheco, J., Fendorf, S., Planer-Friedrich, B.
  2019; 53 (9): 5005–15
- **Simplex-Centroid mixture design applied to arsenic (V) removal from waters using synthetic minerals.** *Journal of environmental management*
  Dias, A. C., Fontes, M. P., Reis, C., Bellato, C. R., Fendorf, S.
  2019; 238: 92–101
- **Sedimentogenesis and hydrobiogeochemistry of high arsenic Late Pleistocene-Holocene aquifer systems** *EARTH-SCIENCE REVIEWS*
  Wang, Y., Pi, K., Fendorf, S., Deng, Y., Xie, X.
  2019; 189: 79–98
- **Antimonite Complexation with Thiol and Carboxyl/Phenol Groups of Peat Organic Matter.** *Environmental science & technology*
  Besold, J. n., Kumar, N. n., Scheinost, A. C., Lezama Pacheco, J. n., Fendorf, S. n., Planer-Friedrich, B. n.
  2019
- **Turmeric means "yellow" in Bengali: Lead chromate pigments added to turmeric threaten public health across Bangladesh.** *Environmental research*
  Forsyth, J. E., Nurunnahar, S. n., Islam, S. S., Baker, M. n., Yeasmin, D. n., Islam, M. S., Rahman, M. n., Fendorf, S. n., Ardoin, N. M., Winch, P. J., Luby, S. P.
  2019; 179 (Pt A): 108722
- **Antimonite Binding to Natural Organic Matter: Spectroscopic Evidence from a Mine Water Impacted Peatland.** *Environmental science & technology*
  Besold, J. n., Eberle, A. n., Noël, V. n., Kujala, K. n., Kumar, N. n., Scheinost, A. C., Pacheco, J. L., Fendorf, S. n., Planer-Friedrich, B. n.
  2019
- **Experimental constrains on redox-induced arsenic release and retention from aquifer sediments in the central Yangtze River Basin.** *The Science of the total environment*
  Duan, Y., Schaefer, M. V., Wang, Y., Gan, Y., Yu, K., Deng, Y., Fendorf, S.
  2018; 649: 629–39
- **Quantifying biogeochemical heterogeneity in soil systems** *GEODERMA*
  Wanzek, T., Keiluweit, M., Baham, J., Dragila, M. I., Fendorf, S., Fiedler, S., Nico, P. S., Kleber, M.
  2018; 324: 89–97
- **Hexavalent Chromium Sources and Distribution in California Groundwater** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Hausladen, D. M., Alexander-Ozinskas, A., McClain, C., Fendorf, S.
  2018; 52 (15): 8242–51
- **Overpumping leads to California groundwater arsenic threat.** *Nature communications*
  Smith, R., Knight, R., Fendorf, S.
  2018; 9 (1): 2089
- **Prevalence of elevated blood lead levels among pregnant women and sources of lead exposure in rural Bangladesh: A case control study.** *Environmental research*
  Forsyth, J. E., Saiful Islam, M., Parvez, S. M., Raqib, R., Sajjadur Rahman, M., Marie Muehe, E., Fendorf, S., Luby, S. P.
  2018; 166: 1–9
- **Discerning Microbially Mediated Processes During Redox Transitions in Flooded Soils Using Carbon and Energy Balances** *FRONTIERS IN ENVIRONMENTAL SCIENCE*
  Boye, K., Herrmann, A. M., Schaefer, M., Tfaily, M. M., Fendorf, S.

2018; 6

- **Oxidative uranium release from anoxic sediments under diffusion-limited conditions**
  Bone, S., Cahill, M., Jones, M., Fendorf, S., Davis, J., Williams, K., Bargar, J.
  AMER CHEMICAL SOC.2018
- **Vertical transport of uranium in the unsaturated zone: A likely plume persistence mechanism**
  Roycroft, S., Noel, V., Boye, K., Johnson, R., Dam, W., Fendorf, S., Bargar, J.
  AMER CHEMICAL SOC.2018
- **Understanding the natural mechanisms for chromium mobilization in groundwater**
  Houlihan, M., Lopez, A., Fendorf, S.
  AMER CHEMICAL SOC.2018
- **Intimate and complex coupling of carbon and iron cycles within terrestrial systems**
  Fendorf, S., Keiluweit, M., Schaefer, M., Masue-Slowey, Y., Chadwick, O.
  AMER CHEMICAL SOC.2018
- **Anoxic microsites in upland soils dominantly controlled by clay content** *SOIL BIOLOGY & BIOCHEMISTRY*
  Keiluweit, M., Gee, K., Denney, A., Fendorf, S.
  2018; 118: 42–50
- **Arsenic leaching from ceramic water filters** *ENVIRONMENTAL SCIENCE-WATER RESEARCH & TECHNOLOGY*
  Schaefer, M. V., Shantz, A., Fendorf, S., Ying, S. C.
  2018; 4 (2): 234–40
- **Synchrotron X-Ray Fluorescence Analysis** *ENCYCLOPEDIA OF GEOCHEMISTRY: A COMPREHENSIVE REFERENCE SOURCE ON THE CHEMISTRY OF THE EARTH*
  Pacheco, J., Fendorf, S. E.
  edited by White, W. M.
  2018: 1415–17
- **Fate of arsenic before and after chemical-enhanced washing of an arsenic-containing soil in Hong Kong** *SCIENCE OF THE TOTAL ENVIRONMENT*
  Beiyuan, J., Li, J., Tsang, D. C. W., Wang, L., Poon, C., Li, X., Fendorf, S.
  2017; 599: 679–88
- **Anaerobic microsites have an unaccounted role in soil carbon stabilization** *NATURE COMMUNICATIONS*
  Keiluweit, M., Wanzek, T., Kleber, M., Nico, P., Fendorf, S.
  2017; 8
- **Anaerobic microsites have an unaccounted role in soil carbon stabilization.** *Nature communications*
  Keiluweit, M., Wanzek, T., Kleber, M., Nico, P., Fendorf, S.
  2017; 8 (1): 1771
- **Partitioning of uranyl between ferrihydrite and humic substances at acidic and circum-neutral pH** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Dublet, G., Pacheco, J., Bargar, J. R., Fendorf, S., Kumar, N., Lowry, G. V., Brown, G. E.
  2017; 215: 122–40
- **Oxidative Uranium Release from Anoxic Sediments under Diffusion-Limited Conditions** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Bone, S. E., Cahill, M. R., Jones, M. E., Fendorf, S., Davis, J., Williams, K. H., Bargar, J. R.
  2017; 51 (19): 11039–47
- **Arsenic-containing soil from geogenic source in Hong Kong: Leaching characteristics and stabilization/solidification** *CHEMOSPHERE*
  Li, J., Beiyuan, J., Tsang, D. C. W., Wang, L., Poon, C., Li, X., Fendorf, S.
  2017; 182: 31–39
- **Depth Stratification Leads to Distinct Zones of Manganese and Arsenic Contaminated Groundwater** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Ying, S. C., Schaefer, M. V., Cock-Esteb, A., Li, J., Fendorf, S.
  2017; 51 (16): 8926–32

