

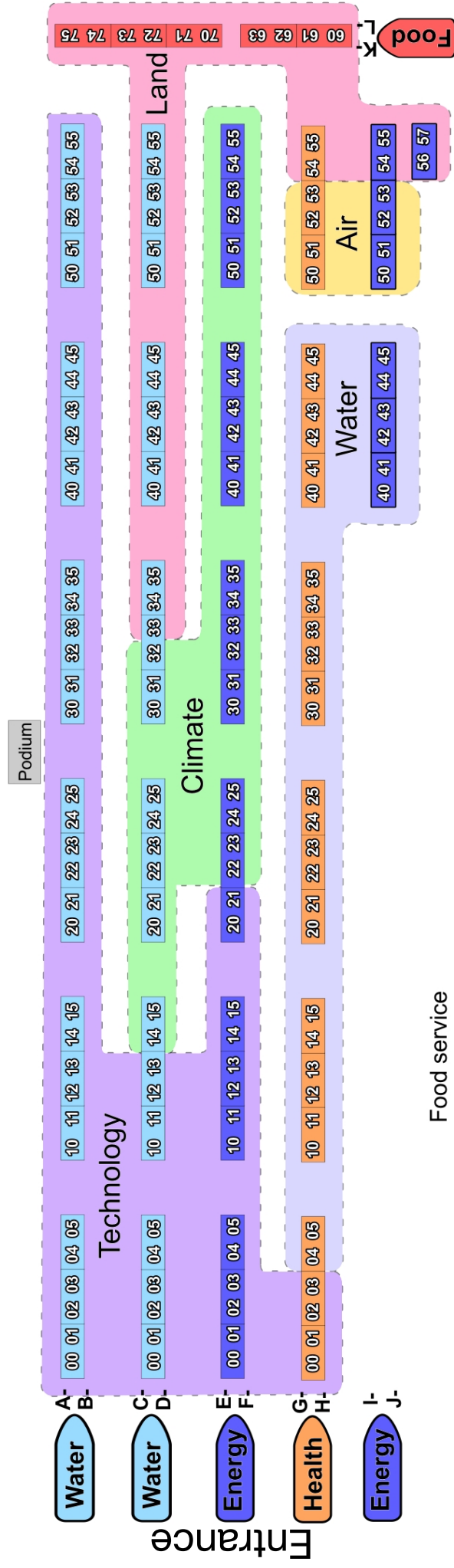
AEESP Research and Education Conference

Poster Presentation Program

June 15th, 2015, 5:30 – 8:30 pm

Yale University, Commons, New Haven, CT

@AEESP2015 for live Tweeting during the poster session!



