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Education:

University of Maryland, College Park, Ph.D. 1998. Biological Resources Engineering.

Advisor: Fredrick W. Wheaton (deceased)

Dissertation: "Prediction and NMR Determination of Fluid Velocity Distribution in Nitrifying Trickling Filters."

Pennsylvania State University, B.S. 1993. Agricultural Engineering. *Magna cum laude*.

Licensure:

Professional Engineer, State of Florida, license number 57510

Professional Engineer, State of New Jersey, license number 24GE04558900.

Professional Experience:

- 07/16 – present: **Assistant Research Professor** *Rutgers University*, Department of Environmental Sciences, New Brunswick, NJ. Research in metabolic activity and climate significance of airborne bacteria (bioaerosols) and bioremediation of contaminated sediments; teaching physical principles of environmental science and bioenvironmental engineering unit processes lecture and laboratory and applications of biotechnology in environmental science.
- 08/15 – 06/16: **Lecturer (Assistant Professor)** *Rutgers University*, Department of Environmental Sciences, New Brunswick, NJ. Research in metabolic activity and climate significance of airborne bacteria (bioaerosols) and bioremediation of contaminated sediments; teaching physical principles of environmental science and bioenvironmental engineering unit processes lecture and laboratory and applications of biotechnology in environmental science.
- 10/10 – 07/15: **Research Associate / Visiting Research Associate** *Rutgers University*, Department of Environmental Sciences, New Brunswick, NJ. Research in metabolic activity and climate significance of airborne bacteria (bioaerosols) and bioremediation of contaminated sediments; teaching physical principles of environmental science and bioenvironmental engineering unit processes lecture and laboratory and applications of biotechnology in environmental science.
- 03/09 – 09/10: **Post-Doctoral Research Fellow**, *Utrecht University*, Faculty of Geosciences, Utrecht, NL. Reactive transport modeling of coastal ocean sediments' response to ocean acidification. Advisors: Pierre Regnier and Philippe van Cappellen.
- 05/06 – 02/09: **Post-Doctoral Associate**, *Rutgers University*, Department of Environmental Sciences, New Brunswick, NJ. Engineering, field, and laboratory research for, "Quantifying Enhanced Microbial Dehalogenation Impacting the Fate and Transport of Organohalide Mixtures in Contaminated Sediments." Advisor: Donna Fennell.
- 1/06 – 5/06: **Adjunct Professor**, *Rowan University*, Department of Civil and Environmental Engineering, Glassboro, NJ. Taught Environmental Engineering II: Solid and Hazardous Waste.
- 11/03 – 04/06: **Project Specialist**, *Delta Environmental Consultants*, Mount Laurel, NJ. Selected and designed remedial strategies for portfolio of 140 petroleum-contaminated sites.
- 12/02 – 11/03: **Process Control Engineer**, *Passaic Valley Sewerage Commissioners*, Newark, NJ. Monitored and modeled unit operations and processes at a 330 MGD wastewater treatment plant.
- 5/00 – 8/02: **Biological Engineer**, *Dynamac Corporation*, NASA Life Sciences Support Contract, Kennedy Space Center, FL. Designed and tested bioreactors for wastewater treatment, solid waste, and resource recovery for extended missions.
- 4/99 – 4/00: **Faculty Research Associate**, *University of Maryland*, College Park. Investigated biofiltration in recirculating aquaculture systems.

Professional Experience (continued):

- 8/95 – 12/98: **Graduate Fellow**, *University of Maryland*, College Park.
Modeled flow distribution in trickling filters, using NMRI to validate the model.
- 5/96 – 8/96: **Site Manager**, *Baltec Associates, Inc.*, Bedford, NY.
Managed remedial investigations at 30 petroleum-contaminated sites in metro NYC
- 1/94 – 8/95: **Engineer**, *Baltec Associates, Inc.*, Bedford, NY.
- 8/92 – 12/92: **Engineering Teaching Intern**, *Penn State University*, University Park, PA.
- 6/92 – 8/92: **Assistant to Corporate Toxicologist**, *Betz Laboratories*, Trevese PA.

Research Funding:

- 2016-2017 New Jersey Water Resources Research Institute, A molecular tool to measure dechlorinator activity *in situ*. PI: **V. Krumins**; co-PI: D.E. Fennell. \$19,724.
- 2015-2017 National Science Foundation. UNS: Airborne Microbes as Mitigators of Greenhouse Gases. PI: Fennell, D.E.; co-PIs: L.J. Kerkhof, **V. Krumins** and G. Mainelis. \$227,573.
- 2016-2017 Rutgers Center for Global Programs and Relations. International Collaborative Research “Microbial Influences in the Atmosphere.” PI: D.E. Fennell; Co-PIs: **V. Krumins**, G. Mainelis, A.M. Carlton; International collaborator, A.M. Delort. \$8,000.
- 2016-2018 National Science Foundation. SusChEM: Increasing soil enzymatic function with microbial inoculates from contaminated environments. PI: N. Goodey. \$300,000. Role: Senior personnel.
- 2011-2014 DuPont Corporation. Where is microbial dehalogenation occurring in the groundwater at Chambers Works? PI: L.A. Rodenburg; co-PI: **V. Krumins**. \$300,000.
- 2007-2008 Rutgers University Equine Science Center. Horse manure to bioenergy technology for on-farm or regional application. PI: D.E. Fennell; co-PIs: **V. Krumins**, A.J. Both, C. Obropta and M. Westendorf. \$100,000.
- 1997-1998. US Environmental Protection Agency. Science to Achieve Results (STAR) Ph.D. fellowship: Liquid Flow Distribution in Nitrifying Trickling Filters. PI: **V. Krumins**, \$92,235.

Peer-Reviewed Publications:

- Krumins, V.**, W. Sun, J. Guo, S. Capozzi, D.E. Fennell and L.A. Rodenburg. Sewer sediment bacterial communities suggest potential to transform persistent organic pollutants. *Water Environment Research (accepted)*.
- Sun, W., E. Xiao, Z. Pu, **V. Krumins**, Y. Dong, B. Li, M. Hu. 2018. Paddy soil microbial communities driven by environment- and microbe-microbe interactions: A case study of elevation-resolved microbial communities in a rice terrace. *Science of the Total Environment*. 612:884–893. DOI: 10.1016/j.scitotenv.2017.08.275
- Sun, W., E. Xiao, T. Xiao, **V. Krumins**, Q. Wang, M.M. Häggblom, Y. Dong, S. Tang, M. Hu, B. Li, B. Xia, W. Liu. 2017. Response of soil microbial communities to elevated antimony and arsenic contamination indicates the relationship between the innate microbiota and contaminant fractions. *Environmental Science and Technology*, DOI: 10.1021/acs.est.7b00294.
- Sun, W., **V. Krumins**, Y. Dong, P. Gao, C. Ma, M. Hu, C. Li, B. Xia, Z. He and S. Xiong. 2017. A Combination of Stable Isotope Probing, Illumina Sequencing, and Co-occurrence Network to Investigate Thermophilic Acetate- and Lactate-Utilizing Bacteria. *Microbial Ecology*, 2017 Jul 1. doi: 10.1007/s00248-017-1017-8.
- Xiao, E., **V. Krumins**, T. Xiao, Y. Dong, Z. Ning, S. Tang, Z. Huang and W. Sun. 2016. Depth-resolved microbial community analyses in two contrasting soil cores contaminated by antimony and arsenic. *Environmental Pollution* 221: 244–255. DOI:10.1016/j.envpol.2016.11.071.

