

9 August, 2014

**JOEL E. KOSTKA
CURRICULUM VITAE**

KOSTKA, JOEL E.

**Professor
Schools of Biology and Earth & Atmospheric Sciences
Georgia Institute of Technology**

Personal Data:

Born: 8/8/63, Oak Park, IL

Educational Background:

B.S.	Biology	1985	Western Illinois University
M.S.	Marine Biology	1988	University of Charleston
Ph.D.	Marine Science	1993	University of Delaware

Employment History:

Graduate Research Assistant, University of Delaware	1987-1992
Postdoctoral Fellow, University of Wisconsin	1993-1995
Visiting Scient., Max Planck Inst. for Marine Microbiology	1995-1996
Assistant Professor, Skidaway Institute of Oceanography	1996-1999
Assistant, Associate, Full Professor, Department of Earth, Ocean, and Atmospheric Science, Florida State University	1999-2011
Fellow/ Visiting Scientist, Hanse Institute for Advanced Studies, Max Planck Institute for Marine Microbiology (Bremen), Germany	2006-2007; 2009-2010
Associate Director, Institute of Energy Systems, Economics, and Sustainability (IESES), Florida State University	2008-2011
Professor, School of Biology, Georgia Tech	2011-present
Professor, Earth & Atmospheric Sciences, Georgia Tech	2011-present

Current Fields of Interest:

Environmental Microbiology; Microbial Ecology; Geomicrobiology; Biogeochemistry

Teaching Experience: (last five years, reverse chronological order)

Quarter, year	Course number	Course title	Number of students
Fall, 2013	BIOL 3380	Intro. Microbiology	100
Spring, 2013	BIOL 4410/6410	Microbial Ecology	20
Fall, 2012	BIOL 3380	Intro. Microbiology	100
Fall, 2011	BIOL 3380	Intro. Microbiology	100

Refereed Publications:

Publications at Georgia Tech (2011-present)

33 total: 28 published, 3 in review, and 2 in preparation

Publications all years (1991-2014)

94 total: 89 published, 3 in review, and 2 in preparation

a) Already published

- Canion, W.A. Overholt, J. E. Kostka, M. Huettel, G. Lavik and Marcel M.M. Kuypers. 2014. Temperature response of denitrification and anammox rates and microbial community structure in Arctic fjord sediments. *Environmental Microbiology* (in press).
- Kostka, J.E., A.P. Teske, S. B. Joye and Ian M. Head. 2014. The metabolic pathways and environmental controls of hydrocarbon biodegradation in marine ecosystems. *Frontiers in Microbiology* 5: 471. doi: 10.3389/fmicb.2014.00471
- Joye, S.B, A.P. Teske, and J.E. Kostka. 2014. Microbial Dynamics Following the Macondo Oil Well Blowout across Gulf of Mexico Environments. *BioScience*. 64 (9): 766-777. doi: 10.1093/biosci/biu121
- King, G.M., J.E. Kostka, T. Hazen, and P. Sobczyk. 2014. Microbial Responses to the Deepwater Horizon Oil Spill: From Coastal Wetlands to the Deep Sea. *Annu. Rev. Mar. Sci.* 2015. 7:X–X doi: 10.1146/annurev-marine-010814-015543
- Ruddy B.M., M. Huettel, J.E. Kostka, V.V. Lobodin, B.J. Bythell, A. M. McKenna, C. Aeppli, C.M. Reddy, R. K. Nelson, A. G. Marshall, and R. P. Rodgers. 2014. Targeted Petroleomics: Analytical Investigation of Macondo Well Oil Oxidation Products from Pensacola Beach. *Energy Fuels* 28: 4043-4050.
- P. Jasrotia, S. J. Green, A. Canion, W. A. Overholt, O. Prakash, D. Wafula, D. Hubbard, D. B. Watson, C. W. Schadt, S. C. Brooks and J. E. Kostka. 2014. Watershed scale fungal community characterization along a pH gradient in a subsurface environment co-contaminated with uranium and nitrate. *Applied and Environmental Microbiology* 80: 1810-1820.
- X. Lin, M. M. Tfaily, J. M. Steinweg, P. Chanton, K. Esson, Z. K. Yang, J. P. Chanton, W. Cooper, C. W. Schadt, J. E. Kostka. 2014a. Microbial community stratification linked to utilization of carbohydrates and phosphorus limitation in a boreal peatland at Marcell Experimental Forest, Minnesota, USA. *Applied and Environmental Microbiology* 80: 3518-3530.
- X. Lin, M. M. Tfaily, S. Green, J. M. Steinweg, P. Chanton, A. Invittaya, J. P. Chanton, W. Cooper, C. Schadt, J. E. Kostka. 2014b. Microbial metabolic potential for carbon degradation and nutrient (nitrogen and phosphorus) acquisition in an ombrotrophic peatland. *Applied and Environmental Microbiology* 80: 3531-3540.
- M. M. Tfaily, W. T. Cooper, J. Kostka, P. R. Chanton, C. W. Schadt, P. J. Hanson, C. M. Iversen, and J. P. Chanton. 2014. Organic Matter Transformation in the Peat Column at Marcell Experimental Forest: Humification and Vertical Stratification. *Journal of Geophysical Research: Biogeosciences* (in press).
- A. Canion, J. E. Kostka, T. M. Gihring, M. Huettel, J.E.E. van Beusekom, Hang Gao, G. Lavik, and Marcel M.M. Kuypers. 2014. Temperature response of denitrification and anammox reveals the adaptation of microbial communities to in situ temperatures in permeable marine sediments that span 50o in latitude. *Biogeosciences* 11: 309-320.

- Huettel, M., Berg, P., Kostka, J.E. 2014. Benthic exchange and biogeochemical cycling in permeable sediments. *Annual Review of Marine Science* 6: 23-51.
- R. Venkatramanan, O. Prakash, T. Woyke, P. Chain, L. Goodwin, D. Watson, S. Brooks, J.E. Kostka, and S. Green. 2013. Genome sequences for three denitrifying bacterial strains isolated from a uranium- and nitrate-contaminated subsurface environment. *Genome Announcements* doi: 10.1128/genomeA.00449-13 *Genome Announc.* 1: e00449-13
- W. A. Overholt, S. J. Green, K. P. Marks, R. Venkatramanan, O. Prakash, and J. E. Kostka. 2013. Draft Genome Sequences for Oil-Degrading Bacterial Strains from Beach Sands Impacted by the Deepwater Horizon Oil Spill. *Genome Announcements* doi: 10.1128/genomeA.01015-13 *Genome Announc.* 1: e01015-13.
- Green S., Rishishwar L., Prakash O., Jordan I., Kostka J.E. 2013. Insights into environmental microbial denitrification from integrated metagenomic, cultivation and genomic analyses. In: Nelson K. (Ed.) *Encyclopedia of Metagenomics: SpringerReference* (www.springerreference.com). Springer-Verlag Berlin Heidelberg. DOI: 10.1007/SpringerReference_359242 2013-07-18 17:38:52 UTC
- Salome, K.R., S. J. Green, M. J. Beazley, S. M. Webb, J. E. Kostka, and M. Taillefert. 2013. The role of anaerobic respiration in the immobilization of uranium through biomineralization of phosphate minerals. *Geochimica Cosmochimica Acta* 106: 344-363.
- Canion, A., O. Prakash, S. J. Green, L. Jahnke, M. M. M. Kuypers and J. E. Kostka. 2013. Isolation and physiological characterization of psychrophilic denitrifying bacteria from permanently cold Arctic fjord sediments (Svalbard, Norway). *Environmental Microbiology* 15: 1606-1618.
- Gray, S.M., D. M. Akob, S. Green, and J. E. Kostka. 2012. The bacterial composition within the *Sarracenia purpurea* model system: local scale differences and the relationship with the other members of the food web. *PLoS ONE* 7(12):e50969. doi:10.1371/journal.pone.0050969.
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- Akob, D.M., S. Hyon Lee, M. Sheth, K. Küsel, D. B. Watson, A.V. Palumbo, J. E. Kostka, and K.-J. Chin. 2012. Gene expression correlates with process rates quantified for sulfate- and Fe(III)-reducing bacteria in U(VI)-contaminated sediments. *Frontiers in Microbiology* 3:1-15.
- Lin, X., S. Green, M. M. Tfaily, O. Prakash, K. T. Konstantinidis, J. E. Corbett, J. P. Chanton, W. T. Cooper, and J. E. Kostka. 2012. Microbial community structure and activity linked to contrasting biogeochemical gradients in bog and fen environments of the Glacial Lake Agassiz Peatland. *Appl. Environ. Microbiol.* 78: 7023-7031.
- Kostka, J.E., S. J. Green, L. Rishishwar, O. Prakash, L. S. Katz, L. Mariño-Ramírez, I. K. Jordan, C. Munk, N. Ivanova, N. Mikhailova, D. B. Watson, S. D. Brown, A. V. Palumbo, and S. C. Brooks. 2012. Genome sequences for six *Rhodanobacter* strains, isolated from soils and the terrestrial subsurface, with variable denitrification capabilities. *J. Bacteriol.* 2012, 194: 4461-4462.
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- Prakash, O., S. J. Green, P. Jasrotia, W. A. Overholt, A. Canion, D. B. Watson, S. C. Brooks, and J. E. Kostka. 2012. Description of *Rhodanobacter denitrificans* sp. nov., isolated from nitrate-rich zones of a contaminated aquifer. *Int J Syst Evol Microbiol* 62: 2457-2462.
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- T.A. Vishnivetskaya, C.C. Brandt, A.S. Madden, M.S. Drake, J.E. Kostka, D.M. Akob, K. Kuesel, and A.V. Palumbo. 2010. Microbial Community Changes in Response to Ethanol or Methanol Amendments for U(VI) Reduction. *Applied and Environmental Microbiology* 76: 5728.
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- H. Gao, F. Schreiber, G. Collins, M. M. Jensen, J. E. Kostka, G. Lavik, D. de Beer, H. Zhou, M. M. M. Kuypers. 2010. Aerobic denitrification in permeable Wadden Sea sediments. *The ISME Journal* 4: 417-426.
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- Perry, K.A., J.E. Kostka, G.W. Luther III, and K.H. Nealson. 1993. Mediation of sulfur speciation by a Black Sea facultative anaerobe. *Science* 259:801-803.
- Luther, G.W., J.E. Kostka, T.M. Church, B. Sulzberger, and W. Stumm. 1992. Seasonal Fe cycling in the salt marsh sedimentary environment: the importance of ligand complexes with Fe(II) and Fe(III) in the dissolution of Fe(III) minerals and pyrite, respectively. *Marine Chemistry* 40:81-103.
- Luther, G.W., T.G. Ferdelman, J.E. Kostka, E.J. Tsamakis, and T.M. Church. 1991. Temporal and spatial variability of reduced sulfur species and porewater parameters in salt marsh sediments. *Biogeochemistry* 14:57-88.
- Luther, G.W., T.G. Ferdelman, C.H. Culberson, J.E. Kostka, and J. Wu. 1991. Iodine chemistry in the water column of the Chesapeake Bay: evidence for organic iodine forms. *Est. Coast. Shelf Sci.* 32:267