At the Nexus of WATER and TECHNOLOGY

- A-00 Assessment of Potential Ecological and Health Impact of Coal Ash Spill in Dan River North Carolina | Hu, M.; Fernandez, L.; Larese-Casanova, P.; Wang, A.; Schreiber, M.; Williams, B.; Gu, A.
- A-01 Lessons Learned from Water Supply Contamination Incidents Caused by Chemical Spills and Research Needed | Huang, X.; Casteloes, K.; Kelly, D.; Whelton, A. J.
- A-02 Linking complex organic feedstock characteristics to microbial metabolic activities in anaerobic codigesters | Ohemeng-Ntiemoah, J.; Datta, T.
- A-03 Improved stability of methane-producing anaerobic biological reactors through novel use of ion-exchange fibers | Tian, Y.; Brown, D. G.; SenGupta, A. K.
- A-04 A Copula-based model to identify the parameters of run and tumble bacterial motility | Liang, X.; Lu, N.; Maghrebi, M.; Nguyen, H. T.; Chang, L.; Massoudieh, A.
- A-05 A new framework to model biofilms attached to reactive surfaces | Tang, Y.
- A-10 Genome-Scale Metabolic Reconstruction and Analysis of a Pure-Culture Anaerobic Digester through the Application of OptCom | Kirkendall, T. M.; Chaplen, F. W.R.; Radniecki, T. S.
- A-11 Lab and Field-Scale Validation of TiO₂-NP Based Technology ("LilyPads") to Treat Stormwater | Lopez, D. M.; Radniecki, T. S.
- A-12 Influence of Wastewater Constituents on the Toxicity of Silver Nanoparticles to the Model Ammonia Oxidizing Bacterium, *Nitrosomonas europaea* | Mumper, C. K.; Ostermeyer, A.; Barker, L.; Anderson, J.; Semprini, L.; Radniecki, T. S.
- A-13 Development of Antibiotic Resistance in *Pseudomonas putida* Chronically Exposed to Environmentally Relevant Concentrations of Ciprofloxacin | Sertich Arruda, K. L.; Seto, J.; Rein, M.; Radniecki, T. S.
- A-14 Improving the function of waterless urinals for water conservation and nutrient recovery | Saetta, D.; Boyer, T. H.
- A-15 Probabilistic Framework for Aquatic Invasive Species eDNA Monitoring & Inference | Song, J.; Small, M.
- A-20 Can a More Diverse Polyphosphate Accumulating Organisms Community Improve Functional Stability of the Enhanced Biological Phosphorus Removal Process? | McClellan, G.; Datta, T.
- A-21 Electrocoagulation for the mitigation of estrogenic contaminants | Gorsalitz, E. K.; McNamara, P. J.
- A-22 Optimizing Chemical and Mechanical Properties of Electrospun TiO₂ and Carbon Nanofiber Mats for Removal of Emerging Organic Contaminants | Greenstein, K. E.; Peter, K. T.; Parkin, G. F.; Cwiertny, D. M.
- A-23 Biosolids-derived biochar for the removal of micropollutants from wastewater | Tong, Y.; Mayer, B. K.; McNamara, P. J.
- A-24 Catabolic Biomarkers to Quantitatively and Rapidly Assess the 1,4-Dioxane Biodegradation Activities at Impacted Aquifers | Li, M.; Mathieu, J.; Yang, Y.; Alvarez, P. J. J.
- A-25 Removal of perfluorinated carboxylates from actual wastewater using activated carbons and resins | Deng, S.; Du, Z.; Yu, G.
- A-30 Carbon Nanofiber Nonwovens for Adsorption of Emulsified Oil | Waisi, B. I.; Chwatko, M.; Benes, N.; Nijmijer, A.; McCutcheon, J. R.
- A-31 Degradation of taste and odor compounds GSM and MIB using TiO₂-UV reactor: Application for Recirculating Aquaculture Systems. | Rodriguez-Gonzalez, L. C.; Pettit, S. L.; Zhao, W.; Michaels, J. T.; Alcantar, N. A.; Ergas, S. J.
- A-32 Biocatalytic Removal of Chlorine Oxyanions: Identifying a Robust Chlorite Dismutase | Mobilia, K. C.; Hutchison, J. M.; Zilles, J. L.
- A-33 Performance of Graphene Oxide Membranes in Removing Pharmaceuticals and Personal Care Products (PPCPs) | Armstrong, D. L.; Hu, M.; Torrents, A.; Mi, B.