Peer-Reviewed Publications (continued):

- Sun, W., E. Xiao, **V. Krumins**, Y. Dong, T. Xiao, Z. Ning, H. Chen, and Q. Xiao. 2016. Characterization of the microbial community composition and the distribution of Fe-metabolizing bacteria in a creek contaminated by acid mine drainage. *Applied Microbiology and Biotechnology* 06/2016: DOI:10.1007/s00253-016-7653-y
- Sun, W., E. Xiao, M. Kalin, **V. Krumins**, Y. Dong, Z. Ning, T. Liu, M. Sun, Y. Zhao, S. Wu, J. Mao, T. Xiao. 2016. Remediation of antimony-rich mine waters: assessment of antimony removal and shifts in the microbial community of an onsite field-scale bioreactor. *Environmental Pollution* 215:213-222. DOI:10.1016/j.envpol.2016.05.008.
- Xiao, E., **V. Krumins**, Y. Dong, T. Xiao, Z. Ning, Q. Xiao and W. Sun. 2016. Microbial diversity and community structure in an antimony-rich tailings dump. *Applied Microbiology and Biotechnology* 100(17):7751-63. DOI: 10.1007/s00253-016-7598-1
- Xiao, E., **V. Krumins**, T. Song, T. Xiao, Z. Ning, X. Lan, W. Sun. 2016. Correlating microbial community profiles with geochemical conditions in a watershed heavily contaminated by an antimony tailing pond. *Environmental Pollution* 215:141-153. DOI: 10.1016/j.envpol.2016.04.087
- Sun, W., E. Xiao, Y. Dong, S. Tang, **V. Krumins**, Z. Ning, M. Sun, Y. Zhao, S. Wu, T. Xiao. 2016. Profiling microbial community in a watershed heavily contaminated by an active antimony (Sb) mine in Southwest China. *Science of the Total Environment* 550:297–308. doi:10.1016/j.scitotenv.2016.01.090.
- Zhen, H., **V. Krumins**, D.E. Fennell and G. Mainelis. 2015. Development of a Dual-internal-reference Technique to Improve Accuracy in Determination of Bacterial 16S rRNA: 16S rRNA Gene Ratio with Application to *Escherichia coli* Liquid and Aerosol Samples. *Journal of Microbiological Methods* (2015):113-121 DOI: 10.1016/j.mimet.2015.07.023.
- Krumins J.A., **V. Krumins**, E. Forgoston, L. Billings and W.H. van der Putten. 2015. Herbivory and Stoichiometric Feedbacks to Primary Production. *PLoS ONE* 10(6): e0129775. doi:10.1371/journal.pone.0129775
- Rodenburg, L., **V. Krumins** and J. Curran. 2015. Microbial dechlorination of polychlorinated biphenyls, dibenzo-p-dioxins, and -furans in groundwater at the Portland Harbor superfund site, Oregon, USA. *Environmental Science and Technology* 49 (12):7227–7235. DOI: 10.1021/acs.est.5b01092
- Krumins, V.**, G. Mainelis, L. Kerkhof and D.E. Fennell. 2014. Substrate-Dependent rRNA Production in an Airborne Bacterium. *Environmental Science and Technology Letters* 1 (9):376–381. DOI: 10.1021/ez500245y.
- Krumins, V.** and D.E. Fennell. 2014. Identifying the correct model for PCB and dioxin dechlorination. *Environmental Engineering Science* 31(10): 548-555. DOI: 10.1089/ees.2013.0463.
- Krumins, V.**, M. Gehlen, S. Arndt, P. van Cappellen, and P. Regnier. 2013. Dissolved inorganic carbon and alkalinity fluxes from coastal marine sediments: model estimates for different shelf environments and sensitivity to global change. *Biogeosciences* 10: 371-398. DOI: 10.5194/bg-10-371-2013.
- Wartell, B.A., **V. Krumins**, J. Alt, K. Kang, B.J. Schwab and D.E. Fennell. 2012. Methane Production from horse manure and stall waste with softwood bedding. *Bioresource Technology* 112:42-50. DOI: 10.1016/j.biortech.2012.02.012.
- Krumins, V.**, M. Gehlen, S. Arndt, P. van Cappellen, and P. Regnier. 2012 Dissolved inorganic carbon and alkalinity fluxes from coastal marine sediments: model estimates for different shelf environments and sensitivity to global change *Biogeosciences Discussion* 9:8475-8539.
- Park, J.-W., **V. Krumins**, B.V. Kjellerup, D.E. Fennell, L.A. Rodenburg, K.R. Sowers, L.J. Kerkhof, and M.M. Häggblom. 2010. The effect of cosubstrate-activation on indigenous and bioaugmented PCB dechlorinating bacterial communities in sediment microcosms. *Applied Microbiology and Biotechnology* 89(6):2005-2017.
- Krumins V.**, J.-W. Park, E.-K. Son, L.A. Rodenburg, L.J. Kerkhof, M.M. Häggblom, and D.E. Fennell. 2009. Sustained PCB Dechlorination Enhancement in Anacostia River Sediment Microcosms. *Water Research*. 43(2009): 4549-4558.

Peer-Reviewed Publications (continued):