- **Thermodynamically controlled preservation of organic carbon in floodplains** *NATURE GEOSCIENCE*
  Boye, K., Noel, V., Tfaily, M. M., Bone, S. E., Williams, K. H., Bargar, J. R., Fendorf, S.
  2017; 10 (6): 415-+
- **Understanding controls on redox processes in floodplain sediments of the Upper Colorado River Basin.** *The Science of the total environment*
  Noël, V., Boye, K., Kukkadapu, R. K., Bone, S., Lezama Pacheco, J. S., Cardarelli, E., Janot, N., Fendorf, S., Williams, K. H., Bargar, J. R.
  2017
- **Hexavalent Chromium Generation within Naturally Structured Soils and Sediments** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Hausladen, D. M., Fendorf, S.
  2017; 51 (4): 2058-2067
- **Quantifying Cr(VI) Production and Export from Serpentine Soil of the California Coast Range** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  McClain, C. N., Fendorf, S., Webb, S. M., Maher, K.
  2017; 51 (1): 141-149
- **Anoxic oxidation of chromium** *GEOLOGY*
  Oze, C., Sleep, N. H., Coleman, R. G., Fendorf, S.
  2016; 44 (7): 543-546
- **Aquifer Arsenic Cycling Induced by Seasonal Hydrologic Changes within the Yangtze River Basin** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Schaefer, M. V., Ying, S. C., Benner, S. G., Duan, Y., Wang, Y., Fendorf, S.
  2016; 50 (7): 3521-3529
- **Numerical Modeling of Arsenic Mobility during Reductive Iron-Mineral Transformations** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Rawson, J., Prommer, H., Siade, A., Carr, J., Berg, M., Davis, J. A., Fendorf, S.
  2016; 50 (5): 2459-2467
- **Imaging geochemical heterogeneities using inverse reactive transport modeling: An example relevant for characterizing arsenic mobilization and distribution** *ADVANCES IN WATER RESOURCES*
  Fakhreddine, S., Lee, J., Kitanidis, P. K., Fendorf, S., Rolle, M.
  2016; 88: 186-197
- **Are oxygen limitations under recognized regulators of organic carbon turnover in upland soils?** *BIOGEOCHEMISTRY*
  Keiluweit, M., Nico, P. S., Kleber, M., Fendorf, S.
  2016; 127 (2-3): 157-171
- **Physico-Chemical Heterogeneity of Organic-Rich Sediments in the Rifle Aquifer, CO: Impact on Uranium Biogeochemistry** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Janot, N., Pacheco, J. S., Pham, D. Q., O'Brien, T. M., Hausladen, D., Noel, V., Lallier, F., Maher, K., Fendorf, S., Williams, K. H., Long, P. E., Bargar, J. R.
  2016; 50 (1): 46-53
- **Physico-Chemical Heterogeneity of Organic-Rich Sediments in the Rifle Aquifer, CO: Impact on Uranium Biogeochemistry.** *Environmental science & technology*
  Janot, N., Lezama Pacheco, J. S., Pham, D. Q., O'Brien, T. M., Hausladen, D., Noël, V., Lallier, F., Maher, K., Fendorf, S., Williams, K. H., Long, P. E., Bargar, J. R.
  2016; 50 (1): 46-53
- **Arsenic release metabolically limited to permanently water-saturated soil in Mekong Delta** *NATURE GEOSCIENCE*
  Stuckey, J., Schaefer, M. V., Kocar, B. D., Benner, S. G., Fendorf, S.
  2016; 9 (1): 70-?
- **Delineating the Convergence of Biogeochemical Factors Responsible for Arsenic Release to Groundwater in South and Southeast Asia** *ADVANCES IN AGRONOMY, VOL 140*
  Stuckey, J. W., Sparks, D. L., Fendorf, S.
  2016; 140: 43-74

- **Reactivity and speciation of mineral-associated arsenic in seasonal and permanent wetlands of the Mekong Delta** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Stuckey, J. W., Schaefer, M. V., Benner, S. G., Fendorf, S.
  2015; 171: 143-155
- **Indigenous arsenic(V)-reducing microbial communities in redox-fluctuating near-surface sediments of the Mekong Delta** *GEOBIOLOGY*
  Ying, S. C., DAMASHEK, J., Fendorf, S., Francis, C. A.
  2015; 13 (6): 581-587
- **Assessment of human-natural system characteristics influencing global freshwater supply vulnerability** *ENVIRONMENTAL RESEARCH LETTERS*
  Padowski, J. C., Gorelick, S. M., Thompson, B. H., Rozelle, S., Fendorf, S.
  2015; 10 (10)
- **Geochemical Triggers of Arsenic Mobilization during Managed Aquifer Recharge** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Fakhreddine, S., Dittmar, J., Phipps, D., Dadakis, J., Fendorf, S.
  2015; 49 (13): 7802-7809
- **Geochemical Triggers of Arsenic Mobilization during Managed Aquifer Recharge.** *Environmental science & technology*
  Fakhreddine, S., Dittmar, J., Phipps, D., Dadakis, J., Fendorf, S.
  2015; 49 (13): 7802-9
- **Stable Isotopes and Iron Oxide Mineral Products as Markers of Chemodenitrification** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Jones, L. C., Peters, B., Pacheco, J. S., Casciotti, K. L., Fendorf, S.
  2015; 49 (6): 3444-3452
- **Peat formation concentrates arsenic within sediment deposits of the Mekong Delta** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Stuckey, J. W., Schaefer, M. V., Kocar, B. D., Dittmar, J., Pacheco, J. L., Benner, S. G., Fendorf, S.
  2015; 149: 190-205
- **Competing retention pathways of uranium upon reaction with Fe(II)** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Massey, M. S., Lezama-Pacheco, J. S., Jones, M. E., Ilton, E. S., Cerrato, J. M., Bargar, J. R., Fendorf, S.
  2014; 142: 166-185
- **Uranium incorporation into aluminum-substituted ferrihydrite during iron(ii)-induced transformation.** *Environmental science. Processes & impacts*
  Massey, M. S., Lezama-Pacheco, J. S., Michel, F. M., Fendorf, S.
  2014; 16 (9): 2137-2144
- **Uranium Incorporation into Amorphous Silica** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Massey, M. S., Lezama-Pacheco, J. S., Nelson, J. M., Fendor, S., Maher, K.
  2014; 48 (15): 8636-8644
- **Arsenic in the Multi-aquifer System of the Mekong Delta, Vietnam: Analysis of Large-Scale Spatial Trends and Controlling Factors.** *Environmental science & technology*
  Erban, L. E., Gorelick, S. M., Fendorf, S.
  2014; 48 (11): 6081-6088
- **Arsenic Concentrations in Paddy Soil and Rice and Health Implications for Major Rice-Growing Regions of Cambodia** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Seyfferth, A. L., McCurdy, S., Schaefer, M. V., Fendorf, S.
  2014; 48 (9): 4699-4706
- **Constraints on Precipitation of the Ferrous Arsenite Solid H7Fe4(AsO3)(5)** *JOURNAL OF ENVIRONMENTAL QUALITY*
  Masue-Slowey, Y., Slowey, A. J., Michel, F. M., Webb, S. M., Fendorf, S.
  2014; 43 (3): 947-954
- **Deciphering and predicting spatial and temporal concentrations of arsenic within the Mekong Delta aquifer** *ENVIRONMENTAL CHEMISTRY*
  Kocar, B. D., Benner, S. G., Fendorf, S.
  2014; 11 (5): 579-594