b) Accepted for publication

b) In review and in preparation

In review:

Brooks, G.R.A, Larson, R., Schwing, P. T.B, Romero, I.B, Moore, C.A, Reichart, G-J.C,D, Jilbert, T.C, Chanton, J.E, Hastings, D.A, Overholt, W.F, Marks, K., Kostka, J.E, Hollander, D.B. 2014. Sedimentation Pulse in the NE Gulf of Mexico Following the 2010 DWH Blowout. Deep Sea Res. Part II.

Rodriguez-R, L. M., W. Overholt, M. Huettel, J.E. Kostka, and K.T. Konstantinidis. 2014. Succession in the indigenous intertidal sand microbial communities of Florida in response to the Deepwater Horizon Oil Spill. ISME Journal

In preparation:

M. Huettel, C. Hagan, J. Kaba, W. Overholt, and J.E. Kostka. 2013. Deposition and microbial degradation of Deepwater Horizon oil in a Florida sandy beach. Science.

C. L. Hemme, S. J. Green, L. Rishishwar, O. Prakash, J. D. Van Nostrand, L. Wu, Z. He, I. King Jordan, J. E. Kostka, Jizhong Zhou. 2013. Lateral Gene Transfer and Gene Duplication Contributes to Overabundance of Geochemical Resistance Genes in Uranium-Contaminated Groundwater. ISME Journal.

Research Grants and Contracts: (Title, Agency, Dates, Amounts)

a) Administered (2011-present)

1) Title: The Response of Soil Carbon Storage and Microbially Mediated Carbon Turnover to Simulated Climatic Disturbance in a Northern Peatland Forest: Revisiting the Concept of Soil Organic Matter Recalcitrance

Agency: U.S. Department of Energy

Dates: 09/01/11-8/31/14

Amount: \$1,049,967

2) Title: Deep-C consortium: deepsea to coast connectivity in the Gulf of Mexico

Agency: Gulf of Mexico Research Initiative, BP

Dates: 01/01/12 – 01/01/15

Amount: \$22,000,000 (\$727,830 to Kostka at Georgia Tech)

3) Title: Microbiology in Support of the Oak Ridge Integrated Field Research Challenge

Agency: U.S. Department of Energy

Dates: 07/16/07 - 2/28/13

Amount: \$18,000,000 (\$1,000,000 to Kostka)

4) Title: Coupling Phycoremediation of Military Wastewater Pollutants and Nutrients to Generation of Environmentally Sustainable Biobased Products

Agency: U.S. Department of the Army

Dates: 03/01/11 – 02/28/14

Amount: \$568,472 (\$111,848 to Kostka at Georgia Tech)

5) Title: RAPID: Rates and mechanisms controlling the microbial degradation of crude oil from the MC252 spill in Gulf of Mexico beach sands

Agency: NSF

Dates: 06/15/10 – 5/31/12
Amount: \$169,653

6) Title: Penetration, accumulation and degradation of BP DWH oil in Florida sandy beaches
Agency: Florida Institute of Oceanography
Dates: 08/13/10 – 08/12/12
Amount: \$232,556

7) Title: Deepwater Horizon oil deposition in Gulf of Mexico beaches Phase 2
Agency: NOAA-NGI
Dates: 01/01/11-02/29/12
Amount: \$99,741

8) Title: Emergent Effects Of Deep Cleaning In Gulf Coast Beaches
Sponsor: Gulf of Mexico Research Initiative, BP
Dates: 07/01/11 – 11/30/11
Amount: \$69,171

b) Submitted

Title: Toward a predictive understanding of the response of belowground microbially-mediated carbon turnover to climate change drivers in a boreal peatland
Agency: U.S. Department of Energy
Dates: 01/01/2014-12/31/2016
Amount: \$1,050,000

Meetings and Symposia (Last 5 years):

Invited:

Kostka, J.E. 2008. "Identification and quantification of metal-reducing bacteria that catalyze redox reactions in radionuclide-contaminated subsurface soils." Workshop: Clay Surface Redox Processes: Fundamentals and Characterization Techniques, 45th Annual Meeting of the Clay Minerals Society, April.

Kostka, J.E. 2008. Structure and Function of Subsurface Microbial Communities Affecting Radionuclide Transport and Bioimmobilization. ERSP Principal Investigator Meeting, Landsdowne, VA, April.

Kostka, J.E. 2008. "Role of saltmarshes in healthy ecosystems", Florida's Centers for Ocean Sciences Education Excellence-Central Gulf of Mexico Summer Institute in Ocean Science, Cedar Key, FL, June.

Kostka, J.E. 2008. "Quantification of metabolically active prokaryotes in the shallow subsurface," 108th American Society for Microbiology General Meeting, Boston, MA, June.

Kostka, J.E. 2008. "Cold War Biogeochemistry: Nuclear Legacy Waste in the Subsurface of U.S. DOE Sites," FAMU-FSU College of Chemical & Biomedical Engineering, Tallahassee, February.