- Seshadri, S., T. Han, **V. Krumins**, D.E. Fennell, and G. Mainelis. 2009. Application of ATP Bioluminescence Method to Characterize Performance of Bioaerosol Sampling Devices. *Journal of Aerosol Science* 40(2):113-121.
- Krumins, V.**, E.-K. Son, G. Mainelis, and D.E. Fennell. 2008. Retention of Inactivated Bioaerosols and Ethene in a Rotating Bioreactor Constructed for Bioaerosol Activity Studies. *Clean – Soil, Air, Water* 36 (7): 593-600.
- Peterson, B.V, M. Hummerick, M.S. Roberts, **V. Krumins**, A.L. Kish, J.L. Garland, S. Maxwell, and A. Mills. 2004. Characterization of Microbial and Chemical Composition of Shuttle Wet Waste with Permanent Gas and Volatile Organic Compound Analyses. *Advances in Space Research*, 34(2004):1470–1476.
- Strayer, R.F., M.P. Hummerick, J.L. Garland, M.S. Roberts, L.H. Levine, and **V. Krumins**. 2003. Treatment of Spacecraft Wastewater in a Submerged-Membrane Biological Reactor. SAE Technical Report 2003-01-2556. Warrendale, PA: SAE.
- Krumins, V.**, M. Hummerick., L. Levine, R. Strayer, J. Adams, and J. Bauer. 2002. Effect of Hydraulic Retention Time on Inorganic Nutrient Recovery and Biodegradable Organics Removal in a Biofilm Reactor Treating Plant Biomass Leachate. *Bioresource Technology*, 85(3):243-248.
- Garland, J.L., M.P. Hummerick, L.H. Levine, and **V. Krumins**. 2002. The Effect of Microbial Growth on Feed Stability and Delivery in a Denitrifying Fixed Bed Reactor Designed for Space Flight to Recycle Graywater. SAE Technical Report 2002-01-2354. Warrendale, PA: SAE.
- Krumins, V.**, Strayer, R., and A. Drysdale. 2002. Costs and Benefits of Bioreactors. SAE Technical Report 2002-01-2523. Warrendale, PA: SAE
- Krumins, V.**, Koss, L., Hummerick, M., and R. Strayer. 2002. Continuous Leaching (Bio)reactor. SAE Technical Report 2002-01-2350. Warrendale, PA: SAE.
- Strayer, R.F., **V. Krumins**, M. Hummerick, and C. Nash. 2001. Bioprocessing to Recover Crop Nutrients from Advanced Life Support (ALS) Solid Wastes: Improving Rapid Biological Processing of ALS Inedible Crop Residues. SAE Technical Report 2001-01-2208. Warrendale, PA: SAE.
- Strayer, R.F., M. Hummerick, **V. Krumins**, D. Back, and C. Ramos. 2001. Bioprocessing to Recover Crop Nutrients from ALS Solid Wastes: A Two-Stage Solid-Liquid Separation System for Removal of Particulates from Bioreactor 'Broth'. SAE Technical Report 2001-01-2205. Warrendale, PA: SAE.
- Krumins, V.**, J. Ebeling, and F. Wheaton. 2001. Ozone's Effects on Power-Law Particle Size Distributions in Recirculating Aquaculture Systems. *Aquacultural Engineering*, 25(1):13-24.
- Krumins, V.**, J. Ebeling, and F. Wheaton. 2001. Part-Day Ozonation for Nitrogen and Organic Carbon Control in Recirculating Aquaculture Systems. *Aquacultural Engineering* 24(3):231-241.
- Krumins, V.**, M. Line and F. Wheaton. 2000. Fluid Velocity Distribution in Nitrifying Trickling Filters: Mathematical Model and NMR Calibration. *Water Research* 34(8):2337-2345.

Articles in Review:

- Zhen, H. **V. Krumins**, D.E. Fennell and G. Mainelis. Analysis of Airborne Microbial Communities Using 16S ribosomal RNA: Potential Bias due to Air Sampling Stress. *Science of the Total Environment*.
- Min, H., W. Sun, **V. Krumins**, and F. Li. Structure and Function of Microbial Community on Root Iron Plaque of Paddy Rice from As-Contaminated Soil. *Applied and Environmental Microbiology*.

Articles in Preparation:

- Krumins, V.**, M. Abadjev, S. Boeren, T. Kruse, P. Schaap, H. Smidt, G. Mainelis, L.J. Kerkhof, and D.E. Fennell, Protein expression by aerosolized *Sphingomonas aerolata*. *For submission to Applied and Environmental Microbiology*.
- Capozzi, S., **V. Krumins**, and L.A. Rodenburg. Using positive matrix factorization to investigate microbial dechlorination of contaminants in groundwater. *For submission to Environmental Science and Technology*
- Rattana, S., **V. Krumins** and D.E. Fennell. Ammonia Tolerant Microorganisms in Two Landfill Leachates. *For submission to Environmental Science and Technology*.

Book Chapters:

- Sun, W., **V. Krumins**, D.E. Fennell, L.J. Kerkhof and M.M. Häggblom. 2015. Anaerobic degradation of aromatic compounds. in: *ASM Manual of Environmental Microbiology*, 4th ed. M. Yates, C. Nakatsu, R. Miller, S. Pillai, eds. Washington DC: ASM press.
- Singh, S., F. Wheaton, J. Ebeling, **V. Krumins**, and J. McMillan. 1997. Organic Waste Characterization for Four Different Configurations of Recirculating Aquaculture Systems. pp 19-28 in: *Advances in Aquacultural Engineering*. M. B. Timmons and T. Losordo, eds. Publication number NRAES-105. Northeast Regional Agricultural Engineering Services. Ithaca, NY: Cornell University.

Other Technical Publications:

- Wartell, B., **V. Krumins**, R. George, J. Alt, B. Schwab, K. Kang and D.E. Fennell. 2008. Anaerobic Digestion of Equine Stall Waste. 2008. ASABE Paper no. 084253 St. Joseph, MI.: ASABE.
- Fennell, D.E., R. George, **V. Krumins**, J. Alt, A. Caluseriu, K. Lam, J. Thompson, J. Song, and Y. Ma. 2007. Enhancing Watershed Protection with Development of Economical Manure Management Technology: Horse Manure to BioEnergy. USDA CSREES Region 2 Water Quality Coordination Project, NJWRRRI Undergraduate Student Stipend Program.
- Rodriguez-Carias, A.A., J. Sager, **V. Krumins**, R. Strayer, M. Hummerick, and M.S. Roberts. 2002. In-vessel composting of simulated long-term mission space-related solid wastes. NASA/ASEE Summer faculty fellowship program, John F. Kennedy Space Center, University of Central Florida.
- Costello, T.A., J.C. Sager, **V. Krumins**, and R.M. Wheeler. 2002. Implementation of autonomous control technology for plant growth chambers. NASA/ASEE Summer faculty fellowship program, John F. Kennedy Space Center, University of Central Florida.
- Krumins, V.**, R. Strayer, and M. Hummerick. 2001. Development of a Fixed-Film Bioreactor for Recycling of Inedible Plant Nutrients in Controlled Biological Systems. ASAE Paper No. 01-7026. St. Joseph, MI.: ASAE.

Proceedings:

- Krumins, V.**, P. van Cappellen and P. Regnier. 2010. Carbon burial and benthic fluxes in coastal marine sediments: model study and sensitivity analysis. *Goldschmidt 2010 Abstracts*, A542.
- Krumins, V.**, P. van Cappellen and P. Regnier. 2010. Reactive transport modeling of the impact of ocean acidification on global carbon and nutrient fluxes in coastal marine sediments. *Geophysical Research Abstracts* 12, EGU2010-10663.
- Fennell, D.E., **V. Krumins**, J.-W. Park, L.A. Rodenburg, M.M. Häggblom, and L.J. Kerkhof. 2008. Stimulation of reductive dechlorination of PCBs in contaminated sediments. Symposia Papers Presented before the Division of Environmental Chemistry, American Chemical Society, 48(2), pp. 522-526. 236th ACS National Meeting, Philadelphia, PA.
- Fennell, D.E., **V. Krumins**, B. Ravit, and L.A. and Totten. 2007. Bioremediation approaches for PCB- and PCDD/F-contaminated sediments. Symposia Papers Presented before the Division of Environmental Chemistry, American Chemical Society, 47(2), pp. 393-397. 234th ACS National Meeting, Boston, MA.
- Krumins, V.**, F. Liu, and D.E. Fennell. 2007. Comparison of Dechlorination of Polychlorinated Dibenzo-*p*-dioxin Under Conditions Designed to Enhance Bioavailability. Ninth International Symposium on In Situ and Onsite Bioremediation. 6-10 May 2007, Baltimore MD.
- Daumer, K., L. Levine, **V. Krumins**, S. Ripp, and J. Garland. 2002. Real-Time Response Characteristics of a Bioluminescent Bioreporter towards Microbial Volatile Organic Contaminants (MVOCs). 12th International Symposium on Bioluminescence & Chemiluminescence, 5-9 April 2002, Cambridge, UK. abstract published in *Luminescence* 17:355–361.
- Krumins, V.**, J. Ebeling, and F. Wheaton. 2000. Ozone dose and equilibrium TOC in recirculating systems. pp. 1-4. In: *Proceedings of the Third International Conference on Recirculating Aquaculture*. Virginia Polytechnic and State University, Sea Grant Program. Blacksburg, VA.