- A-34 Development of Palladium-Resin Composites for Catalytic Hydrodechlorination of 4-Chlorophenol – Impact of Support Structures | Jadbabaei, N.; Shuai, D.; Zhang, H.
- A-35 A 21st Century Perspective on Calcium Carbonate Formation in Water Systems | Richards, C. S.; Wang, F.; Becker, W. C.; Edwards, M. A.
- A-40 Photodegradation of pharmaceutical compounds in rivers receiving treated wastewater | Bodhipaksha, L.; Sharpless, C.; MacKay, A.
- A-41 Application of Quantitative Toxicogenomics Assays for Waste Water Quality and Risk Monitoring | Gou, N.; Gu, A.
- A-42 Mixture Toxicity Prediction via a Quantitative Toxicogenomics-based Approach | Gou, N.; Gu, A.
- A-43 Application of Auto Regressive Moving Average Model to Represent High Dimensional Toxicogenomic Data in Improving Clustering Performance | Rahman, S. M.; Gu, A. Z.
- A-44 Biological mechanism of the toxicity of haloacetonitrile disinfection byproducts | Komaki, Y.; Marinas, B. J.; Plewa, M. J.
- A-45 Effect of Sulfidation on the Stability and Mobility of Nanoscale Zero Valent Iron Particles in Saturated Porous Media | Basnet, M.; Rajajayavel, S. R. C.; Gershanov, A.; Tufenkji, N.; Ghoshal, S.
- A-50 Persulfate activation by graphene oxides for pollutant degradation | Chen, H.; Carroll, K. C.
- A-51 CAREER: Corrosion Resistance of Nano-meter Graphene Coatings in Aggressive Microbial Environment | Gadhamshetty, V.
- A-52 Aqueous Stability of Reduced Graphene Oxide: Effects of Surface Chemistry, Morphology and Humic Acid | Jiang, Y.; Raliya, R.; Fortner, J. D.; Biswas, P.
- B-00 Development of a Predictive Model for Performance of Turbulent Hydraulic Flocculation | Pennock, W.
- B-01 Effect of Humic Acid on the Oxygen Reduction Reaction Catalyzed by Activated Carbon | Yang, W.; Watson, V. J.; Logan, B. E.
- B-02 Technology Improvement of Ion Exchange Drinking Water Technology by Dynamic Process Model Integration with Life Cycle Assessment and Optimization of Sustainability Using a Genetic Algorithm | Amini, A.; Payne, K.; Zhang, J.; Zhang, Q.
- B-03 Autogenous repair of iron pipe leaks in potable water systems-water chemistry impacts | Tang, M.; Edwards, M.
- B-04 Fouling of Microfiltration and Ultrafiltration Membranes by Flowback and Produced Water from Marcellus Shale Gas Play | Xiong, B.; Kumar, M.; Zydney, A.
- B-05 Omniphobic Membrane for Robust Membrane Distillation | Lin, S.; Nejadi, S.; Boo, C.; Hu, Y.; Osuji, C. O.; Elimelech, M.
- B-10 Saving pumping energy by using different flow rates of high and low concentration solutions in reverse electrodialysis cells | Zhu, X.; He, W.; Logan, B. E.
- B-11 The existence of water-filled voids in the polyamide active layers of thin-film composite (TFC) membranes challenges their current understanding as dense films | Lin, L.; Coronell, O.; Lopez, R.; Ramon, G.
- B-12 Functional reconstitution and characterization of artificial proton channels | Shen, Y.; Licsandru, E.; Barboiu, M.; Kumar, M.
- B-13 Effective Silver Nanoparticles Loading Method for Developing Antifouling Thin Film Composite Forward Osmosis Membranes with Silver Decorated Graphene Oxide Nanosheets | Soroush, A.; Rahaman, S.
- B-14 Au Nanostar-Modified Reverse Osmosis Membranes for Photothermal Functionality Towards Reduced Mineral Scaling, Organic Fouling, and Biofouling | Ray, J.; Tadeipalli, S.; Nergiz, S.; Liu, K.; You, L.; Tang, Y.; Singamaneni, S.; Jun, Y.