Kostka, J.E. 2008. "Microbially-mediated removal of nitrogen from marine ecosystems: new

- pathways and their dependence on temperature.” Department of Biology, Georgia State University, Atlanta, GA, April.
- Kostka, J.E. 2008. “Cold War Microbiology: Bioremediation of Nuclear Legacy Waste in the Subsurface of U.S. DOE Sites,” Department of Microbiology and Cell Science, University of Florida, Gainesville, FL, April.
- Kostka, J.E. 2008. Microbes that breathe nitrogen in marine sediments from the subtropics to polar ecosystems. Geology Department Colloquium, Florida State University, November.
- Kostka, J.E. 2008. Nitrogen removal from ecosystems: new pathways and the microbes that drive them. Biology Department Colloquium, Florida State University, November.
- Kostka, J.E., 2008. “Microbial Ecology of Fe(III)-reducing Bacteria,” Telluride Workshop: Biogeochemical Processes of the Iron Cycle: From Microbes to Mineral Surfaces, Telluride, CO, July.
- Kostka, J.E. 2009. Nitrogen Removal from Permeable Marine Sediments: New Pathways and the Microbes that Drive Them, Final Symposium on the Biogeochemistry of Tidal Flats, Hanse-Wissenschaftskolleg, Delmenhorst, May.
- Kostka, J.E. 2009. The Nitrogen Problem: How Microbes as the Kidney’s of Earth’s Estuaries. Fellows presentation, Hanse-Wissenschaftskolleg, Delmenhorst, May.
- Kostka, J.E. 2009. Quantification of prokaryotic gene expression in shallow marine subsurface sediments of Aarhus Bay, Denmark. International Symposium on the Microbiology of Oil Field Systems, Aarhus, Denmark, June.
- Kostka, J.E. 2009. Keynote presentation: Ecology of Fe(III)-reducing bacteria that catalyze critical geobiological processes in sedimentary ecosystems. Goldschmidt Conference, Davos Switzerland, June.
- Kostka, J.E., S. Green, W. Overholt, W.-M. Wu, C. Criddle, D. B. Watson, and P. Jardine. 2009. Subsurface microbial community structure correlates with uranium redox phases during in situ field manipulation in a contaminated aquifer. Goldschmidt Conference, Davos Switzerland, June.
- Kostka, J.E. 2009. Ecology of Iron Microbes that Catalyze Critical Geobiological Processes in Sedimentary Ecosystems, Graduate Research School, "Alteration and element mobility at the microbe-mineral interface" financially supported by the German Research Foundation DFG (1257), November.
- Kostka, J.E. 2009. Digging in the Dirt: Field Methods in Geomicrobiology, Graduate research school "Alteration and element mobility at the microbe-mineral interface" financially supported by the German Research Foundation DFG (1257), November.
- Kostka, J.E. 2009. Extreme Geomicrobiology: Ecology of Prokaryotes that Catalyze Critical Geobiological Processes in the Subsurface, Helmholtz Institute for Environmental Research, Leipzig, Germany, November.
- Kostka, J.E. 2009. The nitrogen problem and biocatalytical filtration on the seafloor in coastal ecosystems. Institute for Fisheries and Aquatic Sciences, University of Florida, January.
- Kostka, J.E. 2009. The Benthic Nitrogen Cycle and Psychrophilic Denitrifying Bacteria in Arctic Fjords (Svalbard, Norway). Max Planck Institute for Marine Microbiology, Bremen, May.
- Kostka, J.E. 2009. The Benthic Nitrogen Cycle and Psychrophilic Denitrifying Bacteria in Arctic Fjords (Svalbard, Norway). University of Southern Denmark, Odense, June.
- Kostka, J.E. 2010. Extreme Denitrification: Sedimentary Microorganisms that Breathe Nitrogen from the Acidic Subsurface to the Permanently Cold Arctic. Georgia Institute of Technology, Atlanta, Georgia, January.

- Kostka, J.E.. 2010. Ecosystem functional genomics: inferring environmental forcing of community structure and function, Institute for Computing in Science Workshop: Computational Methods and Terabase Genomics, Sponsored by Argonne National Lab and U.S. DOE, Snowbird, July.
- Kostka, J.E., M. Huettel, S. Green. 2010. Ecology of Hydrocarbon Degradation in Gulf Beach Sands. International Society for Microbial Ecology, Seattle, August.
- Kostka, J.E., and M. Huettel. 2011. Ecology of hydrocarbon-degrading bacteria in Gulf of Mexico beach sands impacted by the Deepwater Horizon oil spill. Annual Meeting of the Society for Industrial Microbiology, New Orleans, LA, May.
- Kostka, J.E., M. Huettel, and D. Hastings. 2011. Penetration, accumulation and degradation of BP DH oil in Florida sandy beaches. Florida Institute of Oceanography Principal Investigators Meeting, Orlando, May.
- Kostka, J.E., and M. Huettel. 2011. The impacts of Macondo oil in Gulf Beaches. Florida Association For Water Quality Control Annual Meeting, Sarasota, June.
- Kostka, J., M. Huettel, O. Prakash, S. Green, J. Kaba, C. Hagan, B. Wells., W.A. Overholt, A. Canion, and N. Norton. 2012. The fate of Deepwater Horizon oil in Florida sandy beaches: can oil-eating microbes help to clean up the mess? AGU/ ASLO Ocean Sciences Meeting, Salt Lake City, February.
- Kostka, J.E. 2012. "Science on Tap" Lecture, Georgia Aquarium, Atlanta, June
- Kostka, J.E. 2012. Plenary talk: The BP Oil Spill and Biological Effects in the Gulf of Mexico School of Biology Scientific Retreat, Ga Tech, August.
- Kostka, J.E. 2012. Plenary talk. The BP Oil Spill in the Gulf of Mexico: Are Microbes Helping to Clean up the Mess? 59th Annual American Vacuum Society International Symposium, Tampa, October.
- Kostka, J.E. 2012. Microbial carbon cycle in boreal peatlands. Friedrich Schiller University, Jena, Germany, December.
- J.E. Kostka. 2013. Controls of the microbial nitrogen cycle in marine sediments and implications for global climate change. American Chemical Society 245th National Meeting & Exposition, New Orleans, April.
- Kostka J.E., X. Lin, M. M. Tfaily, P. R. Chanton, K. Esson, J. M. Steinweg, J. P. Chanton, W. T. Cooper, C. W. Schadt. 2013. Toward a predictive understanding of microbial carbon turnover in a northern peatland. Terrestrial Ecosystem Science/ Subsurface Biogeochemical Research Principal Investigators Meeting, U.S. Department of Energy, Washington, DC, May.
- Kostka, J.E., X. Lin, M.M. Tfaily, P. Chanton, K. Esson, J.M. Steinweg, J.P. Chanton, W. Cooper, C. Schadt. 2013. Towards a predictive understanding of microbial carbon turnover in a northern peatland. Annual Meeting of the Society of Wetland Scientists, Duluth, June.
- Kostka, J.E., M. Huettel, J.P. Chanton, and D. Hollander. 2013. The Response of Gulf Sedimentary Microbial Communities to the Deposition of Deepwater Horizon Oil Hydrocarbons, 2nd International Symposium on Bioremediation and Sustainable Environmental Technologies, Jacksonville, June.
- Kostka, J.E., M. Huettel, and K. Konstantinidis. 2013. Metagenomic Insights into the Response of Indigenous Microbial Communities in Beach Sands to the Deepwater Horizon Oil Spill. Goldschmidt International Geochemistry Conference, Florence, Italy, August.
- Kostka, J.E. 2013. Keynote presentation: The effects of MOSSFA on pelagic and benthic organisms. Marine Oil Snow Sedimentation and Flocculent Accumulation Working Group Meeting, Gulf of Mexico Research Initiative, Tallahassee, October.

- Kostka, J.E. 2014. “It isn’t over until it’s over”: fostering public understanding of the potential longterm effects of the Deepwater Horizon spill to ecosystem health.” 2014 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, January.
- Kostka, J.E., W.A. Overholt, L.M. Rodriguez-R., K. Marks, J.C. Gaby, C. Hagan, J. Kaba, K. Konstantinidis, and M. Huettel. 2014. Hydrocarbon-degrading microbial communities and the fate of oil in beach sands impacted by the Deepwater Horizon oil spill. 2014 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, January.
- Kostka, J.E. 2014. Integrating metagenomic and NMR spectroscopic approaches to develop indices of organic carbon lability for incorporation into climate models of boreal wetlands. American Chemical Society 247th National Meeting & Exposition, Dallas, March.
- Kostka, J.E. 2014. Tutorial Presentation, Biogeo-omics: utilizing biogeochemistry and -omics data to determine the fate and impacts of oil from the Deepwater Horizon spill in Gulf of Mexico ecosystems. AGU/ASLO Ocean Sciences Meeting, Honolulu, February.