Invited Oral Presentations:

- Krumins, V.** Metabolic activity of airborne bacteria. Montclair State University Sustainability Seminar series, 27 Sep 2016, Montclair, NJ.
- Krumins, V.** Reactors to treat wastes, recover resources and study airborne microbes. United States Department of Agriculture Eastern Regional Research Center, 8 August 2016, Philadelphia, PA.
- Krumins, V.** Metagenomics of sewer sediments and the air. Rutgers School of Environmental and Biological Sciences Genome Cooperative, 2 February 2016, New Brunswick, NJ
- Krumins, V.** Investigations of bacterial activity in overlooked environments: outdoor air and sewer sediments. Brooklyn College Department of Chemistry, 10 December 2014, Brooklyn, NY.
- Krumins, V.** Bacterial diversity and activity in overlooked environments. Rutgers University Department of Biochemistry and Microbiology, 4 April 2014, New Brunswick, NJ.
- Krumins, V.** Bacterial diversity and activity in overlooked environments in your neighborhood: outdoor air and sewer sediments. New Jersey Institute of Technology Department of Chemistry and Environmental Science, 3 April 2014, Newark, NJ.
- Krumins, V.** Bacterial diversity and activity in overlooked environments in your neighborhood. Stevens Institute of Technology Department of Civil, Environmental and Ocean Engineering, 27 March 2014, Hoboken, NJ.
- Krumins, V.,** M. Gehlen, P. Van Cappellen and P. Regnier. Global carbon and alkalinity fluxes from coastal marine sediments. Rutgers University Institute of Marine and Coastal Sciences, 17 October 2011, New Brunswick, NJ.
- Krumins V.** Biostimulation and Bioaugmentation to Enhance Reductive Dechlorination of PCBs in Contaminated Sediments. Michigan Technological University Department of Civil and Environmental Engineering. 20 March 2009, Houghton, MI.

Platform Presentations:

- Schneider, C., **V. Krumins**, H. Al Mnehlawi, L.A. Rodenburg and D.E. Fennell. Stimulation of dechlorination of lightly-chlorinated dibenzo-*p*-dioxins in aquatic sediments. Fourth International Symposium on Bioremediation and Sustainable Environmental Technologies, 22-25 May 2017, Miami, FL.
- Capozzi, S.L., L.A. Rodenburg, **V. Krumins**, D.E. Fennell, and E.E. Mack. Using Positive Matrix Factorization to Investigate Microbial Dehalogenation of Contaminants in Groundwater. Fourth International Symposium on Bioremediation and Sustainable Environmental Technologies, 22-25 May 2017, Miami, FL.
- Sun, W., **V. Krumins**, E. Xiao, Y. Dong, and T. Xiao. Microbial response to antimony contamination in severely antimony-contaminated environments and bioremediation thereof by an onsite field-scale bioreactor. 252nd American Chemical Society National Meeting, 21-25 Aug 2016, Philadelphia, PA.
- Zhen, H., **V. Krumins**, T. Han, D.E. Fennell and G. Mainelis. Effect of bioaerosol sampling stress on 16S rRNA/rRNA-gene ratio of airborne bacteria. American Association for Aerosol Research 33rd Annual Conference, 20-24 Oct 2014, Orlando, FL.
- Krumins, V.,** M. Abadjev, S. Boeren, T. Kruse, P. Schaap, H. Smidt, G. Mainelis, L.J. Kerkhof and D.E. Fennell. Proteomic Analysis of *Sphingomonas aerolata* Incubated in the Airborne State. American Association for Aerosol Research 33rd Annual Conference, 20-24 Oct 2014, Orlando, FL.
- Krumins, V.,** L. Kerkhof, G. Mainelis, and D. Fennell. Airborne bacteria utilize VOC substrates to produce ribosomes and DNA. American Society for Microbiology 114th General Meeting, 17-20 May 2014, Boston, MA.
- Rattana, S., D.E. Fennell, and **V. Krumins** Enrichment and Identification of Ammonia Tolerant Microorganisms from Landfill Leachates. 29th International Conference on Solid Waste Technology and Management. 30 Mar – 2 Apr 2014, Philadelphia, PA.
- Capozzi, S., L.A. Rodenburg, **V. Krumins**, J. Guo, and A. Murphy. Degradation of Halogenated Pollutants by Anaerobic Bacteria in Sewers. Society of Environmental Toxicology and Chemistry 34th Annual Meeting, 22 Nov 2013, Nashville, TN.

Platform Presentations (continued):