- **Seasonal dynamics of dissolved silicon in a rice cropping system after straw incorporation** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Seyfferth, A. L., Kocar, B. D., Lee, J. A., Fendorf, S.
  2013; 123: 120-133
- **Influence of Soil Geochemical and Physical Properties on Chromium(VI) Sorption and Bioaccessibility** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Jardine, P. M., Stewart, M. A., Barnett, M. O., Basta, N. T., Brooks, S. C., Fendorf, S., Mehlhorn, T. L.
  2013; 47 (19): 11241-11248
- **Release of arsenic to deep groundwater in the Mekong Delta, Vietnam, linked to pumping-induced land subsidence.** *Proceedings of the National Academy of Sciences of the United States of America*
  Erban, L. E., Gorelick, S. M., Zebker, H. A., Fendorf, S.
  2013; 110 (34): 13751-13756
- **Dependence of Arsenic Fate and Transport on Biogeochemical Heterogeneity Arising from the Physical Structure of Soils and Sediments** *JOURNAL OF ENVIRONMENTAL QUALITY*
  Masue-Slowey, Y., Ying, S. C., Kocar, B. D., Pallud, C. E., Fendorf, S.
  2013; 42 (4): 1119-1129
- **Dependence of arsenic fate and transport on biogeochemical heterogeneity arising from the physical structure of soils and sediments.** *Journal of environmental quality*
  Masue-Slowey, Y., Ying, S. C., Kocar, B. D., Pallud, C. E., Fendorf, S.
  2013; 42 (4): 1119-1129
- **Distributed microbially- and chemically-mediated redox processes controlling arsenic dynamics within Mn-/Fe-oxide constructed aggregates** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Ying, S. C., Masue-Slowey, Y., Kocar, B. D., Griffis, S. D., Webb, S., Marcus, M. A., Francis, C. A., Fendorf, S.
  2013; 104: 29-41
- **Morphological Adaptations for Digging and Climate-Impacted Soil Properties Define Pocket Gopher (Thomomys spp.) Distributions.** *PloS one*
  Marcy, A. E., Fendorf, S., Patton, J. L., Hadly, E. A.
  2013; 8 (5)
- **Silicate Mineral Impacts on the Uptake and Storage of Arsenic and Plant Nutrients in Rice (Oryza sativa L.)** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Seyfferth, A. L., Fendorf, S.
  2012; 46 (24): 13176-13183
- **Oxidation and competitive retention of arsenic between iron- and manganese oxides** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Ying, S. C., Kocar, B. D., Fendorf, S.
  2012; 96: 294-303
- **Intra-particle migration of mercury in granular polysulfide-rubber-coated activated carbon (PSR-AC)** *CHEMOSPHERE*
  Kim, E., Masue-Slowey, Y., Fendorf, S., Luthy, R. G.
  2012; 86 (6): 648-654
- **Native and Non-Native Community Assembly through Edaphic Manipulation: Implications for Habitat Creation and Restoration** *RESTORATION ECOLOGY*
  Bonebrake, T. C., Navratil, R. T., Boggs, C. L., Fendorf, S., Field, C. B., Ehrlichl, P. R.
  2011; 19 (6): 709-716
- **Defining the distribution of arsenic species and plant nutrients in rice (Oryza sativa L.) from the root to the grain** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Seyfferth, A. L., Webb, S. M., Andrews, J. C., Fendorf, S.
  2011; 75 (21): 6655-6671
- **Geochemical Processes Governing the Fate and Transport of Chromium(III) and Chromium(VI) in Soils** *VADOSE ZONE JOURNAL*
  Jardine, P. M., Mehlhorn, T. L., Bailey, W. B., Brooks, S. C., Fendorf, S., Gentry, R. W., Phelps, T. J., Saiers, J. E.
  2011; 10 (3): 1058-1070

- **Competitive Microbially and Mn Oxide Mediated Redox Processes Controlling Arsenic Speciation and Partitioning** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Ying, S. C., Kocar, B. D., Griffis, S. D., Fendorf, S.
  2011; 45 (13): 5572-5579
- **Reduction of Uranium(VI) by Soluble Iron(II) Conforms with Thermodynamic Predictions** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Du, X., Boonchayaanant, B., Wu, W., Fendorf, S., Bargar, J., Criddle, C. S.
  2011; 45 (11): 4718-4725
- **Dehalogenation of Polybrominated Diphenyl Ethers and Polychlorinated Biphenyl by Bimetallic, Impregnated, and Nanoscale Zerovalent Iron** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Zhuang, Y., Ahn, S., Seyfferth, A. L., Masue-Slowey, Y., Fendorf, S., Luthy, R. G.
  2011; 45 (11): 4896-4903
- **Alteration of ferrihydrite reductive dissolution and transformation by adsorbed As and structural Al: Implications for As retention** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Masue-Slowey, Y., Loeppert, R. H., Fendorf, S.
  2011; 75 (3): 870-886
- **Influence of Natural Organic Matter on As Transport and Retention** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Sharma, P., Rolle, M., Kocar, B., Fendorf, S., Kappler, A.
  2011; 45 (2): 546-553
- **Transport Implications Resulting from Internal Redistribution of Arsenic and Iron within Constructed Soil Aggregates** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Masue-Slowey, Y., Kocar, B. D., Jofre, S. A., Mayer, K. U., Fendorf, S.
  2011; 45 (2): 582-588
- **Short-term fates of high sulfur inputs in Northern California vineyard soils** *NUTRIENT CYCLING IN AGROECOSYSTEMS*
  Hinckley, E. S., Fendorf, S., Matson, P.
  2011; 89 (1): 135-142
- **Competitive Mn-oxide and microbially mediated redox process controlling arsenic speciation and partitioning** *Environmental Science & Technology*
  Ying, S. C., Kocar, B. D., Griffis, S., Fendorf, S.
  2011; 45: 5572-5577
- **Effect of Uranium(VI) Speciation on Simultaneous Microbial Reduction of Uranium(VI) and Iron(III)** *JOURNAL OF ENVIRONMENTAL QUALITY*
  Stewart, B. D., Amos, R. T., Fendorf, S.
  2011; 40 (1): 90-97
- **Immobilization of Hg(II) in water with polysulfide-rubber (PSR) polymer-coated activated carbon** *WATER RESEARCH*
  Kim, E., Seyfferth, A. L., Fendorf, S., Luthy, R. G.
  2011; 45 (2): 453-460
- **Influence of Uranyl Speciation and Iron Oxides on Uranium Biogeochemical Redox Reactions** *GEOMICROBIOLOGY JOURNAL*
  Stewart, B. D., Amos, R. T., Nico, P. S., Fendorf, S.
  2011; 28 (5-6): 444-456
- **Arsenic Localization, Speciation, and Co-Occurrence with Iron on Rice (Oryza sativa L.) Roots Having Variable Fe Coatings** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Seyfferth, A. L., Webb, S. M., Andrews, J. C., Fendorf, S.
  2010; 44 (21): 8108-8113
- **Spatial and Temporal Variations of Groundwater Arsenic in South and Southeast Asia** *SCIENCE*
  Fendorf, S., Michael, H. A., van Geen, A.
  2010; 328 (5982): 1123-1127
- **Aggregate-scale spatial heterogeneity in reductive transformation of ferrihydrite resulting from coupled biogeochemical and physical processes** *GEOCHIMICA ET COSMOCHIMICA ACTA*