Contributed:

- Kostka, J.E., T. Gihring, G. Lavik, and M. Kuypers. 2008. Quantification of nitrogen removal from Arctic marine sediments and temperature regulation of microbial communities that mediate denitrification and anammox. AGU/ ASLO Ocean Sciences Meeting, Orlando, FL, March.
- T. M. Gihring, J. E. Kostka, H. Mills, H. Gao, G. Collins, S. M. Liu, G. Lavik, J. van Beusekom, and M. Kuypers. 2008. Quantification of nitrogen removal and temperature regulation of microbial communities that mediate denitrification and anammox in permeable marine sediments. AGU/ ASLO Ocean Sciences Meeting, Orlando, FL, March.
- M. Humphrys, T. Gihring, J. Delgardio, H. Mills, and J. E. Kostka. 2008. Stable isotope probing of microbial community dynamics associated with phytodetritus degradation in marine permeable sediments. AGU/ ASLO Ocean Sciences Meeting, Orlando, FL, March.
- H. J. Mills, M. Humphrys, D. Akob, T. Gihring, J. Delgardio, K.-J. Chin, J. E. Kostka. 2008. Quantification of functional gene expression of Fe(III) and sulfate reducing prokaryotes in salt marsh sediments. AGU/ ASLO Ocean Sciences Meeting, Orlando, FL, March.
- H. Gao, G. Collins, J. Kostka, S. M. Liu, L. Poleresky, F. Schreiber, G. Lavik, D. de Beer and M. M.M. Kuypers. 2008. Extensive nitrogen loss from permeable intertidal Wadden Sea sediments. AGU/ ASLO Ocean Sciences Meeting, Orlando, FL, March.
- E.M. Burkhardt, Akob, D., Kostka, J., Sitte, J., Küsel, K. 2008. Fe(III) reducing microbial communities and their influence on metal mobility. Remediation Symposium, Jena, Germany, March.
- Ewald, E.M., Akob, D., Kostka, J., Sitte, J., Küsel, K. 2008. Effect of iron- and sulfate-reduction on heavy metal retention in soils from a former uranium mining district. VAAM/GBM Annual Conference, Frankfurt, Germany, March.
- Jardine, P.M., D.B. Watson, G. Baker, C.C. Brandt, S.C. Brooks, C.S. Criddle, C.T. Gaten, B. Gu, J. Horita, S.S. Hubbard, S.Kelly, K. Kemner, P.K. Kitanidis, J. Kostka, J. Luo, A.V. Palumbo, J.C. Parker, T.J. Phelps, C.W. Schadt, B. P. Spalding, W.-M. Wu, F. Zhang, and J. Zhou. 2008. Exploring uranium fate and transport in contaminated subsurface environments: technology transfer opportunities for uranium mine restoration. Presentation at Canadian Uranium Symposium: Fueling the Nuclear Renaissance. Vancouver, Canada. April.
- Wu, W-M., J. Carley, J. Van Nostrand, S. D. Kelly, P. Waldron, G. Zhang, E. Cardenas, S. Carroll, J. Luo, L. Wu, T. Mehlhorn, , K. M. Kemner, C. Schadt, J. Zhou, P. Kitanidis, T. L.

- Marsh, J. Tiedje, J. Kostka, L. Kerkhof, D. Watson, C. S. Criddle, P. M. Jardine. 2008. Reoxidation of bioreduced uranium by dissolved oxygen and nitrate and restoration of reduced conditions at Area 3, IFC site, Oak Ridge, Third DOE-ERSP PI Meeting, Lansdowne, VA, April.
- Gu, B., W-M. Wu, W. Luo, C. Schadt, G. Zhang, S. Brooks, S. D. Kelly, K. M. Kemner, F. Zhang, J. Parker, A. Palumbo, J. Zhou, J. Kostka, C. S. Criddle, D. Watson, and P. M. Jardine. 2008. Subsurface pH and oleate manipulation for the immobilization of uranium. Third DOE-ERSP PI Meeting, Lansdowne, VA, April.
- P. M. Jardine, D. B. Watson, G. Baker, C.C. Brandt, S.C. Brooks, C.S. Criddle, C.T. Gaten, B. Gu, J. Horita, S.S. Hubbard, S. Kelly, K. Kemner, P. K. Kitanidis, J. Kostka, J. Luo, A.V. Palumbo, J.C. Parker, T.J. Phelps, C.W. Schadt, B.P. Spalding, W.N. Wu, F. Zhang, and J. Zhou. 2008. Oak Ridge IFC Research Highlights and Future Directions at the Oak Ridge Integrated Field Research Challenge. Third Annual DOE-ERSP PI Meeting, Lansdowne, VA, April.
- D. Watson, J. Van Nostrand, P. Waldron, S. Carroll, T. Mehlhorn, C. Schadt, J. Zhou, J. Kostka, B. Spalding, J. Horita, K. Lowe, K. Hyder, M. Mueller, M. Bogle, S. Green, C. Garten, T. Yan, T. Gentry, G. Zhang, and P. Jardine. 2008. Oak Ridge IFC Natural attenuation and recharge studies. Third Annual DOE-ERSP PI Meeting, Lansdowne, VA, April.
- D.M. Akob, K. Chin, L. Kerkhof, K. Kuesel, D.B. Watson, A.V. Palumbo, and J.E. Kostka. 2008. Targeting the metabolically active iron(III)- and sulfate-reducing bacteria with a high potential for U(VI) bioimmobilization in contaminated subsurface sediments. Third Annual DOE-ERSP PI Meeting, Lansdowne, VA, April.
- Kostka, J.E., T.M. Gihring, G. Lavik, and M. Kuypers. Quantification of nitrogen removal from Arctic marine sediments and temperature regulation of microbial communities that mediate denitrification and anammox. Advancing Methods for Measuring Denitrification in Terrestrial and Aquatic Systems, 2008 Meeting of the NSF Denitrification Research Coordination Network, May.
- Zhang, G., W-M. Wu, C. Criddle, P. Jardine, D. Watson, S. Brooks, A. Palumbo, J. Kostka, S. Kelly, K. Kemner and C. Schadt. 2008. Microbial community responses to Ca-oleate as an electron donor for biostimulation of U(VI) reduction. American Society for Microbiology 108th General Meeting, Boston, MA. June 1-5, 2008.
- J. E. Kostka, T. Gihring, H. Mills, G. Lavik, H. Gao, J. van Beusekom, and M. Kuypers. Nitrogen loss and temperature regulation of microbial communities that mediate denitrification and anammox in permeable marine sediments across a 50o latitudinal gradient. 108th American Society for Microbiology General Meeting, Boston, MA, June.
- D. M. Akob, L. Kerkhof, K.-J. Chin and J. E. Kostka. 2008. Characterization of the Metabolically Active Iron(III)- and Sulfate-Reducing Bacteria in Uranium(VI) Contaminated Subsurface Sediments Using DNA-SIP Analysis. 108th American Society for Microbiology General Meeting, Boston, MA, June.
- S. Lee, D. M. Akob, J. E. Kostka, K-J. Chin. Quantification of Functional Gene Expression of Sulfate- and Iron(III)-Reducing Bacteria and Phylogenetic Analysis of Metabolically Active Bacteria in Uranium(VI)-Contaminated Subsurface Sediments. 108th American Society for Microbiology General Meeting, Boston, MA, June.
- E. Ewald, D. Akob, J. Kostka, J. Sitte, and Kirsten Küsel. 2008. Effect of Iron Reduction on Heavy Metal Mobilisation. 108th American Society for Microbiology General Meeting, Boston, MA, June.
- W-M. Wu, J. Carley, J. Van Nostrand, S. Kelly, G. Zhang, P. Waldron, E. Cardenas, L. Wu, S. Carroll, T. Mehlhorn, C. Schadt, J. Luo, K. Kemner, P. Kitanidis, T. Marsh, J. Tiedje, L.