- Krumins, V.**, S. Boeren, P. Schaap, H. Smidt, G. Mainelis, L. Kerkhof and D. Fennell. Differential proteomic analysis of *Sphingomonas aerolata* bioaerosols. American Association for Aerosol Research 32nd Annual Conference, 30 Sep – 4 Oct 2013, Portland, OR.
- Krumins, V.**, V. Partee, L. Kerkhof, G. Mainelis, and D. Fennell. Evidence that bioaerosols are metabolically active. American Association of Environmental Engineering and Science Professors 50th Annual Meeting, 14-16 July 2013, Golden, CO.
- Krumins, V.**, V. Partee, G. Mainelis, L. Kerkhof, and D. Fennell. Studying the diversity and metabolic potential of airborne microbes. 30 April 2012. Theobald Smith Society (NJ Chapter ASM) Annual Meeting in Miniature. New Brunswick, NJ.
- Krumins, J.A., **V. Krumins** and W.H. van der Putten. Modeling microbial communities in soil food web. Ecological Society of America Annual Meeting, 7-12 August 2011, Austin, TX.
- Krumins, J.A., **V. Krumins** and W.H. van der Putten. Rhizosphere herbivory and microbial communities. Ecology of Soil Microorganisms. 27 April - 1 May 2011, Prague, The Czech Republic.
- Krumins, V.**, M. Gehlen, P. van Cappellen, and P. Regnier. Global coastal sediment model carbon and alkalinity return fluxes: sensitivity to POC and PIC deposition and bottom water DIC. EPOCA, BIOACID and UKOARP annual meeting, 27 - 30 September 2010, Bremerhaven, Germany.
- Krumins, V.**, P. van Cappellen and P. Regnier. Carbon burial and benthic fluxes in coastal marine sediments: model study and sensitivity analysis. Goldschmidt 2010, 13-18 June 2010, Knoxville, TN.
- Krumins, V.**, M. Gehlen, P. van Cappellen and P. Regnier. Reactive transport modeling of global carbon burial and benthic fluxes from coastal marine sediments. Eutro2010: 3rd Int'l Symposium on Research and Management of Eutrophication in Coastal Ecosystems, 15-18 June 2010, Nyborg, Denmark.
- Seshadri, S., T. Han, **V. Krumins**, D.E. Fennell and G. Mainelis. A New Method to Characterize Bioagent Collection Devices using ATP Bioluminescence. Scientific Conference on Obscuration & Aerosol Research. 23 June 2009, Aberdeen, MD.
- Krumins, V.**, B. Wartell, and D.E. Fennell. Anaerobic Digestion of Equine Waste with Softwood Bedding. 8th BioCycle Conference on Renewable Energy from Organics Recycling, October 6-7, 2008, Madison, WI
- Seshadri, S., T. Han, **V. Krumins**, D.E. Fennell, and G. Mainelis. Characterization of Bioaerosol Sampling Devices Using ATP Bioluminescence. American Association for Aerosol Research 27th annual conference, 20-24 October 2008, Orlando, FL.
- Fennell, D.E., **V. Krumins**, J.-W. Park, L.A. Rodenburg, M.M. Häggblom, and L.J. Kerkhof. Stimulation of reductive dechlorination of PCBs in contaminated sediments. 236th Meeting of the American Chemical Society, August 17-21, 2008, Philadelphia, PA.
- Rodenburg, L.A., **V. Krumins**, J.-W. Park, M.M. Häggblom, L.J. Kerkhof, and D.E. Fennell. Stimulation of PCB Dechlorination and Dechlorinators in Contaminated Sediments. 5th SETAC World Congress, August 3-7, 2008, Sydney, Australia.
- Seshadri, S., T. Han, **V. Krumins**, D.E. Fennell, and G. Mainelis. A New Method to Characterize Bioagent Collection Devices using ATP Bioluminescence. 2008 Scientific Conference on Obscuration & Aerosol Research. 26 June 2008, Aberdeen, MD.
- Wartell, B., **V. Krumins**, and D. Fennell. The effect of softwood bedding on anaerobic digestion of equine waste. 23rd International Conference on Solid Waste, Journal of Solid Waste Technology and Management. March 30 - April 2, 2008, Philadelphia, PA.
- Fennell, D.E., F. Liu, E.-K. Son, and **V. Krumins**. Biokinetic Analysis of PCDD/F Dechlorination by *Dehalococcoides* Sixth International Conference on Remediation of Chlorinated and Recalcitrant Compounds. May 19-22, 2008. Monterey, CA
- Krumins, V.**, B. Ravit, L. Totten, and D. Fennell. Dechlorination of Native PCBs in Kearny Marsh Sediments. Meadowlands Symposium II. May 15-17, 2007. Lyndhurst, NJ.
- Fennell, D.E., **V. Krumins**, B. Ravit, and L.A. Totten. Bioremediation approaches for PCB- and PCDD/F-contaminated sediments. American Chemical Society Meeting. August 19-23, 2007. Boston, MA

Platform Presentations (continued):

- Fennell, D.E., F. Liu, E.K. Son, and **V. Krumins**. Remediation of Sediments Contaminated by Dioxins and PCBs: Is There a Role for “Bio”? Microbiology at Rutgers University: cultivating traditions, current strength, and future frontiers. January 25-26, 2007. New Brunswick, NJ.
- Strayer, R.F., M.P. Hummerick, J.L Garland, M.S. Roberts, L.H. Levine, and **V. Krumins**. Treatment of Spacecraft Wastewater in a Submerged-Membrane Biological Reactor. 33rd International Conference on Environmental Systems 7-10 July 2003. Vancouver, BC.
- Garland, J.L., M.P. Hummerick, L.H. Levine, and **V. Krumins**. The Effect of Microbial Growth on Feed Stability and Delivery in a Denitrifying Fixed Bed Reactor Designed for Space Flight to Recycle Graywater. 32nd International Conference on Environmental Systems. 15-18 July 2002, San Antonio.
- Krumins, V.**, Strayer, R., and A. Drysdale. Costs and Benefits of Bioreactors. 32nd International Conference on Environmental Systems. 15-18 July 2002, San Antonio, TX.
- Krumins, V.**, Koss, L., Hummerick, M., and R. Strayer. Continuous Leaching (Bio)reactor. 32nd International Conference on Environmental Systems. 15-18 July 2002, San Antonio, TX.
- Strayer, R.F., M. Hummerick, **V. Krumins**, D. Back, and C. Ramos. Bioprocessing to Recover Crop Nutrients from ALS Solid Wastes: A Two-Stage Solid-Liquid Separation System For Removal of Particulates from Bioreactor ‘Broth’. 31st International Conference on Environmental Systems. 9-12 July 2001. Orlando, FL.
- Strayer, R.F., **V. Krumins**, M. Hummerick, and C. Nash. Bioprocessing to Recover Crop Nutrients from Advanced Life Support (ALS) Solid Wastes: Improving Rapid Biological Processing of ALS Inedible Crop Residues. 31st International Conference on Environmental Systems. 9-12 July 2001. Orlando, FL.
- Krumins, V.**, R. Strayer, and M. Hummerick. Development of a Fixed-Film Bioreactor for Recycling of Inedible Plant Nutrients in Controlled Biological Systems. ASAE 2001 Annual meeting, 30 July – 1 August 2001. Sacramento, CA.
- Krumins, V.**, R. Strayer, and M. Hummerick, J. Judkins, C. Nash, and D. Back. Progress in Processing Inedible Plant Biomass in Advanced Life Support Systems. Bioastronautics Investigators’ Workshop, 17-19 January 2001, Galveston, TX.
- Strayer, R. F., **V. Krumins**, M. Hummerick, J. Garland, and N. Yorio. Development of a Biological Reactor System for Integrated Solid Waste Processing with Focus on Crop Nutrient Recovery. American Society for Gravitational and Space Biology, 17th Annual Meeting, 7-10 November 2001, Alexandria, VA.
- Strayer, R.F., **V. Krumins** and M. Hummerick. Research Progress: ALS Solid Waste Bioregenerative Resource Recovery. ASGSB 17th Annual Meeting, 7-10 November 2001, Alexandria, VA.
- Krumins, V.**, J. Ebeling, and F. Wheaton. Ozone Dose and Equilibrium TOC in Recirculating Systems. Third International Conference on Recirculating Aquaculture, 20-23 July, 2000, Roanoke, VA.
- Krumins, V.**, J. Ebeling, and F. Wheaton. Daily Ozone Cycling. Aquaculture America 2000, 2-5 February 2000, New Orleans, LA.
- Krumins, V.** and J. Ebeling. Diurnal Nitrogen and Organic Carbon Fluctuation in Recirculating Aquaculture Systems. Aquaculture America 2000, 2-5 February 2000, New Orleans, LA.
- Krumins, V.** Prediction and NMR Determination of Fluid Film Thickness and Velocity Distribution in Nitrifying Trickle Filters. Second International Conference on Recirculating Aquaculture, 16-19 July 1998, Roanoke, VA.
- Singh, S., F. W. Wheaton, J. Ebeling, **V. Krumins**, and J. McMillan. 1998. Effect of Recycling System Filter Configuration on TOC-BOD-TAN. Aquacultural Engineering Society / World Aquaculture Society Meeting, 15–19 February 1998, Las Vegas, NV.