- B-15 Fullerene-Based Multifunctional Antimicrobial Composites via Block Copolymer Templates | Moor, K. J.; Osuji, C. O.; Kim, J.
- B-20 Biofouling mechanisms of regular and surface-modified UF membranes in MBR | Li, M.; Badireddy, A. R.; Lu, H.
- B-21 Understanding organic fouling in membrane capacitive deionization systems to enhance water reclamation sustainability | Southworth, L.; Cusick, R.
- B-22 Membrane-Biofilm Reactors (Mbrf) For Water Treatment: Overcoming Gas Back Diffusion Effects | Pérez, P.; Aybar, M.; Esteban, A. L.; Picioreanu, C.; Nerenberg, R.
- B-23 Links between ammonia oxidizers and micropollutant biotransformation in activated sludge microbial communities | Men, Y.; Han, P.; Helbling, D. E.; Johnson, D. R.; Wagner, M.; Fenner, K.
- B-24 Facile and Sustainable Production of Catalysts for Water Purification: Electrospinning of Pd-Carbon Nanofiber Catalysts for Waterborne Contaminant Reduction | Ye, T.; Shuai, D.
- B-25 Development Of Ceint Nanoinformatics Knowledge Commons | Tian, Y.; Wiesner, M. R.; Hendren, C. O.; Karcher, S.; Lowry, G. V.; VanBriessen, J.
- B-30 Reaction of carbon nanotubes with chemical disinfectants: Byproduct formation and implications for nanotube environmental fate and transport | Verdugo, E. M.; Nelson, K. J.; Valentine, R. L.; Cwiertny, D. M.
- B-31 Shift in antibiotic resistance gene profiles associated with nanoparticles in nitrifying sequencing batch reactors | Metch, J.; Ma, Y.; Vikesland, P.; Yang, Y.; Zhang, T.; Pruden, A.
- B-32 Label-less High Sensitivity Detection and Three-Dimensional Characterization of Gold Nanoparticles Interaction in Water via Confocal Surface Enhanced Raman Spectroscopy | Chan, M. Y.; Leng, W.; Vikesland, P. J.
- B-33 Nanomaterials and the Env. | Ma, X.
- B-34 Role of Material Properties on the Fate of Graphene-based Nanomaterials in the Aquatic Environment | Chowdhury, I.; Mansukhani, N. D.; Guiney, L. M.; Hersam, M. C.; Bouchard, D.
- B-35 Transformation and Hazard Potential of Copper Particles in a Septic System Using a Zebrafish High-Throughput Screening Assay to Monitor the Effluent | Taylor, A. L.; Walker, S. L.
- B-40 Synthesis and quantitative characterization of non-conductive colloidal particle multilayers | Weroński, P.; Batys, P.; Nosek, M.; Skoczek, M.
- B-41 Antimicrobial Properties of Graphene Oxide: Why Size Matters | Perreault, F.; de Faria, A. F.; Nejadi, S.; Elimelech, M.
- B-42 Formation of Silver Nanoparticles in Visible Light-Illuminated Waters: Mechanism and Possible Impacts on the Persistence of AgNPs and Bacterial Lysis | Badireddy, A. R.; Budarz, J. F.; Marinakos, S. M.; Chellam, S.; Wiesner, M. R.
- B-43 Higher Sensitivity of Nitrifying Bacteria in Activated Sludge to Silver Nanoparticles than to Silver Ions: Wastewater treatment and Nitrogen Cycling Implications | Yang, Y.; Alvarez, P.
- B-44 Understanding and Forecasting Reactive Transport Processes at the Nexus of Water and Energy | Li, L.; Bao, C.; Brunet, J.-P. L.; Wang, L.; Salehikhoo, F.; Skocik, M.
- B-45 Optimization Of Size Distribution In Aerobic Granular Sludge Process Via Partition Sludge Discharge | Zhu, L.; Xu, X.; Zhou, J.
- B-50 Assessment and evaluation of synergistic effects of nanomaterials on aquatic species in heterogeneous systems | Joo, S. H.
- B-51 Integrated approaches toward sludge reduction and reuse | Joo, S. H.; Monaco, F. D.; Antmann, E.; Chorath, P.
- B-52 Monitoring the release of and treatment evaluation of siloxanes | Joo, S. H.; Gassie, L.; Urbinati, L.; Rinaldi, V.