- Kerkhof, J. Kostka, J. Zhou, D. Watson, P. Jardine, C. Criddle. 2008. Field Tests on Reoxidation of Bioreduced Uranium by Dissolved Oxygen and Nitrate and Restoration of Reduced Conditions. 108th American Society for Microbiology General Meeting, Boston, MA, June.
- G. Zhang, W-M. Wu, C. Criddle, P. Jardine, D. Watson, S. Brooks, A. Palumbo, J. Kostka, C. W. Schadt. 2008. Microbial Community Responses to Ca-Oleate as an Electron Donor for Biostimulation of U(VI) Reduction. 108th American Society for Microbiology General Meeting, Boston, MA, June.
- Cooper, W.T., Andrilli, J., Padgorski, D., Dittmar, T., Huettel, M., Kostka, J. E., Chipman, L. (2008). Ultrahigh Resolution Mass Spectrometry Of Dissolved Organic Matter In Estuaries. Ocean Carbon and Biogeochemistry (OCB) program: Ocean Carbon and Biogeochemistry Scoping Workshop on Terrestrial and Coastal Carbon Fluxes in the Gulf of Mexico, USGS Normile Conference Center, St Petersburg, FL, May 6-8, 2008
- Chipman, L., Cooper, W.T., Dittmar, T., Kostka, J.E., Huettel, M.. (2008). Degradation of Dissolved Organic Matter in Percolated Permeable Shelf Sands. Ocean Carbon and Biogeochemistry (OCB) program: Ocean Carbon and Biogeochemistry Scoping Workshop on Terrestrial and Coastal Carbon Fluxes in the Gulf of Mexico, USGS Normile Conference Center, St Petersburg, FL, May 6-8, 2008.
- J.E. Kostka, T. Gihring, G. Lavik, and M.M.M. Kuypers. 2009. Direct determination of nitrogen cycling rates and pathways in Arctic fjord sediments (Svalbard, Norway). Unknowns, knowns, and unknown knowns: Chemical Oceanography in a Changing World, February.
- J.E. Kostka. 2009. Microbial Community Response Parallels Uranium Immobilization and Remobilization during In Situ Field Manipulation. Fourth Annual DOE-ERSP Principal Investigator Meeting, Landsdowne, VA, April.
- S. J. Green, W. A. Overholt, W. Wu, D. Watson, P. Jardine, T. Mehlhorn, K. Lowe, J. Carley, S. Carroll, G. Zhang, C. Schadt, C. Criddle, J. D. Van Nostrand, J. Zhou, and J. E. Kostka. 2009. Distinctive shifts in subsurface microbial community structure correlate with uranium redox phases during in situ field manipulation at the Oak Ridge Integrated Field Research Challenge (OR-IFRC). Fourth Annual DOE-ERSP Principal Investigator Meeting, Landsdowne, VA, April.
- P. Jasrotia, S. J. Green, D. Akob, W. J. Sul, J. M. Tiedje, P. M. Jardine, D. B. Watson, and J. E. Kostka. 2009. Profiling of microbial community structure across physico-chemical gradients using deep sequencing in the uranium-contaminated subsurface. Fourth Annual DOE-ERSP Principal Investigator Meeting, Landsdowne, VA, April.
- W. A. Overholt, S. J. Green, W. Wu, D. Watson, P. Jardine, T. Mehlhorn, K. Lowe, J. Carley, S. Carroll, G. Zhang, C. Schadt, C. Criddle and J. E. Kostka. 2009. Tracking long-term shifts in microbial community structure in an experimentally-manipulated subsurface environment exposed to high levels of radionuclides and nitrate. 109th American Society for Microbiology General Meeting, Philadelphia, PA, May.
- O. Prakash, S. J. Green, T. M. Gihring, P. Jardine, D. Watson and J. E. Kostka. 2009. Denitrification activity and novel denitrifying bacteria isolated from a terrestrial aquifer exposed to mixed contamination. 109th American Society for Microbiology General Meeting, Philadelphia, PA, May.
- S. J. Green, D. M. Akob, W. J. Sul, J. Tiedje, and J. E. Kostka. 2009. Combined Geochemical and Pyrosequencing Community Analysis of a Uranium-contaminated Subsurface Sediment Profile. 109th American Society for Microbiology General Meeting, Philadelphia, PA, May.
- W-M. Wu, G. Zhang, S. D. Kelly, F. Zhang, T. Mehlhorn, S. Green, K. M. Kemner, S. Brooks, J. Kostka, C. S. Criddle, C. Schadt, D. Watson, P. M. Jardine. 2009. Reduction of Uranium (VI)

- in Sediments with Complex Organic Electron Donors. 109th American Society for Microbiology General Meeting, Philadelphia, PA, May.
- E.-M. Burkhardt, D.M. Akob, S. Bischoff, J. E. Kostka, and K. Küsel. 2009. Metal Mobilization by Fe(III)-reducing Microbial Communities in Contaminated Creek Soils. VAAM/GBM Annual Conference, Bochum, Germany, March.
- J. Sitte, D. Akob, C. Kaufmann, K. Pollok, K. Finster, J. Kostka, F. Langenhorst, and K. Küsel. 2009. Activity and Identification of Sulfate Reducing Prokaryotes in Heavy Metal and Radionuclide Contaminated Creek Soil. VAAM/GBM Annual Conference, Bochum, Germany, March.
- E.-M. Burkhardt, S. Bischoff, D. M. Akob, J. E. Kostka, and K. Küsel. 2009. Metal mobility changes during microbial redox processes in contaminated creek soils. Goldschmidt Conference, Davos Switzerland, June.
- D.M. Akob, E.-M. Burkhardt, D.M. Akob, J. Sitte, L. Kerkhof, K. Kuesel, D.B. Watson, A.V. Palumbo, and J.E. Kostka. 2009. Identification of active microbial communities linked to bioremediation and natural attenuation of radionuclides and heavy metals in contaminated aquifers. Goldschmidt Conference, Davos Switzerland, June.
- Gihring, T., Schadt, C.W., Zhang, G., Yang, Z., Carroll, S., Lowe, K., Mehlhorn, T.L., Jardine, P.M., Watson, D.B., Brooks, S.C., Wu, W., Kostka, J.E., Green, S.J. 2010. Changes in microbial community structure during amendment with long-term electron donor sources for bioreduction of groundwater contaminants. Department of Energy Environmental Remediation Sciences Program 5th Annual PI Meeting. Washington, D.C.
- Gihring, T., Schadt, C.W., Zhang, G., Yang, Z., Carroll, S., Lowe, K., Mehlhorn, T.L., Jardine, P.M., Watson, D.B., Brooks, S.C., Wu, W., Kostka, J.E., Overholt, W.A., Green, S.J., Zhou, J., Zhang, P., Von Nostrand, J. 2010. Changes in microbial community structure and activity during amendment with long-term electron donor sources for bioreduction of groundwater contaminants. Goldschmidt 2010. Knoxville, TN.
- Green, S.J., Jasrotia, P., Hubbard, D., Overholt, W.A., Prakash, O., Gihring, T.M., Akob, D.M., Jardine, P.M., Watson, D.B., Brown, S.D., Palumbo, A.V., Sul, W.J., Tiedje, J., Kostka, J.E. 2010. Current molecular methods that target denitrification genes do not detect key denitrifying taxa. International Society for Microbial Ecology Symposium 2010. Seattle, WA.
- Green, S.J., Jasrotia, P., Hubbard, D., Prakash, O., Kostka, J.E., Gihring, T., Schadt, C.W., Watson, D.B., Jardine, P.M., Brooks, S. 2010. Characterization of denitrifying microbial communities in the subsurface co-contaminated with uranium- and nitrate from the molecular to the watershed scales. Department of Energy Environmental Remediation Sciences Program 5th Annual PI Meeting. Washington, D.C.
- Jasrotia, P., Prakash, O., Canion, A.K., Green, S.J., Kostka, J.E. 2010. Isolation and characterization of acid tolerant denitrifying bacteria and fungi from the terrestrial subsurface. Department of Energy Environmental Remediation Sciences Program 5th Annual PI Meeting. Washington, D.C.
- Jasrotia, P., Prakash, O., Canion, A.K., Green, S.J., Kostka, J.E. 2010. Isolation and characterization of acid tolerant denitrifying fungi and bacteria from the terrestrial subsurface. American Society for Microbiology Annual Meeting, 2010. San Diego, CA.
- Jasrotia, P., S. J. Green, W. Overholt, D. Hubbard, and J. E. Kostka. 2010. Probing the denitrifying microbial community in uranium-contaminated subsurface environments with multi-faceted molecular- and cultivation-based approaches. Graduate Student Symposium, Earth Ocean & Atmospheric Science Department, Florida State University, November.