Poster Presentations:

- Krumins, V.**, K. Dillon, G. Mainelis, L. Kerkhof, L. McGuinness and D. Fennell. Airborne Bacteria Grow on Methane in Air. Atmospheric Chemical and Biological Processes: Interactions and Impacts (ATMOCHEMBO), 19-21 June 2017, Clermont-Ferrand, France.

Poster Presentations (continued):

- Dillon, K., **V. Krumins**, L.R. McGuinness, L.J. Kerkhof, G. Mainelis and D.E. Fennell. CO₂ Fixation by Microbes In The Atmosphere. Atmospheric Chemical and Biological Processes: Interactions and Impacts (ATMOCHEMIO), 19-21 June 2017, Clermont-Ferrand, France.
- Dillon, K.P., **V. Krumins**, L.R. McGuinness, L.J. Kerkhof, G. Mainelis and D.E.Fennell. Assessment of Methanotrophic activity in air. Theobald Smith Society, North Jersey Branch, ASM Meeting in Miniature. Montclair State University , 7 Apr 2017, Montclair, NJ.
- Dillon, K., **V. Krumins** and D.E. Fennell. Methanotrophic Activity in Air. Rutgers Microbiology Symposium, 2-3 Feb 2017, New Brunswick, NJ.
- Krumins, V.**, M. Abadjev, S. Boeren, T. Kruse, P. Schaap, H. Smidt, L. Kerkhof, G. Mainelis, and D. Fennell. Protein Expression by Aerosols of *Sphingomonas aerolata*. Rutgers Microbiology Symposium, 2-3 Feb 2017, New Brunswick, NJ.
- Krumins, V.**, M. Abadjev, S. Boeren, T. Kruse, P. Schaap, H. Smidt, L. J. Kerkhof, G. Mainelis, D. E. Fennell Proteins Expressed by *Sphingomonas aerolata* in Response to Aerosolization. ASM Microbe 2016, 16-20 June 2016, Boston, MA.
- Fennell, D.E., C. Schneider, H. Zhen, J. Liu, R. Caba, S. Ogungbile, **V. Krumins**, and L. Rodenburg. Anaerobic Dechlorination of Lightly Chlorinated Dibenzo-*p*-Dioxins in Contaminated Sediments. ASM Microbe 2016, 16-20 June 2016, Boston, MA.
- Krumins, V.**, M. Abadjev, S. Boeren, T. Kruse, P. Schaap, H. Smidt, L. J. Kerkhof, G. Mainelis, D. E. Fennell. Proteomic Response of *Sphingomonas aerolata* to Aerosolization and Exposure to a Volatile Substrate in the Airborne State. American Society for Microbiology 114th General Meeting, 17-20 May 2014, Boston.
- Rattana, S., D.E. Fennell, and **V. Krumins** Enrichment and Identification of Ammonia Tolerant Microorganisms from Landfill Leachates. 29th International Conference on Solid Waste Technology and Management. 30 Mar – 2 Apr 2014, Philadelphia, PA.
- Zhen, H., **V. Krumins**, T. Han, D.E. Fennell and G. Mainelis. Measurement of ribosomal RNA in Airborne Escherichia coli: Sample Collection Methods Produce Bias in 16S rRNA-based Analysis Methods. American Association for Aerosol Research 32nd Annual Conference, 30 Sep – 4 Oct 2013, Portland, OR.
- Krumins, V.**, S. Boeren, P. Schaap, H. Smidt, G. Mainelis, L.J. Kerkhof and D.E. Fennell. Proteomic Analysis of Aerosolized *Sphingomonas aerolata*. American Society for Microbiology 113th General Meeting, 18-21 May 2013, Denver, CO.
- Krumins, V.**, G. Mainelis, L.J. Kerkhof, V. Partee, and D.E. Fennell. Characterization of Bioaerosol Diversity and Metabolic Potential. American Society for Microbiology 113th General Meeting, 18-21 May 2013, Denver, CO.
- Krumins, V.**, V. Partee, G. Mainelis, L. Kerkhof and D. Fennell. Metabolic activity and growth potential of airborne microbes. Symposium on Microbiology at Rutgers University: Cultivating Traditions, Current Strength and Future Frontiers January 31st - February 1st, 2013, New Brunswick, NJ, USA.
- Krumins, V.**, G. Mainelis, L. Kerkhof, V. Partee and D. Fennell. Potential for Metabolic Activity of Bioaerosols. American Association for Aerosol Research 31st Annual Conference, 8-12 October 2012, Minneapolis, MN.
- Krumins, V.**, G. Mainelis, L. Kerkhof, V. Partee and D. Fennell. Diversity and Metabolic Potential of Microbes in Air. 14th International Symposium on Microbial Ecology, 19-24 August 2012, Copenhagen, DK.
- Krumins, J., **V. Krumins** and W. van der Putten. Stimulation of Microbial Metabolism by Inefficient Herbivory. 14th International Symposium on Microbial Ecology, 19-24 August 2012, Copenhagen, DK.
- Krumins, V.**, V. Partee, G. Mainelis, L. Kerkhof and D. Fennell. Metabolic Activity and Growth Potential of Airborne Microbes. 112th General Meeting of the American Society for Microbiology, 16-19 June 2012, San Francisco, CA.
- Partee, V., **V. Krumins** and D. Fennell. Characterization of the Bacterial Community in Atmospheric Samples. Annual Biomedical Research Conference for Minority Students. 9-12 November 2011, St. Louis, MO.

Poster Presentations (continued):