Pallud, C., Masue-Slowey, Y., Fendorf, S.
2010; 74 (10): 2811-2825

- **Impact of Uranyl-Calcium-Carbonato Complexes on Uranium(VI) Adsorption to Synthetic and Natural Sediments** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Stewart, B. D., Mayes, M. A., Fendorf, S.
  2010; 44 (3): 928-934
- **Arsenic repartitioning during biogenic sulfidization and transformation of ferrihydrite** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Kocar, B. D., Borch, T., Fendorf, S.
  2010; 74 (3): 980-994
- **Kinetic and Mechanistic Constraints on the Oxidation of Biogenic Uraninite by Ferrihydrite** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Ginder-Vogel, M., Stewart, B., Fendorf, S.
  2010; 44 (1): 163-169
- **Arsenic Chemistry in Soils and Sediments** *Synchrotron-Based Techniques in Soils and Sediments. Elsevier Publishing*
  Fendorf, S., Nico, P. S., Kocar, B. D., Masue, Y., Tufano, K. J.
  edited by Singh, B., Grafe, M.
  2010: 357–378
- **Arsenic in South Asia Groundwater** *Geography Compass*
  Benner, S. G., Fendorf, S.
  2010; 4: 1532-1552
- **Spatial Patterns and Modeling of Reductive Ferrihydrite Transformation Observed in Artificial Soil Aggregates** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Pallud, C., Kausch, M., Fendorf, S., Meile, C.
  2010; 44 (1): 74-79
- **Microbial and metal water quality in rain catchments compared with traditional drinking water sources in the East Sepik Province, Papua New Guinea** *JOURNAL OF WATER AND HEALTH*
  Horak, H. M., Chynoweth, J. S., Myers, W. P., Davis, J., Fendorf, S., Boehm, A. B.
  2010; 8 (1): 126-138
- **Aggregate-Scale Heterogeneity in Iron (Hydr)oxide Reductive Transformations** *VADOSE ZONE JOURNAL*
  Tufano, K. J., Benner, S. G., Mayer, K. U., Marcus, M. A., Nico, P. S., Fendorf, S.
  2009; 8 (4): 1004-1012
- **Incorporation of Oxidized Uranium into Fe (Hydr)oxides during Fe(II) Catalyzed Remineralization** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Nico, P. S., Stewart, B. D., Fendorf, S.
  2009; 43 (19): 7391-7396
- **Stability of Uranium Incorporated into Fe (Hydr)oxides under Fluctuating Redox Conditions** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Stewart, B. D., Nico, P. S., Fendorf, S.
  2009; 43 (13): 4922-4927
- **Thermodynamic Constraints on Reductive Reactions Influencing the Biogeochemistry of Arsenic in Soils and Sediments** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Kocar, B. D., Fendorf, S.
  2009; 43 (13): 4871-4877
- **Time-lapse geophysical imaging of soil moisture dynamics in tropical deltaic soils: An aid to interpreting hydrological and geochemical processes** *WATER RESOURCES RESEARCH*
  Robinson, D. A., Lebron, I., Kocar, B., Phan, K., Sampson, M., Crook, N., Fendorf, S.
  2009; 45
- **BIOGEOCHEMICAL PROCESSES CONTROLLING THE FATE AND TRANSPORT OF ARSENIC: IMPLICATIONS FOR SOUTH AND SOUTHEAST ASIAm** *ADVANCES IN AGRONOMY, VOLUME 104*
  Fendorf, S., Kocar, B. D.

2009; 104: 137-164

- **Incorporation of uranium(VI) into Fe(hydr)oxides during Fe(II) catalyzed remineralization** *Environmental Science & Technology*
  Nico, P. S., Stewart, B. D., Fendorf, S..
  2009; 43: 7391-7396
- **Spatial patterns of iron transformations within artificial soil aggregates: Experimental and modeling analysis of diffusion limited iron cycling** *Environmental Science & Technology*
  Pallud, C., Kausch, M., Fendorf, S., Meile, C.
  2009; 43: 74-79
- **Reductive Processes Controlling Arsenic Retention: Revealing the Relative Importance of Iron and Arsenic Reduction** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Tufano, K. J., Reyes, C., Saltikov, C. W., Fendorf, S.
  2008; 42 (22): 8283-8289
- **Groundwater flow in an arsenic-contaminated aquifer, Mekong Delta, Cambodia** *APPLIED GEOCHEMISTRY*
  Benner, S. G., Polizzotto, M. L., Kocar, B. D., Ganguly, S., Phan, K., Ouch, K., Sampson, M., Fendorf, S.
  2008; 23 (11): 3072-3087
- **Integrated biogeochemical and hydrologic processes driving arsenic release from shallow sediments to groundwaters of the Mekong delta** *APPLIED GEOCHEMISTRY*
  Kocar, B. D., Polizzotto, M. L., Benner, S. G., Ying, S. C., Ung, M., Ouch, K., Samreth, S., Suy, B., Phan, K., Sampson, M., Fendorf, S.
  2008; 23 (11): 3059-3071
- **Depositional influences on porewater arsenic in sediments of a mining-contaminated freshwater lake** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Toevs, G., Morra, M. J., Winowiecki, L., Strawn, D., Polizzotto, M. L., Fendorf, S.
  2008; 42 (18): 6823-6829
- **Near-surface wetland sediments as a source of arsenic release to ground water in Asia** *NATURE*
  Polizzotto, M. L., Kocar, B. D., Benner, S. G., Sampson, M., Fendorf, S.
  2008; 454 (7203): 505-U5
- **Confounding impacts of iron reduction on arsenic retention** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Tufano, K. J., Fendorf, S.
  2008; 42 (13): 4777-4783
- **Changes in bacterial and archaeal community structure and functional diversity along a geochemically variable soil profile** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
  Hansel, C. M., Fendorf, S., Jardine, P. M., Francis, C. A.
  2008; 74 (5): 1620-1633
- **Decreasing lead bioaccessibility in industrial and firing range soils with phosphate-based amendments** *Journal of Environmental Quality*
  Mosely, R. A., Barnett, M. O., Stewart, M. A., Mehlhorn, T. L., Jardine, P. M., Ginder-Vogel, M., Fendorf, S.
  2008; 37: 2116-2124
- **Speciation-dependent microbial reduction of uranium within iron-coated sands** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Neiss, J., Stewart, B. D., Nico, P. S., Fendorf, S.
  2007; 41 (21): 7343-7348
- **In situ bioreduction of uranium (VI) to submicromolar levels and reoxidation by dissolved oxygen** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Wu, W., Carley, J., Luo, J., Ginder-Vogel, M. A., Cardenas, E., Leigh, M. B., Hwang, C., Kelly, S. D., Ruan, C., Wu, L., Van Nostrand, J., Gentry, T., Lowe, et al
  2007; 41 (16): 5716-5723
- **Genesis of hexavalent chromium from natural sources in soil and groundwater** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Oze, C., Bird, D. K., Fendorf, S.
  2007; 104 (16): 6544-6549