- Kostka, J.E., Prakash, O., Green, S.J., Jasrotia, P., Kerkhof, L., Chin, K.-J., Keller, M., Venkateswaran, A., Elkins, J.G., Stucki, J.W., Brown, S.D., Palumbo, A.V. 2010. Structure and Function of Subsurface Microbial Communities Affecting Radionuclide Transport and Bioimmobilization. Department of Energy Environmental Remediation Sciences Program 5th Annual PI Meeting. Washington, D.C.
- Kostka, J.E., S.J. Green, O. Prakash, P. Jasrotia, A. Canion, W. Overholt, J. Delgardio. Microbially-catalyzed nitrate attenuation and microbial community structure across the ORIFRC watershed, All Hands Meeting, Oak Ridge National Lab, September, 2010.
- Kostka, J.E. Future of the IFRC: Taxon-specific biogeochemistry of complex interfaces that limit the fate of contaminants and key nutritive elements, All Hands Meeting, Oak Ridge National Lab, September, 2010.
- Overholt, W.A., Green, S.J., Prakash, O., Gihring, T., Akob, D.M., Jasrotia, P., Jardine, P.M., Watson, D.B., Brown, S.D., Palumbo, A.V., Sul, W.J., Tiedje, J., Kostka, J.E. 2010. Denitrifying bacteria from the genus *Rhodanobacter* are key members of acidic and uranium-contaminated subsurface environments from Oak Ridge, TN. American Society for Microbiology Annual Meeting, 2010. San Diego, CA.
- Salome, K.R., Beazley, M.J., Green, S.J., Martinez, R.J., Kostka, J.E., Sobecky, P.A., Taillefert, M. 2010. Competition Between U(VI) Bioreduction and Biomineralization in a Contaminated Sediment. Department of Energy Environmental Remediation Sciences Program 5th Annual PI Meeting. Washington, D.C.
- Zhang, P., W. Wu, J. D. Van Nostrand, Y. Deng, Z. He, T. Gihring, G. Zhang, C. W. Schadt, D. Watson, P. Jardine, S. Brooks, T. L. Marsh, J. M. Tiedje, T. C. Hazen, and J. Zhou. 2010. Microarray-Based Characterization of Microbial Community Functional Structure During in Situ Biostimulation at a Uranium-Contaminated Aquifer. International Symposium on Microbial Ecology, 22-27 Aug., Seattle, WA.
- Kostka, J.E., O. Prakash, S. J. Green, P. Jasrotia, A. Kanak, M. Patel, and K.-J. Chin. 2011. Structure and function of subsurface microbial communities affecting radionuclide transport and bioimmobilization. Subsurface Biogeochemical Research Principal Investigators Meeting, U.S. Department of Energy, Washington, DC, April.
- Kostka, J.E., S. J. Green, O. Prakash, P. Jasrotia, W. A. Overholt, T. M. Gihring, D. B. Watson, C. Schadt, J. Horita, and S. Brooks. 2011. Microbial community structure and microbially-catalyzed nitrate attenuation across the OR-IFRC watershed. Subsurface Biogeochemical Research Principal Investigators Meeting, U.S. Department of Energy, Washington, DC, April.
- Jasrotia, P., W. A. Overholt, S. J. Green, C. W. Schadt, D. B. Watson, S. Brooks, and J. E. Kostka. 2011. The potential role of subsurface fungal communities in contaminant transformation at U.S. DOE sites. Subsurface Biogeochemical Research Principal Investigators Meeting, U.S. Department of Energy, Washington, DC, April.
- Brook, S.C., D.B. Watson, G.S. Baker, M. Boyanov, C.C. Brandt, C.S. Criddle, B. Gu, S.S. Hubbard, K. Kemner, J.E. Kostka, J.C. Parker, C.W. Schadt, W.-M. Wu, T. Zimmerman, F. Zhang, and J. Zhou. 2011. Multiscale Investigations on the Rates and Mechanisms of Targeted Immobilization and Natural Attenuation of Radionuclides and Co-Contaminants in the Subsurface. Subsurface Biogeochemical Research Principal Investigators Meeting, U.S. Department of Energy, Washington, DC, April.
- Green, S.J., Jasrotia, P., Overholt, W.A., Prakash, O., Gihring, T.M., Jardine, P.M., Watson, D.B., Brown, S.D., Palumbo, A.V., Schadt, C., Brooks, S., Sul, W.-J., Tiedje, J., Reed, J. and Kostka, J.E. 2011. Why are *Rhodanobacter* spp. so dominant in a uranium-contaminated subsurface

- environment? American Society for Microbiology Annual Meeting, 2011. New Orleans, LA, May.
- Hu, P., Wu, C.H., DeSantis, T., Jasrotia, P., Woo, H., Kearcher, K., Meiss, S., Torok, T., Taylor, L.D., Overholt, W.A., Green, S.J., Andersen, G.L., Kostka, J.E., and Hazen, T.C. 2011. Validation of MycoChip – A Microarray for Fungal Community Studies. American Society for Microbiology Annual Meeting, 2011. New Orleans, LA, May.
- Jasrotia, P., Overholt, W.A., Green, S.J., Schadt, C.W., Watson, D.B., Brooks, S., and Kostka, J.E. 2011. Watershed scale fungal community characterization along a pH gradient in an aquifer co-contaminated with uranium and nitrate. American Society for Microbiology Annual Meeting, 2011. New Orleans, LA, May.
- Schadt, C.W., T. M. Gihring, M. Kerley, S. C. Carroll, S. C Brooks, Catherine Doktycz, Joel E. Kostka . New species of *Geobacter*, *Desulfuregula*, and *Desulfovibrio* isolated from a low diversity consortium within a contaminated aquifer undergoing in situ U(VI) reduction. American Society for Microbiology Annual Meeting, 2011. New Orleans, LA, May.
- W. Wu, D. Watson, G. Zhang, T. Gihring, C. Schadt, T. Mehlhorn, F. Zhang, S. D. Kelly, M. Boyanov, K. M. Kemner, J. D. Van Nostrand, P. Zhang, J. Zhou, W. A. Overholt, S.J. Green, J. E. Kostka, C. S. Criddle, P. M. Jardine, S. C. Brooks. U(VI) reduction in contaminated sediments with oleate, emulsified vegetable oil and ethanol as electron donor. American Society for Microbiology Annual Meeting, 2011. New Orleans, LA, May.
- Horita, J., M. E. Conrad, N. Yoshida, J. Kostka, D. B. Watson, S. Brooks. 2011. Extensive Denitrification in the Subsurface of the Oak Ridge Integrated Field Research Challenge Site. Goldschmidt Conference, Prague, Czech Republic, June.
- Kostka, J.E., X. Lin, P. R. Chanton, S. J. Green, M. M. Tfaily, O. Prakash, J. P. Chanton, W. Cooper, J. M. Steinweg, and C. W. Schadt. 2012. The response of soil carbon storage and microbially mediated carbon turnover to simulated climatic disturbance in a northern peatland forest: revisiting the concept of soil organic matter recalcitrance. Terrestrial Ecosystem Science Principal Investigators Meeting, Washington, DC, April.
- Chanton, P.R., E. Aquadro, O. Prakash, J. Delgardio, X. Lin, J. M. Steinweg, C. Schadt, and J. E. Kostka. 2012. Determination of phenol oxidase activity and carbon storage in peatland of Marcell Experimental Forest in Northern Minnesota. Terrestrial Ecosystem Science Principal Investigators Meeting, Washington, DC, April.
- Lin, X., S. Green, M.M. Tfaily, O. Prakash, K. Konstantinidis, J.E. Corbett, J.P. Chanton, W. Cooper, J.E. Kostka. 2012. Multi-domain Community Composition Linked to Contrasting Biogeochemical Conditions in Bog and Fen Environments of The Glacial Lake Agassiz Peatland. American Society for Microbiology General Meeting, San Francisco, CA, May.
- Aklujkar, M.R., J. W. Voordeckers, J. Kostka, A. Kanak, K.-J. Chin and D. R. Lovley. 2012. Insights into degradation of aromatic and haloalkane compounds from the genome of *Geobacter daltonii*. American Society for Microbiology General Meeting, San Francisco, CA, May.
- Green, S.J., O. Prakash, P. Jasrotia, K. Jordan, L. Katz, L. Rishishwar, C. Schadt, S. Brooks, and J. E. Kostka. 2012. Genomic and physiological characterization of bacteria from the genus *Rhodanobacter*. American Society for Microbiology General Meeting, San Francisco, CA, May.
- Choi, H., X. Lin, P.R. Chanton, and J.E. Kostka. 2012. Mesophilic Crenarcheota in the Marcell Experimental Forest. Research Experience for Undergraduates Symposium, Georgia Institute of Technology, Atlanta, GA, July.
- Cooper, W.T., Hamdan, R., Zimmerman, A.W. 2012. “Characterization of Pyrogenic Black Carbon by Desorption Atmospheric Pressure Photoionization (DAPPI) coupled to Fourier-