- Krumins, V.**, G. Mainelis, L. Kerkhof, V. Partee, and D.E. Fennell. Metabolic Activity of Bacteria in the Airborne State. American Association for Aerosol Research Annual Meeting, 3-7 October 2011, Orlando, FL.
- Krumins, V.**, G. Mainelis, L. Kerkhof, and D.E. Fennell. Metabolic Activity of Airborne Bacteria. American Society for Microbiology General Meeting, 21-24 May 2011, New Orleans, LA.
- Krumins, V.**, M. Gehlen, P. van Cappellen, and P. Regnier. Global carbon and alkalinity fluxes from coastal marine sediments: Budgets and response to changes in C export fluxes and ocean acidification. European Project on Ocean Acidification Annual Meeting, 9-13 May 2011, Brussels, BE.
- Krumins, V.**, G. Mainelis, L. Kerkhof, and D.E. Fennell. Assessing Metabolic Activity of Airborne Bacteria. Symposium on Microbiology at Rutgers University, 3-4 February 2011, New Brunswick, NJ.
- Du, S., J.-W. Park, H. Zhen, L.A. Rodenburg, **V. Krumins**, L.J. Kerkhof, M.M. Häggblom and D.E. Fennell. PCB dechlorination pathways in biostimulated/bioaugmented Anacostia River sediments SERDP Partners in Environmental Technology Technical Symposium & Workshop, 30 November – 2 December 2010, Washington, DC.
- Krumins, J.A., **V. Krumins** and W.H. van der Putten. The Role of Microbial Communities in Soil Food webs. International Symposium for Microbial Ecology. 22-27 August 2010, Seattle, WA.
- Krumins, V.**, P. van Cappellen and P. Regnier. Reactive transport modeling of the impact of ocean acidification on global carbon and nutrient fluxes in coastal marine sediments. European Geosciences Union General Assembly, 2-7 May 2010, Vienna, Austria.
- Park, J.-W., **V. Krumins**, D.E. Fennell, L.J. Kerkhof, L.A. Rodenburg, B.V. Kjellerup, M. Gillespie, K.R. Sowers, and M.M. Häggblom. Anaerobic PCB dechlorination by pentachloronitrobenzene-activated *Dehalococcoides* spp. 109th Ann. Mtg. Amer. Soc. Microbiol. May 17-21, 2009. Philadelphia, PA.
- Wartell, B., **V. Krumins** and D.E. Fennell. Anaerobic digestion of equine waste. Third Annual Mini-Symposium on Microbiology at Rutgers University. 29-30 January 2009, New Brunswick, NJ.
- Krumins, V.**, J.-W. Park, W. Zupko, M.M. Häggblom, L.J. Kerkhof, L. Rodenburg, and D.E. Fennell. Enhancement of reductive dechlorination activity in PCB-contaminated sediment. Third Annual Mini-Symposium on Microbiology at Rutgers University. 29-30 January 2009, New Brunswick, NJ.
- Son, E.-K., **V. Krumins**, B. Schwab, G. Mainelis, and D.E. Fennell. Assessment of metabolic activity and growth capability of bacteria in air. Third Annual Mini-Symposium on Microbiology at Rutgers University. 29-30 January 2009, New Brunswick, NJ.
- Park, J.-W., **V. Krumins**, B.V. Kjellerup, K.M. Gillespie, D.E. Fennell, L.J. Kerkhof, L.A. Rodenburg, K.R. Sowers and M.M. Häggblom. Molecular analysis of anaerobic dechlorination of polychlorinated compounds. Third Annual Mini-Symposium on Microbiology at Rutgers University. 29-30 January 2009, New Brunswick, NJ.
- Park, J.-W., **V. Krumins**, B.V. Kjellerup, K.M. Gillespie, D.E. Fennell, L.J. Kerkhof, L.A. Rodenburg, K.R. Sowers, and M.M. Häggblom. Molecular Analysis of Anaerobic Dechlorination of Polychlorinated Compounds. The Partners in Environmental Technology Technical Symposium & Workshop. December 2-4, 2008. Washington, DC.
- Krumins, V.**, J.-W. Park, M.M. Häggblom, L.J. Kerkhof, L.A. Rodenburg, and D.E. Fennell. Sustained Enhancement of Reductive Dechlorination in PCB- and Pesticide Contaminated Sediments. Third Passaic River Symposium, 16 October 2008, Montclair, NJ.
- Wartell, B. **V. Krumins**, R. George, J. Alt, B. Schwab, K. Kang, and D.E. Fennell. Anaerobic digestion of equine stall waste. Poster Presented at the ASABE Annual International Meeting. June 29 – July 2, 2008, Providence, RI.
- Krumins, V.**, J.-W. Park, L.A. Rodenburg, M.M. Häggblom, L.J. Kerkhof, D.E. Fennell. Biostimulation of Reductive Dechlorination in PCB-Contaminated Sediment. ASM Annual Meeting. 1-5 June 2008. Boston, MA.
- Son, E.-K., **V. Krumins**, G. Mainelis, and D.E. Fennell. Assessment of Metabolic Activity and Growth Capability of Bacteria in Air. ASM Annual Meeting. 1-5 June 2008. Boston, MA.

Poster Presentations (continued):

- Park J.-W., **V. Krumins**, B. V. Kjellerup, D. E. Fennell, L. J. Kerkhof, K. R. Sowers, and M. M. Häggblom. Developing PCR-based molecular methods for quantifying and monitoring dechlorination of polychlorinated compound. ASM Annual Meeting. 1-5 June 2008. Boston, MA.
- Krumins, V.**, J-W. Park, L. J. Kerkhof, L.A. Rodenburg, M. M. Häggblom, D. E. Fennell. Microcosms as a Screening Tool for PCB Bioremediation. Sixth International Conference on Remediation of Chlorinated and Recalcitrant Compounds. 19-22 May 2008. Monterey, CA.
- Wartell, B.; **Krumins, V.**; and Fennell, D. The effect of softwood bedding on anaerobic digestion of equine waste. Poster presentation at the 22nd International Conference on Solid Waste, Journal of Solid Waste Technology and Management. 30 March 30 – 2 April 2008, Philadelphia, PA.
- Krumins, V.**, J.-W. Park, M.M. Häggblom, L.J. Kerkhof, L. Totten, and D.E. Fennell. Stimulation of PCB Dechlorination and Dechlorinators in Sediment Microcosms. Partners in Environmental Technology Technical Symposium & Workshop, SERDP and ESTCP. 4-6 December 2007. Washington, DC.
- Park, J.-W., **V. Krumins**, D.E. Fennell, L.J. Kerkhof, and M.M. Häggblom. Developing PCR-based molecular methods for quantifying and monitoring dechlorination of polychlorinated compounds. Partners in Environmental Technology Technical Symposium & Workshop, SERDP and ESTCP. 4-6 December 2007. Washington, DC.
- Häggblom, M.M., D.E. Fennell, L.J. Kerkhof, L. Totten, K.R. Sowers, H. Liu, F. Liu, Y.B. Ahn, J.W. Park, **V. Krumins**, B.V. Kjellerup, and M. Wright. Quantifying Enhanced Microbial Dehalogenation of Organohalide Mixtures in Contaminated Sediments. Partners in Environmental Technology Technical Symposium & Workshop, SERDP and ESTCP. 4-6 December 2007. Washington, DC.
- Park, J-W., **V. Krumins**, D.E. Fennell, L.J. Kerkhof, and M.M. Häggblom. Developing PCR-based molecular methods for quantifying and monitoring dechlorination of polychlorinated dibenzo-*p*-dioxin. Gordon Research Conference in Applied and Environmental Microbiology, 15-20 July 2007. S. Hadley, MA.
- Krumins, V.**; Liu, F.; and Fennell, D.E. Comparison of dechlorination of polychlorinated dibenzo-*p*-dioxin under conditions designed to enhance bioavailability. 9th International Symposium on *In Situ* and On-Site Bioremediation sponsored by Battelle, 6-10 May 2007, Baltimore.
- Park, J.W., **V. Krumins**, D.E. Fennell, L.J. Kerkhof, and M.M. Häggblom. Developing PCR-based molecular methods for quantifying and monitoring dechlorination of polychlorinated dibenzo-*p*-dioxin. Theobald Smith Society Annual Meeting. New Jersey Branch, American Society for Microbiology. 3 May 2007. New Brunswick, NJ.
- Son, E.K., G. Mainelis, **V. Krumins**, and D.E. Fennell. Is Air an Active Microbial Ecosystem? 4th Annual Microbial Observatories/Microbial Interactions and Processes Principal Investigators Meeting and Workshop. National Science Foundation. 1-3 March 2007. Washington DC.
- George, R., **V. Krumins**, and D.E. Fennell. Bioenergy Production from Methanogenic Anaerobic Digestion of Horse Waste. Microbiology at Rutgers: Cultivating Traditions, Current Strength, and Future Frontiers. 25-26 January 2007. New Brunswick, NJ.
- Fennell, D.E., F. Liu, and **V. Krumins**. Effect of system heterogeneity on dechlorination of polychlorodibenzo-*p*-dioxin. Partners in Environmental Technology Technical Symposium & Workshop sponsored by SERDP and ESTCP. 28-30 November 2006. Washington, DC.
- Häggblom, M.M.; Fennell, D.E.; Kerkhof, L.J.; Totten, L.A.; Sowers, K.R.; Ahn, Y.-B.; Liu, F.; Liu, H.; Park, J.-W.; and **Krumins, V.** Quantifying Enhanced Microbial Dehalogenation of Organohalide Mixtures in Contaminated Sediments. Partners in Environmental Technology Technical Symposium & Workshop sponsored by SERDP and ESTCP. 28-30 Nov 2006. Washington, DC.
- Häggblom, M.M.; Fennell, D.E.; Kerkhof, L.J.; Totten, L.A.; Sowers, K.R.; Ahn, Y.-B.; Liu, F.; Liu, H.; Park, J.W.; and **Krumins, V.** Quantifying Enhanced Microbial Dehalogenation of Organohalide Mixtures in Contaminated Sediments. Poster presented at the 2nd Passaic River Symposium: Progress and Challenges. 13 October 2006, Montclair, NJ.