- **Quantifying constraints imposed by calcium and iron on bacterial reduction of uranium(VI)** *JOURNAL OF ENVIRONMENTAL QUALITY*
  Stewart, B. D., Neiss, J., Fendorf, S.
  2007; 36 (2): 363-372
- **Reduction of Cr(VI) under acidic conditions by the facultative Fe(III)-reducing bacterium Acidiphilium cryptum** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Cummings, D. E., Fendorf, S., Singh, N., Sani, R. K., Peyton, B. M., Magnuson, T. S.
  2007; 41 (1): 146-152
- **Biogeochemical uranium redox transformations: Potential oxidants of uraninite** *Adsorption to Geomedia*
  Ginder-Vogel, M., Fendorf, S.
  edited by Barnett, M. A., Kent, D. B.
  Academic Press, NY.2007: 293–321
- **Biogeochemical processes controlling the cycling of arsenic in soils and sediments** *Biophysico-Chemical Processes of Heavy Metals and Metalloids in Soil Environments. IUPAC Division VI-Chemistry and the Environment*
  Fendorf, S. M., Herbel, J., Tufano, K. J., Kocar, B.
  edited by Violante, A., Huang, P. M., Gadd, G.
  John Wiley & Sons, Chichester, England.2007: 313–338
- **Phosphate interactions with iron (hydr)oxides: Mineralization pathways and phosphorus retention upon bioreduction** *Adsorption to Geomedia*
  Borch, T., Fendorf, S.
  edited by Barnett, M. A., Kent, D. B.
  Academic Press, NY .2007: 322–348
- **Micro-scale heterogeneity in biogeochemical uranium cycling** *13th International Conference on X-Ray Absorption Fine Structure (XAFS13)*
  Ginder-Vogel, M., Wu, W., Kelly, S., Criddle, C. S., Carley, J., Jardine, P., Kemner, K. A., Fendorf, S.
  AMER INST PHYSICS.2007: 190–192
- **Phosphate imposed limitations on biological reduction and alteration of ferrihydrite** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Borch, T., Masue, Y., Kukkadapu, R. K., Fendorf, S.
  2007; 41 (1): 166-172
- **Elucidating biogeochemical reduction of chromate via carbon amendments and soil sterilization** *GEOMICROBIOLOGY JOURNAL*
  Bank, T. L., Vishnivetskaya, T. A., Jardine, P. M., Ginder-Vogel, M. A., Fendorf, S., Baldwin, M. E.
  2007; 24 (2): 125-132
- **Contrasting effects of dissimilatory iron(III) and arsenic(V) reduction on arsenic retention and transport** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Kocar, B. D., Herbel, M. J., Tufano, K. J., Fendorf, S.
  2006; 40 (21): 6715-6721
- **Heterogeneous response to biostimulation for U(VI) reduction in replicated sediment microcosms** *BIODEGRADATION*
  Nyman, J. L., Marsh, T. L., Ginder-Vogel, M. A., Gentile, M., Fendorf, S., Criddle, C.
  2006; 17 (4): 303-316
- **Pilot-scale in situ bioremedation of uranium in a highly contaminated aquifer. 2. Reduction of U(VI) and geochemical control of U(VI) bioavailability** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Wu, W., Carley, J., Gentry, T., Ginder-Vogel, M. A., Fienen, M., Mehlhorn, T., Yan, H., Caroll, S., Pace, M. N., Nyman, J., Luo, J., Gentile, M. E., Fields, et al
  2006; 40 (12): 3986-3995
- **Thermodynamic constraints on the oxidation of biogenic UO2 by Fe(III) (hydr) oxides** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Ginder-Vogel, M., Criddle, C. S., Fendorf, S.
  2006; 40 (11): 3544-3550
- **Biogeochemical processes controlling the speciation and transport of arsenic within iron coated sands** *Annual Conference of the Soil-Science-Society-of-America*
  Herbel, M., Fendorf, S.

ELSEVIER SCIENCE BV.2006: 16–32

- **Introduction: Controls on arsenic transport in near-surface aquatic systems** *CHEMICAL GEOLOGY*
  Ford, R. G., Fendorf, S., Wilkin, R. T.
  2006; 228 (1-3): 1-5
- **Solid-phases and desorption processes of arsenic within Bangladesh sediments** *Annual Conference of the Soil-Science-Society-of-America*
  Polizzotto, M. L., Harvey, C. F., Li, G. C., Badruzzman, B., Ali, A., Newville, M., Sutton, S., Fendorf, S.
  ELSEVIER SCIENCE BV.2006: 97–111
- **Metal(loid) diagenesis in mine-impacted sediments of Lake Coeur d'Alene, Idaho** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Toevs, G. R., Morra, M. J., Polizzotto, M. L., Strawn, D. G., Bostick, B. C., Fendorf, S.
  2006; 40 (8): 2537-2543
- **Arsenic cycling within surface and subsurface environments: Impact of iron mineralogy and bioreduction processes** *Chemical Geology*
  Herbel, M., Fendorf, S.
  2006; 228: 16-32
- **Pilot-scale bioremediation of uranium in a highly contaminated aquifer II: Reduction of U(VI) and geochemical control of U(VI) bioavailability** *Environmental Science & Technology*
  Wu, W., Carley, J., Gentry, T., Ginder-Vogel, M. A., Fienen, M., Mehlhorn, T., Yan, H., Carroll, S., Nyman, J., Luo, J., Gentile, M. E., Fields, M. W., Hickey, et al
  2006; 40: 3986-3995
- **Processes conducive to the release and transport of arsenic into aquifers of Bangladesh** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Polizzotto, M. L., Harvey, C. F., Sutton, S. R., Fendorf, S.
  2005; 102 (52): 18819-18823
- **Chromate reduction and retention processes within arid subsurface environments** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Ginder-Vogel, M., Borch, T., Mayes, M. A., Jardine, P. M., Fendorf, S.
  2005; 39 (20): 7833-7839
- **In situ analysis of thioarsenite complexes in neutral to alkaline arsenic sulphide solutions** *Conference on Environmental Mineralogy, Geochemistry and Human Health*
  Bostick, B. C., Fendorf, S., Brown, G. E.
  MINERALOGICAL SOC.2005: 781–95
- **Adsorption, oxidation, and bioaccessibility of As(III) in soils** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Yang, J. K., Barnett, M. O., Zhuang, J. L., Fendorf, S. E., Jardine, P. M.
  2005; 39 (18): 7102-7110
- **Competing Fe(II)-induced mineralization pathways of ferrihydrite** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Hansel, C. M., Benner, S. G., Fendorf, S.
  2005; 39 (18): 7147-7153
- **Effects of a diel oxygen cycle on nitrogen transformations and greenhouse gas emissions in a eutrophied subtropical stream** *AQUATIC SCIENCES*
  Harrison, J. A., Matson, P. A., Fendorf, S. E.
  2005; 67 (3): 308-315
- **Bioreduction of uranium in a contaminated soil column** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Gu, B. H., Wu, W. M., Ginder-Vogel, M. A., Yan, H., Fields, M. W., Zhou, J., Fendorf, S., Criddle, C. S., Jardine, P. M.
  2005; 39 (13): 4841-4847
- **Uranium hydrogeochemistry of the Hanford caliche layer** *15th Annual V M Goldschmidt Conference*
  Mayes, M. A., Pace, M. N., Fendorf, S. E., Jardine, P. M., Yin, X. L.
  PERGAMON-ELSEVIER SCIENCE LTD.2005: A424–A424
- **Ca-UO2-CO3 complexation - Implications for Bioremediation of U(VI)** *PHYSICA SCRIPTA*
  Kelly, S. D., Kemner, K. M., Brooks, S. C., Fredrickson, J. K., Carroll, S. L., Kennedy, D. W., Zachara, J. M., Plymale, A. E., Fendorf, S.