- Transform Ion Cyclotron Resonance Mass Spectrometry”, 242nd National Meeting of the American Chemical Society, Denver, CO, August.
- Tfaily, M.M, Corbett, J. Elizabeth, Chanton, Jeffrey P., Cooper, William T., Burdige, David, and Glaser, Paul. 2012. ”Understanding Anaerobic C Dynamics and Methane Production in Peatlands through Molecular Characterization of Porewater DOM Reactivity: Oxygen Shedding by DOM during Fermentation”, International Wetland Conference, Orlando, FL, June 3-8.
- Corbett, J. Elizabeth, Chanton, Jeffrey P., Tfaily, M.M, Cooper, William T., Burdige, D. and Glaser, P. 2012. “Partitioning Peat Respiration in the Catotelm” International Wetland Conference, Orlando, FL, June 3-8.
- Overholt, W., Kostka, J.E., Huettel, M., Rodriguez, Luis, Kostas, T., Konstantinidis, T. 2013. Evidence for Microbial Community Succession in Contaminated Beach Sands. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.
- Hollander, D., Romero, I., Schwing, P., Larson, P.R., Watson, K., Zinzola, N., Brooks, G., Hastings, D.W., Chanton, J., Kostka, J. 2013. Testing the Mechanisms of Sedimentary Oil Deposition in Deep-Sea. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.
- Huettel, M., Kostka, J., Zuijdgheest, A., Samaras, C., Kaba, J., Wells, B., Dudley, S., Smith. 2013. Transport and decomposition of MC252-oil in permeable sediment. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.
- Ruddy, B.M., Huettel, M., Kostka, J.E., Lobodin, V.V., Bythell, B.J., McKenna, A.M., Aeppli, C., Nelson, R.K., Reddy, C.M., Marshall, A.G., Rodgers, R.P. 2013. New Insights into the Weathering of Macondo Well Oil: Analysis of Contaminated Sands from Pensacola Beach. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, January.
- Tfaily, M.M., J.P. Chanton, J.E. Kostka, X. Lin, J.M. Steinweg, C.W. Schadt W. T. Cooper, 2013. Identifying Dissolved Organic Matter Decomposition in Northern Peatlands using Complimentary Analytical Techniques. Terrestrial Ecosystem Science/ Subsurface Biogeochemical Research Principal Investigators Meeting, U.S. Department of Energy, Washington, DC, May.
- Cooper, W.T., M.M. Tfaily, J.P. Chanton, A. Invittaya, J.E. Kostka, X. Lin, P. Chanton, J.M. Steinweg, C.W. Schadt. 2013. Linking Chemical Signatures and Microbial Communities that Affect Carbon Cycling in Northern Peatlands. Terrestrial Ecosystem Science/ Subsurface Biogeochemical Research Principal Investigators Meeting, U.S. Department of Energy, Washington, DC, May.
- Gu, B., S. Brooks, D. Watson, G. Tang, T. Zimmerman, J. Earles, J. Stephens, T. Mehlhorn, K. Lowe, P. Jasrotia, K. Kemner, C. Schadt, J. Kostka. 2013. Geochemical Controls on the Immobilization of Metals and Radionuclides and Microbial Activity in a Highly Contaminated, Acidic Aquifer. Terrestrial Ecosystem Science/ Subsurface Biogeochemical Research Principal Investigators Meeting, U.S. Department of Energy, Washington, DC, May.
- Watson, D., C. Schadt, J. Kostka, P. Jasrotia, S. Green, K. Kemner, M. Boyanov, G. Baker, D. Phillips, S. Brooks. 2013. Hydrobiogeochemical Interactions along “Flow Tubes” Controls Watershed Scale Contaminant Flow and Transformation at the Oak Ridge IFRC. Terrestrial Ecosystem Science/ Subsurface Biogeochemical Research Principal Investigators Meeting, U.S. Department of Energy, Washington, DC, May.
- Lin, X., M.M. Tfaily, P. Chanton, J.M. Steinweg, J.P. Chanton, W. Cooper, C. Schadt, J.E. Kostka. 2013. Environmental controls over the distribution of microorganisms and organic

- matter reactivity at the ecosystem scale in a northern peatland. American Society for Microbiology Annual Meeting, Denver, CO, May.
- Rodriguez-R, L.M., W.A. Overholt, X. Lin, J. Delgado, M. Huettel, J. E. Kostka, K. T. Konstantinidis. 2013. Metagenomic insights into the effects of the Deepwater Horizon oil spill on indigenous microbial communities in beach sands. American Society for Microbiology Annual Meeting, Denver, CO, May.
- W.A. Overholt, K. P. Marks, A. Canion, J. Kaba, C. Hagan, B. Wells, M. Huettel, N. Norton, L.-M. Rodriguez Rojas, K. Konstantinidis, J. E. Kostka. 2013. The response of sedimentary microbial communities to oil contamination from the Deepwater Horizon oil spill in the Gulf of Mexico. American Society for Microbiology Annual Meeting, Denver, CO, May.
- G.R. Brooks, R.A. Larson, P.T. Schwing, I. Romero, C. Moore, G. Reichart, T. Jilbert, J.P. Chanton, D.W. Hastings, W.A. Overholt, K.P. Marks, J.E. Kostka, C.W. Holmes, and D. Hollander. 2014. Sedimentation pulse in the NE Gulf of Mexico following the 2010 DWH blowout. 2014 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, January.
- R.A. Larson, G.R. Brooks, P.T. Schwing, I. Romero, C. Moore, G. Reichart, T. Jilbert, J.P. Chanton, D.W. Hastings, W.A. Overholt, K.P. Marks, J.E. Kostka, C.W. Holmes, and D. Hollander. 2014. Utilizing ^{234}Th as a geochronometer in sediment cores following the 2010 DWH blowout. 2014 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, January.
- D.J. Hollander, I. Romero, P. Schwing, R. Larson, G. Brooks, D.W. Hastings, G. Too-Farmer, T. Murk, J.E. Kostka, J.P. Chanton, S. Murawski, and F. Muller-Karger. 2014. Did the mitigation strategies of Deepwater Horizon surfacing oil intensify processes associated with oil-flocculation and increase the “footprint” of sedimentary oil deposition. 2014 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, January.
- M. Huettel, J.E. Kostka, C. Hagan, J. Kaba, B. Wells, W. Overholt, S. Dudley, and C. Okolovitch. 2014. The degradation of hydrocarbons in sandy sediment of the northeastern Gulf. 2014 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, January.
- W. Wells, M. Huettel, J.E. Kostka, W. Overholt, J. Kaba, and I. Bociu. 2014. Influence of buried crude oil and algal material on oxygen consumption in sediments collected along a depth transect through DeSoto Canyon. 2014 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, January.
- C. Hagan J. Kaba, W. Wells, S. Dudley, J.E. Kostka, and M. Huettel. 2014. Polycyclic aromatic hydrocarbons of Deepwater Horizon oil buried in Pensacola Beach sands and their changes over time. 2014 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, January.
- C. Riesenfeld, W.H. Jeffrey, B. Davis, W. Overholt, J.E. Kostka, J.E. Lepo, and R.A. Snyder. 2014. Pensacola Beach surf zone microbial communities before, during, and after oil contamination. 2014 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, January.
- X. Sun, W. Overholt, K. Marks, B. Shin, K. Chin, and J.E. Kostka. 2014. Mapping of sedimentary microbial communities and identification of bioindicators for oil degradation in sediments of the northeastern Gulf of Mexico. 2014 Gulf of Mexico Oil Spill and Ecosystem Science Conference, Mobile, January.
- W. A. Overholt, L. M. Rodriguez-R, K. P. Marks, C. Hagan, J. Kaba, K. Konstantinidis, M. Huettel, J. E. Kostka. 2014. A succession in microbial populations parallels the evolution of hydrocarbon chemistry in Gulf of Mexico beach sands contaminated by Macondo oil from the Deepwater Horizon discharge. AGU/ASLO Ocean Sciences Meeting, Honolulu, February.