Poster Presentations (continued):

- Peterson B.V., M.P. Hummerick, M.S. Roberts, **V. Krumins**, A.L. Kish, J.L. Garland, S. Maxwell, and A.L. Mills. Characterization of Crew Refuse Returned from Shuttle Missions with Permanent Gas, Volatile Organic Compound, and microbial analyses. The Second World Space Congress, 34th COSPAR Scientific Assembly, Committee on Space Research. 10-19 October 2002. Houston, TX.
- Hummerick, M.P., **V. Krumins**, A. Kish, L.H. Levine, J.L. Garland, M.S. Roberts and J. Bauer. Temporal Changes in Community Composition and Metabolic Specialization Within a Submerged Membrane Bioreactor Designed for Wastewater Treatment. American Society for Microbiology 102nd Meeting, 19-23 May 2002. Salt Lake City, UT.
- Daumer, K., L. Levine, **V. Krumins**, S. Ripp, and J. Garland. Real-Time Response Characteristics of a Bioluminescent Bioreporter towards Microbial Volatile Organic Contaminants (MVOCs). 12th International Symposium on Bioluminescence & Chemiluminescence. 5-9 April 2002. Cambridge, UK.

Invited Workshops:

- Engineering Strategies for a Sustainable Food Supply Chain. Amer. Inst. of Chemical Engineers, Inst. of Electrical and Electronics Engineers and Amer. Soc. of Civil Engineers ASCE. 16-17 March 2015. Princeton, NJ
- Workshop on Technology Approaches for Current and Future Base Camp Sustainability. US Army Research Office. 12-14 September 2007. Raleigh, NC.

Teaching:

- Rutgers University, Fall 2017: Environmental Literacy (11:375:197)
- Rutgers University, Fall 2017: Numerical Methods in Environmental Science (11:375:303) / Environmental Science Analysis (16:375:501)
- Rutgers University, Spring 2016-2017: Bioenvironmental Engineering Unit Processes Laboratory II (11:117:424)
- Rutgers University, Spring 2016-2017: Physical Principles of Environmental Science (11:375:203)
- Rutgers University, Spring 2014: Special Topics: Applying Environmental Biotechnology and “-omics” Data in Environmental Science and Engineering (11:117:498 / 16:375:625).
- Rutgers University, Fall 2011: Unit Processes in Bioenvironmental Engineering. (11:117:414).
- Rowan University, Spring 2006. Environmental Engineering II: Solid and Hazardous Waste. (CEE.08.312).
- University of Maryland, Spring 2000. Aquacultural Engineering.
- University of Maryland, Fall 1999 Basic Biological Resources Engineering Technology.

Student Mentoring:

- 2017: Kevin Dillon, Oto-Obong Akpan
Rutgers Aresty Fellow: Harold Ofori
Rutgers School of Environmental and Biological Sciences Elizabeth Arthur Reich Scholar: Daniel Sanchez.
- 2016: Kevin Dillon, Rosalina Caba, Evan Lutz
- 2015: Jennifer Mendez, Andrenette Morrison, Yufu Wang.
- 2014: Rutgers Aresty undergraduate summer research program. Mentee: Maytal Merhav.
- 2013: Rutgers Aresty undergraduate summer research program. Mentee: Maksim Abadjev.
Rutgers Byrne Seminar undergraduate researcher: Ashley Sidhu.
Student-to-Professional Internship student: Sabah Mahmud.
- 2011: Rutgers Research in Science and Engineering (RiSE) undergraduate summer research program to advance diversity in science, math, and engineering. Mentee: ValaRae Partee.
- 2007-2008: Mentor of undergraduates in Fennell lab: William Zupko, Jared Brisman, and Bryan Schwab.
- 2000: Kennedy Space Center, Spaceflight and Life Sciences Training Program. Six-week intensive program for undergraduates to learn how to design and conduct biological research and operations in space. Mentee: Cody Nash.

Awards:

Sigma Xi, The Scientific Research Society, 1998.

University of Maryland, College Park, Graduate School Fellow, 1995-1997.

Outstanding Senior Award, Penn State University Department of Agricultural Engineering, 1993.

Alpha Epsilon, The Agricultural Engineering Honor Society, 1992.

Penn State Engineering Society Scholarship, 1989-1993.

Frank W. Peikert Scholarship in Agricultural Engineering, 1989-1993.

Betz Laboratories National Merit Scholar, 1987.

Graduate Student Committee Member:

Staci Capozzi, Ph.D., 2016

Lisa Oberreiter

Zhiyi Song

Abstract and Proposal Reviews

American Society for Microbiology (ASM Microbe 2016), Division Q (Environmental and General Applied Microbiology)

American Society for Microbiology General Meeting (ASM2103), Division Q

Minnesota Sea Grant, 2013.

Manuscript Reviews:

Aerobiologia

Aquacultural Engineering

Atmospheric Environment

Biodegradation

Bioremediation Journal

Bioresource Technology

Environmental Microbiology

Environmental Pollution

Environmental Science and Pollution Research

Environmental Science and Technology

Journal of Environmental Quality

Journal of Hazardous Materials

Land Degradation and Development

Soil Science

Waste Management – **Nominated top reviewer of 2011**

Water Research

Professional Societies:

American Society for Microbiology (ASM)

Association of Environmental Engineering and Science Professors (AEESP)

International Water Association (IWA)

Committees:

- 2013-present Equipment committee, Department of Environmental Sciences, Rutgers University
2016-2017 ad hoc *Environmental Engineering Analytical Tools* course development committee chair, Bioenvironmental Engineering program, Department of Environmental Sciences, Rutgers University.

Advising and Outreach:

- 2016-present Freshman advisor, BioEnvironmental Engineering program, Department of Environmental Sciences, Rutgers University.
2015-present Coordinator and host of BioEnvironmental Engineering departmental tours for Rutgers “Discover Engineering” and Honors Introduction to Engineering programs.