2005; T115: 915-917

- **Transformation and transport of arsenic within ferric hydroxide coated sands upon dissimilatory reducing bacterial activity** *Symposium on Advances in Arsenic Research held at the 226th ACS National Meeting*
  Herbel, M., Fendorf, S.
  AMER CHEMICAL SOC.2005: 77–90

- **Temporal changes in soil partitioning and bioaccessibility of arsenic, chromium, and lead** *JOURNAL OF ENVIRONMENTAL QUALITY*
  Fendorf, S., La Force, M. J., Li, G. C.
  2004; 33 (6): 2049-2055

- **Chemical structure of arsenic and chromium in CCA-treated wood: Implications of environmental weathering** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Nico, P. S., Fendorf, S. E., Lowney, Y. W., Holm, S. E., Ruby, M. V.
  2004; 38 (19): 5253-5260

- **Structural constraints of ferric (hydr)oxides on dissimilatory iron reduction and the fate of Fe(II)** *Meeting on Microbial Geochemistry held at the 2002 Fall Meeting of the AGU*
  Hansel, C. M., Benner, S. G., Nico, P., Fendorf, S.
  PERGAMON-ELSEVIER SCIENCE LTD.2004: 3217–29

- **Biomineralization of As(V)-hydrous ferric oxyhydroxide in microbial mats of an acid-sulfate-chloride geothermal spring, Yellowstone National Park** *Meeting on Microbial Geochemistry held at the 2002 Fall Meeting of the AGU*
  Inskeep, W. P., Macur, R. E., Harrison, G., Bostick, B. C., Fendorf, S.
  PERGAMON-ELSEVIER SCIENCE LTD.2004: 3141–55

- **Arsenite retention mechanisms within estuarine sediments of Pescadero, CA** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Bostick, B. C., Chen, C., Fendorf, S.
  2004; 38 (12): 3299-3304

- **Chrominium geochemistry of serpentine soils** *INTERNATIONAL GEOLOGY REVIEW*
  Oze, C., Fendorf, S., Bird, D. K., Coleman, R. G.
  2004; 46 (2): 97-126

- **Chromium geochemistry in serpentinized ultramafic rocks and serpentine soils from the Franciscan Complex of California** *AMERICAN JOURNAL OF SCIENCE*
  Oze, C., Fendorf, S., Bird, D. K., Coleman, R. G.
  2004; 304 (1): 67-101

- **Soil chemistry and mineralogy: Kinetics of redox reactions** *Encyclopedia of Soils in the Environment*
  Nico, P. S., Fendorf, S.
  edited by Hillel, D.
  Academic Press.2004

- **Enrichment of Mo in hydrothermal Mn precipitates: possible Mo sources, formation process and phase associations** *CHEMICAL GEOLOGY*
  Kuhn, T., Bostick, B. C., Koschinsky, A., Halbach, P., Fendorf, S.
  2003; 199 (1-2): 29-43

- **Secondary mineralization pathways induced by dissimilatory iron reduction of ferrihydrite under advective flow** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Hansel, C. M., Benner, S. G., Neiss, J., Dohnalkova, A., Kukkadapu, R. K., Fendorf, S.
  2003; 67 (16): 2977-2992

- **Kinetics and structural constraints of chromate reduction by green rusts** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Bond, D. L., Fendorf, S.
  2003; 37 (12): 2750-2757

- **Inhihition of bacterial U(VI) reduction by calcium** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Brooks, S. C., Fredrickson, J. K., Carroll, S. L., Kennedy, D. W., Zachara, J. M., Plymale, A. E., Kelly, S. D., Kemner, K. M., Fendorf, S.
  2003; 37 (9): 1850-1858

- **Arsenite sorption on troilite (FeS) and pyrite (FeS2)** *Topical Symposium on Advances in Oxide and Sulfide Mineral Surface Geochemistry*
  Bostick, B. C., Fendorf, S.
  PERGAMON-ELSEVIER SCIENCE LTD.2003: 909–21
- **Arsenite adsorption on galena (PbS) and sphalerite (ZnS)** *Topical Symposium on Advances in Oxide and Sulfide Mineral Surface Geochemistry*
  Bostick, B. C., Fendorf, S., Manning, B. A.
  PERGAMON-ELSEVIER SCIENCE LTD.2003: 895–907
- **Structural and compositional evolution of Cr/Fe solids after indirect chromate reduction by dissimilatory iron-reducing bacteria** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Hansel, C. M., Wielinga, B. W., Fendorf, S. R.
  2003; 67 (3): 401-412
- **Differential adsorption of molybdate and tetrathiomolybdate on pyrite (FeS2)** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Bostick, B. C., Fendorf, S., Helz, G. R.
  2003; 37 (2): 285-291
- **Effects of contaminant concentration, aging, and soil properties on the bioaccessibility of Cr(III) and Cr(VI) in soil** *SOIL & SEDIMENT CONTAMINATION*
  Stewart, M. A., Jardine, P. M., Brandt, C. C., Barnett, M. O., Fendorf, S. E., McKay, L. D., Mehlhorn, T. L., Paul, K.
  2003; 12 (1): 1-21
- **Arsenite adsorption on galena (PbS) and sphalerite (ZnS)** *Geochimica et Cosmochimica Acta*
  Bostick, B. C., Fendorf, S., Manning, B. A.
  2003; 37: 285-291
- **Arsenic(III) complexation and oxidation reactions on soil** *Symposium on Biogeochemistry of Trace Elements held at 221st National Meeting of the American-Chemical-Society*
  Manning, B. A., Fendorf, S. E., Suarez, D. L.
  AMER CHEMICAL SOC.2003: 57–69
- **Seasonal transformations of manganese in a palustrine emergent wetland** *SOIL SCIENCE SOCIETY OF AMERICA JOURNAL*
  La Force, M. J., Hansel, C. M., Fendorf, S.
  2002; 66 (4): 1377-1389
- **Spatial and temporal association of As and Fe species on aquatic plant roots** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Hansel, C. M., La Force, M. J., Fendorf, S., Sutton, S.
  2002; 36 (9): 1988-1994
- **Reductive dissolution and biomineralization of iron hydroxide under dynamic flow conditions** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Benner, S. G., Hansel, C. M., Wielinga, B. W., Barber, T. M., Fendorf, S.
  2002; 36 (8): 1705-1711
- **Arsenic(III) oxidation and arsenic(V) adsorption reactions on synthetic birnessite** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Manning, B. A., Fendorf, S. E., Bostick, B., Suarez, D. L.
  2002; 36 (5): 976-981
- **Uranyl surface complexes formed on subsurface media from DOE facilities** *SOIL SCIENCE SOCIETY OF AMERICA JOURNAL*
  Bostick, B. C., Fendorf, S., Barnett, M. O., Jardine, P. M., Brooks, S. C.
  2002; 66 (1): 99-108
- **Arsenic (V/III) cycling in soils and natural waters: Chemical and microbiological processes** *Environmental Chemistry of Arsenic*
  Inskeep, , W. P., McDermott, T. R., Fendorf, S. E.
  edited by Frankenberger, Jr., W. T.
  Spinger-Verlag.2002: 183–215
- **Soil Geochemical Processes of Radionuclides** *Soil Sci. Soc. Am. Special Publication*
  Fendorf, S., Wielinga, B. W., Hansel, C. M.
  edited by Zhang, P. C., Brady, P.