- J. E. Kostka, W. Overholt, K. Marks, X. Sun, B. Shin, T. Snell, M. Huettel, C. Hagan, B. Wells, J. Kaba, C. Okolovitch, K. Konstantinidis, L. M. Rodriguez-R, D. Hollander, G. Brooks, R. Larsen, P. Schwing, I. Romero. 2014. The response of benthic microbial communities in the Gulf of Mexico to the Deepwater Horizon oil discharge: from shallow coastal sands to the deepsea. AGU/ASLO Ocean Sciences Meeting, Honolulu, February.
- G.R. Brooks, R.A. Larson, P.T. Schwing, I. Romero, C. Moore, G.-J. Reichart, T. Jilbert, J.P. Chanton, D.W. Hastings, W.A Overholt, K.P. Marks, J.E. Kostka, C.W. Holmes, B. Flower, and D. Hollander. 2014. Sedimentation pulse in the NE Gulf of Mexico following the 2010 DWH blowout. AGU/ASLO Ocean Sciences Meeting, Honolulu, February.
- W.A. Overholt, K.P. Marks, L.-M. Rodriguez-R., C. Hagan, J. Kaba, K. Konstantinidis, M. Huettel, and J.E. Kostka. 2014. Oil in the beach: the microbial response to hydrocarbons parallels changes in oil chemistry. First Annual Southeastern Biogeochemistry Symposium, Atlanta, April.
- K. Esson, D. Kumaresan, C. Murrell, X. Lin, and J.E. Kostka. 2014. DNA stable isotope probing reveals a prevalence of type I methanotrophs in an acidic boreal peatland. First Annual Southeastern Biogeochemistry Symposium, Atlanta, April.
- J.C. Gaby, P. Steck, M. Blejwas, I.K. Jordan, and J.E. Kostka. 2014. A high-throughput sequencing pipeline for characterization of nitrogen-fixing communities. First Annual Southeastern Biogeochemistry Symposium, Atlanta, April.
- K.P. Marks, T.W. Snell, and J.E. Kostka. 2014. Impacts of Corexit EC9500A on oil biodegradation potential and toxicity to marine rotifer *Brachionus manjavacas*. First Annual Southeastern Biogeochemistry Symposium, Atlanta, April.
- B. Shin, W.A. Overholt, K. Chin, and J.E. Kostka. 2014. Anaerobic hydrocarbon-degradation by microorganisms isolated from the Deepwater Horizon oil spill. First Annual Southeastern Biogeochemistry Symposium, Atlanta, April.
- X. Sun, W. Overholt, K. Marks, B. Shin, K. Chin, and J.E. Kostka. 2014. Aerobic hydrocarbon degradation in deep sea sediments of the northeastern Gulf of Mexico. First Annual Southeastern Biogeochemistry Symposium, Atlanta, April.
- M.J. Warren, X. Lin, J.E. Kostka, Y. Oda, and J.B. Glass. 2014. Influence of temperature on alternative nitrogenase activity: implications for nitrogen cycling in high latitude peatlands. First Annual Southeastern Biogeochemistry Symposium, Atlanta, April.

Colloquia (Last 5 years):

“Transport, Biogeochemistry, and Ecology in Permeable Sediments,” Co-chair of special session, AGU/ ASLO Ocean Sciences Meeting, Orlando, FL, March, 2008

“The Shallow Subsurface Biosphere: Critical Geobiological Interface and Window into the Deep Biosphere,” Chair of symposium, 108th American Society for Microbiology General Meeting, Boston, MA, June, 2008

“Iron Geomicrobiology,” Co-chair of session, Goldschmidt Conference, Knoxville, TN, June, 2010.

“The fate of discharged hydrocarbons from the Macondo reservoir and the impacts to Gulf ecosystems”, AGU/ ASLO Ocean Sciences Meeting, Salt Lake City, February, 2012.

“Biodegradation pathways and environmental impacts of hydrocarbon discharge—omics and biogeochemistry approaches”. Chair of session, Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, January, 2013.

“Biogeochemical Transformation of Transition Elements in Aquatic Systems: A Symposium in Honor of George W. Luther's Accomplishments in Geochemistry”. Moderator of session. American Chemical Society 245th National Meeting & Exposition, New Orleans, April. 2013

“Contaminant Fate and Transport at the Groundwater-Surface Interface”. Goldschmidt International Geochemistry Conference, Co-chair of session, Florence, Italy, August, 2013.

“A celebration of the contributions of Bo Barker Jørgensen: Microbial transformations in transition - New views on the coupling of redox processes in nature”, Co-chair of session, Goldschmidt International Geochemistry Conference, Florence, Italy, August, 2013.

“Biogeo-Omics: Utilizing Biogeochemistry and -Omics Data to Unravel the Metabolic Pathways and Environmental Controls of Hydrocarbon Biodegradation.” Chair of Session with A. Teske, S. Joye (co-chairs), Honolulu, HI, February, 2014.

Committees - Georgia Tech:

Review, Promotion, Tenure Committee, School of Biology	2012 to present
Search Committee, Chair of Earth & Atmospheric Sciences	2012 to present

Honors, Awards, and Recognitions:

2014 College of Science Mentor Award, Georgia Tech
2013 Georgia Power Professor of Excellence, Georgia Tech
2005 Developing Scholar Award, Florida State University
2000 Ralph E. Powe Junior Faculty Enhancement Award, U.S. Department of Energy/ Oak Ridge Associated Universities
1993 National Science Foundation Postdoctoral Fellowship Award, Marine Biotechnology
1993 Selected to attend Dissertations Symposium in Chemical Oceanography (DISCO; sponsored by NSF, ONR, NOAA)
1993 Best Dissertation Award, Marine Biology, Univ. of Delaware
1986 Slocum-Lunz Foundation Competitive Fellowship in Marine Biology
1985 Honors Scholar in Biology, Western Illinois University
1985 Phi Kappa Phi Honor Society
1984 Tri-Beta Biological Honor Society

Membership in Professional and Honor Societies:

American Society for Microbiology (ASM)
American Geophysical Union (AGU)
American Society of Limnology and Oceanography (ASLO)

**Graduate and Undergraduate Students Supervised:
(Please give current positions of Ph.D. students, if known)**

Graduate Students - Florida State University:

Nadia North (M.S., graduated 8/03), Lockheed Martin Aeronautics, Palmdale, CA
Ellen Petrie (Ph.D., graduated 12/04), Florida Dept. of Environmental Protection
April Goldfinch (Ph.D., graduated 12/04), FSU College of Medicine
Evan Hunter (M.S., graduated 8/06), PBS&J Consulting, Tallahassee, FL
Denise Akob (Ph.D., graduated 12/08), U.S. Geological Survey, Reston, VA
Tom Gihring (Ph.D., graduated 5/09), Oak Ridge National Laboratory
Mike Humphrys (M.S., graduated 12/08), Centers for Disease Control, Atlanta, GA
Andy Canion (Ph.D., graduated 5/13), St. Johns River Water Management District
Puja Jasrotia (Ph.D., 5/08 to present)
Claire Smith (Ph.D., graduated 5/12)

Graduate Students - Georgia Tech:

Patrick Chanton, M.S., 2011 to present
Will Overholt, Ph.D., NSF Graduate Fellow, Biology, 2012 to present
Kaitlin Esson, Ph.D., Presidential Fellow, GAAN Scholar, Biology, 2012 to present
Xiaoxu Sun, Ph.D., Earth & Atmospheric Sciences, 2012 to present
Boryoung Shin, Ph.D., Earth & Atmospheric Sciences, 2012 to present

Undergraduate Students – Florida State University

2000-2002	Hayley Skelton
2001-2002	Gary Glover
2001-2002	Jamella White
2001-2003	Harold Adams
2003-2004	Deena Westbrook, Howard Hughes Fellow
2003	Julia Glicksberg
2004-2005	Robert Arnold
2005	Nicole Evans
2004-2007	Jonathan Delgardio
2007-2008	Ashley Riggs
2008-2010	Will Overholt, Honors Thesis
2008	Cynthia Ogolla
2009	Nicole Roberts
2009	Daniel Goldenberg

Undergraduate Students – Georgia Tech

2011-2012	Emily Aquadro
2012-2013	Kala Marks, PURA Fellow
2012	Lucia Chen
2013-present	Patrick Steck
2013-present	Samantha Healy

Postdoctoral Fellows Supervised: (Please give current positions, if known)

2001-2004	Sherry Dollhopf, NSF Postdoctoral Fellow in Microbial Biology Current position: Assoc. Professor of Biology, Alverno College
2004-2007	Heath Mills Current position: Asst. Professor, Oceanography, Texas A&M Univ.
2007-2010	Stefan Green Current position: Asst. Professor, University of Illinois at Chicago
2007-2011	Om Prakash Current position: Research Scientist, National Centre for Cell Sciences, Pune, India
2011-present	Xueju Lin
2013-present	John Christian Gaby