Soil Science Society of America.2002

- **Characterization of Fe plaque and associated metals on the roots of mine-waste impacted aquatic plants** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Hansel, C. M., Fendorf, S., Sutton, S., Newville, M.
  2001; 35 (19): 3863-3868
- **Seasonal fluctuations in zinc speciation within a contaminated wetland** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Bostick, B. C., Hansel, C. M., La Force, M. J., Fendorf, S.
  2001; 35 (19): 3823-3829
- **Co(II0I)EDTA(-) reduction by Desulfovibrio vulgaris and propagation of reactions involving dissolved sulfide and polysulfides** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Blessing, T. C., Wielinga, B. W., Morra, M. J., Fendorf, S.
  2001; 35 (8): 1599-1603
- **Iron promoted reduction of chromate by dissimilatory iron-deducing bacteria** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Wielinga, B., Mizuba, M. M., Hansel, C. M., Fendorf, S.
  2001; 35 (3): 522-527
- **Ecosystem dynamics of zinc and manganese within a mine-waste impacted wetland** *Crerar Volume*
  Hansel, C. M., LaForce, M. J., Sutton, S. E., Fendorf, S.
  edited by Wood, S., Hellmann, R.
  Geochemical Society of America.2001
- **Kinetics of arsenate reduction by dissolved sulfide** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Rochette, E. A., Bostick, B. C., Li, G. C., Fendorf, S.
  2000; 34 (22): 4714-4720
- **Multispecies transport of metal-EDTA complexes and chromate through undisturbed columns of weathered fractured saprolite** *JOURNAL OF CONTAMINANT HYDROLOGY*
  Mayes, M. A., Jardine, P. M., Larsen, I. L., Brooks, S. C., Fendorf, S. E.
  2000; 45 (3-4): 243-265
- **Arsenic speciation, seasonal transformations, and co-distribution with iron in a mine waste-influenced palustrine emergent wetland** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  La Force, M. J., Hansel, C. M., Fendorf, S.
  2000; 34 (18): 3937-3943
- **Solid-phase iron characterization during common selective sequential extractions** *SOIL SCIENCE SOCIETY OF AMERICA JOURNAL*
  La Force, M. J., Fendorf, S.
  2000; 64 (5): 1608-1615
- **Chromium transformations in natural environments: The role of biological and abiological. processes in chromium(VI) reduction** *INTERNATIONAL GEOLOGY REVIEW*
  Fendorf, S., Wielinga, B. W., Hansel, C. M.
  2000; 42 (8): 691-701
- **Inhibition of bacterially promoted uranium reduction: Ferric (hydr)oxides as competitive electron acceptors** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Wielinga, B., Bostick, B., Hansel, C. M., Rosenzweig, R. F., Fendorf, S.
  2000; 34 (11): 2190-2195
- **Purification to homogeneity and characterization of a novel Pseudomonas putida chromate reductase** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
  Park, C. H., Keyhan, M., Wielinga, B., Fendorf, S., Matin, A.
  2000; 66 (5): 1788-1795
- **Influence of cadmium sorption on FeS2 oxidation** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Bostick, B. C., Fendorf, S., Bowie, B. T., Griffiths, P. R.
  2000; 34 (8): 1494-1499

- **Constructing simple wetland sampling devices** *SOIL SCIENCE SOCIETY OF AMERICA JOURNAL*
  LaForce, M. J., Hansel, C. M., Fendorf, S.
  2000; 64 (2): 809-811
- **Disulfide disproportionation and CdS formation upon cadmium sorption on FeS2** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Bostick, B. C., Fendorf, S., Fendorf, M.
  2000; 64 (2): 247-255
- **Evidence for microbial Fe(III) reduction in anoxic, mining-impacted lake sediments (Lake Coeur d'Alene, Idaho)** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
  Cummings, D. E., March, A. W., Bostick, B., Spring, S., Caccavo, F., Fendorf, S., Rosenzweig, R. F.
  2000; 66 (1): 154-162
- **Evidence for microbial Fe(III) reduction in anoxic, mining-impacted lake sediments (Lake Coeur d'Alene, USA)** *Applied and Environmental Microbiology*
  Cummings, D. E., March, A. W., Bostick, B. C., Spring, S., Caccavo, F., Jr., S. Fendorf, Rosenzweig, R. F.
  2000; 66: 154-162
- **Pyrolusite surface transformations measured in real-time during the reactive transport of Co(II)EDTA(2-)** *GEOCHIMICA ET COSMOCHIMICA ACTA*
  Fendorf, S., Jardine, P. M., Patterson, R. R., TAYLOR, D. L., Brooks, S. C.
  1999; 63 (19-20): 3049-3057
- **Arsenic sorption in phosphate-amended soils during flooding and subsequent aeration** *SOIL SCIENCE SOCIETY OF AMERICA JOURNAL*
  Reynolds, J. G., Naylor, D. V., Fendorf, S. E.
  1999; 63 (5): 1149-1156
- **Fate and transport of hexavalent chromium in undisturbed heterogeneous soil** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Jardine, P. M., Fendorf, S. E., Mayes, M. A., Larsen, I. L., Brooks, S. C., Bailey, W. B.
  1999; 33 (17): 2939-2944
- **Redistribution of trace elements from contaminated sediments of Lake Coeur d'Alene during oxygenation** *JOURNAL OF ENVIRONMENTAL QUALITY*
  La Force, M. J., Fendorf, S., Li, G. C., Rosenzweig, R. F.
  1999; 28 (4): 1195-1200
- **Arsenic mobilization by the dissimilatory Fe(III)-reducing bacterium Shewanella alga BrY** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Cummings, D. E., Caccavo, F., Fendorf, S., Rosenzweig, R. F.
  1999; 33 (5): 723-729
- **Arsenic mobilization by the dissimilatory Fe(III) reducing bacterium Shewanella alga BrY** *Environmental Science & Technology*
  Cummings, D., Caccavo, F., Fendorf, S., Rosenzweig, R. F.
  1999; 33: 723-729
- **Fundamental aspects and applications of x-ray absorption spectroscopy in clay and soil science** *Applications of synchrotron radiation in clay science*
  Fendorf, S. E.
  edited by Schulze, D. G., Bertsch, P. M.
  Clay Mineral Society, Ottawa, Canada.1999: 31–74
- **Stability of arsenate minerals in soil under biotically generated reducing conditions** *SOIL SCIENCE SOCIETY OF AMERICA JOURNAL*
  Rochette, E. A., Li, G. C., Fendorf, S. E.
  1998; 62 (6): 1530-1537
- **Reaction sequence of Nickel(II) with kaolinite: Mineral dissolution and surface complexation and precipitation** *SOIL SCIENCE SOCIETY OF AMERICA JOURNAL*
  Eick, M. J., Fendorf, S. E.
  1998; 62 (5): 1257-1267
- **Surface structures and stability of arsenic(III) on goethite: Spectroscopic evidence for inner-sphere complexes** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*

Manning, B. A., Fendorf, S. E., Goldberg, S.
1998; 32 (16): 2383-2388

- **Biotic generation of arsenic(III) in metal(loid)-contaminated freshwater lake sediments** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Harrington, J. M., Fendorf, S. E., Rosenzweig, R. F.
  1998; 32 (16): 2425-2430
- **Alteration of arsenic sorption in flooded-dried soils** *SOIL SCIENCE SOCIETY OF AMERICA JOURNAL*
  McGeehan, S. L., Fendorf, S. E., Naylor, D. V.
  1998; 62 (3): 828-833
- **A laboratory evaluation of trace element mobility from flooding and nutrient loading of Coeur d'Alene River sediments** *JOURNAL OF ENVIRONMENTAL QUALITY*
  La Force, M. J., Fendorf, S. E., Li, G. C., Schneider, G. M., Rosenzweig, R. F.
  1998; 27 (2): 318-328
- **Phase associations and mobilization of iron and trace elements in Coeur d'Alene Lake, Idaho** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Harrington, J. M., LaForce, M. J., Rember, W. C., Fendorf, S. E., Rosenzweig, R. F.
  1998; 32 (5): 650-656
- **Phase associations and mobilization of iron and trace metals in sediments of Lake Coeur d'Alene, Idaho** *Environmental Science & Technology*
  Harrington, J. M., Rosenzweig, R. F., Rember, W. C., Fendorf, S. E.
  1998; 32: 650-656
- **Reaction sequence of nickelsorption on kaolinite** *Soil Science Society of America Journal*
  Eick, M. J., Fendorf, S. E.
  1998; 62: 1257-1267
- **Surface structures and stability of arsenic(III) on goethite: Spectroscopic evidence for inner-sphere complexes** *Environmental Science & Technology*
  Manning, B. A., Fendorf, S. E., Goldberg, S.
  1998; 32: 2383-2388
- **Alteration of arsenic sorption in flooded-dried soils** *Soil Science Society of America Journal*
  McGeehan, S. L., Fendorf, S. E., Naylor, D. V.
  1998; 62: 828-833
- **Biotic generation of arsenic(III) in metal contaminated lake sediments** *Environmental Science & Technology*
  Harrington, J. M., Fendorf, S. E., Rosenzwieg, R. F.
  1998; 32: 2425-2430
- **Mobility of trace-element contaminants upon flooding of the Coeur d'Alene River** *Journal of Environmental Quality*
  LaForce, M. J., Fendorf, S. E., Li, G. C., Schneider, M., Rosenzweig, R. F.
  1998; 27: 318-328
- **Stability of arsenate minerals in soils under biotically-generated reducing conditions** *Soil Science Society of America Journal*
  Rochette, E. A., Li, G. C., Fendorf, S. E.
  1998; 62: 1530-1537
- **Kinetics and mechanisms of reactions at the mineral/water interface** *American Chemical Society Special Publication*
  Fendorf, S. E., Jardine, P. M., Taylor, D. L., Brooks, S. C., Rochette, E. A.
  edited by Sparks, D. L., Grundl, T.
  American Chemical Society.1998
- **Reduction of hexavalent chromium by amorphous iron sulfide** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Patterson, R. R., Fendorf, S., Fendorf, M.
  1997; 31 (7): 2039-2044
- **Arsenate and chromate retention mechanisms on goethite .1. Surface structure** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*

Fendorf, S., Eick, M. J., Grossl, P., Sparks, D. L.
1997; 31 (2): 315-320

- **Imaging a pseudomonad in mineral suspensions with scanning force and electron microscopy** *SOIL SCIENCE SOCIETY OF AMERICA JOURNAL*
  Fendorf, S. E., Li, G. C., Morra, M. J., Dandurand, L. M.
  1997; 61 (1): 109-115
- **Sorption mechanisms of lanthanum on oxide minerals** *CLAYS AND CLAY MINERALS*
  Fendorf, S., Fendorf, M.
  1996; 44 (2): 220-227
- **APPLICATIONS OF X-RAY-ABSORPTION FINE-STRUCTURE SPECTROSCOPY TO SOILS** *SOIL SCIENCE SOCIETY OF AMERICA JOURNAL*
  Fendorf, S. E., Sparks, D. L., Lamble, G. M., Kelley, M. J.
  1994; 58 (6): 1583-1595
- **MECHANISMS OF CHROMIUM(III) SORPTION ON SILICA .2. EFFECT OF REACTION CONDITIONS** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Fendorf, S. E., Sparks, D. L.
  1994; 28 (2): 290-297
- **MECHANISMS OF CHROMIUM(III) SORPTION ON SILICA .1. CR(III) SURFACE-STRUCTURE DERIVED BY EXTENDED X-RAY-ABSORPTION FINE-STRUCTURE SPECTROSCOPY** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
  Fendorf, S. E., Lamble, G. M., Stapleton, M. G., Kelley, M. J., Sparks, D. L.
  1994; 28 (2): 284-289
- **Mechanism of aluminum sorption on birnessite: Influences on chromium (III) oxidation** *15th World Congress of Soil Science*
  Fendorf, S. E., Sparks, D. L., Fendorf, M.
  INTERNATIONAL SOCIETY SOIL SCIENCE.1994: 129–130
- **Application of surface spectroscopies and microscopies to elucidate sorption mechanisms on oxide surfaces** *15th World Congress of Soil Science*
  Fendorf, S. E., Sparks, D. L.
  INTERNATIONAL SOCIETY SOIL SCIENCE.1994: 182–199
- **ELECTRON-PARAMAGNETIC RESONANCE STOPPED-FLOW KINETIC-STUDY OF MANGANESE(II) SORPTION DESORPTION ON BIRNESSITE** *SOIL SCIENCE SOCIETY OF AMERICA JOURNAL*
  Fendorf, S. E., Sparks, D. L., Franz, J. A., Camaioni, D. M.
  1993; 57 (1): 57-62
- **INHIBITORY MECHANISMS OF CR(III) OXIDATION BY DELTA-MNO2** *JOURNAL OF COLLOID AND INTERFACE SCIENCE*
  Fendorf, S. E., Fendorf, M., Sparks, D. L., Gronsky, R.
  1992; 153 (1): 37-54