- A-53 Evaluation of ICP-MS techniques for quantification of quantum dots and dissolved metal cations in water: Size exclusion chromatography verses single particle analysis | Larese-Casanova, P.; Payday, P.
- A-54 Impact of nanoparticle size, shape, and crystallinity on Selenate and Selenite adsorption | Lounsbury, A.; Billmyer, N.; Yamani, J.; Larese-Casanova, P.; Peak, D.; Zimmerman, J.
- A-55 TBD | Getzinger, G.
- C-00 Stochastic calibration and uncertainty analysis of activated sludge models: A Case Study on the Blue Plains Wastewater Treatment Plant, Washington, DC | Alikhani, J.; Al Omari, A.; Murthy, S.; Takacs, I.; Massoudieh, A.
- C-01 Accelerating anaerobic digestion of wastewater sludge using microbial electrolysis cell reactions | Asztalos, J.; Kim, Y.
- C-02 TOC, COD and AOX Removal Comparisons between Effluent From Anaerobic Bioreactor and Effluent From Cyclic Ozonation-Biotreatment in Treatment of An Industrial Wastewater Containing Chlorophenolic Contaminants | Hajiali, A.
- C-03 Modeling Sunlight Disinfection in a Novel, Open-Water, Unit-Process Wastewater Treatment Wetland | Silverman, A. I.; Nguyen, M. T.; Nelson, K. L.
- C-04 Impact of Advanced Oxidation Processes on the Composition and Biodegradability of Soluble Organic Nutrients in Wastewater Effluents | Tooker, N.; Drinkwater, M.; Horton, J.; Sangrey, K.; Gu, A. Z.
- C-05 Elemental Sulfur (So) as a Supplemental Electron Donor for Wastewater Denitrification | Wang, Y.; Bott, C.; Nerenberg, R.
- C-10 In vivo and in vitro inactivation of filamentous bacteria associated with activated sludge by nano-scale zero valent iron (NZVI) | Zhang, C.; Cui, C.; Hu, Z.
- C-11 Performance of flocculation/sedimentation/fluidized bed water treatment process with increased energy dissipation rates | Garland, C.; Weber-Shirk, M.; Lion, L.
- C-12 How to train your anaerobic digester: Increasing methane yield, resistance to inhibition, and monitoring microbial community shifts | Wang, L.; Hossen, E. H.; Aziz, T. N.; Ducoste, J.; de los Reyes III, F. L.
- C-13 Sustainable swine waste management by combining anaerobic digestion and algal wastewater treatment systems | Wang, M.; Yang, H.; Lee, E.; Zhang, Q.; Sarina, E. J.
- B-53 Beneficial reuse of treated municipal wastewater and flue gas carbon dioxide via combined ion exchange | de Torres, T.; Wu, C. Y.; Boyer, T.
- B-54 Predicting Nitrous Oxide (N₂O) Emissions From Biofilm Systems | Sabba, F.; Picioreanu, C.; Pérez, J.; Nerenberg, R.
- B-55 The use of genome-scale metabolic modeling for the development of bioenvironmental processes. | Frigon, D.; Tajparast, M.
- D-00 Field Performance of a Pilot Anaerobic Membrane Bioreactor (AnMBR) Treating Septic Tank Wastewater: Reliability and Resilience Assessments | Bair, R.; Ozcan, O.; Dick, G.; Calabria, J.; Woodham, M.; Yeh, D.
- D-01 Wastewater nutrient recovery using anaerobic membrane bioreactor (AnMBR) permeate for hydroponic fertigation | Calabria, J.; Dick, G.; Bair, R.; Ozcan, O.; Yeh, D.
- D-02 Analysis of long-term diurnal water use patterns using smart water metering | Joustra, C.; Stanek, P.; Hernandez, P.; Yeh, D.
- D-03 Evaluating the Emerging Technologies used to Treat Ballast Waters: The Impact of Chemical Disinfection Strategies on Disinfection By-Product Formation in Saline Waters | Shah, A.; Liu, Z.; Salhi, E.; Hoefler, T.; Werschkun, B.; von Gunten, U.
- D-04 Aerobic biodegradation of polyfluoroalkyl phosphates (PAPs) by pure and mixed cultures | Lewis, M.; Kim, M. H.; Liu, J.; Wang, N.; Chu, K.
- D-05 Phosphonium Polymer Coagulant for Prevention of Nitrosamine Formation | Zeng, T.; Pignatello, J.; Mitch, W.
- D-10 The critical role of elemental speciation in sewage sludge management: Insight from spectroscopic studies of the thermal treatments of sewage sludge | Huang, R.; Tang, Y.
- D-11 Parameter Estimation of Activated Sludge Models using Inverse Modeling | Stewart, H.; Al-Omari, A.; DeClippeleir, H.; Murthy, S.; Massoudieh, A.
- D-12 Treatment performance of a full-scale novel hybrid constructed wetland receiving domestic wastewater | Zhai, J.; Xiao, H.; Li, X.; Qi, Y.; Liao, K.
- D-13 The Critical Roles of Organics on Surfaces: A surface chemistry approach for understanding interfacial processes at different nexuses | Lau, B.; Ikuma, K.; Chen, Y.; Huang, R.; Nguyen, M.

At the Nexus of WATER and CLIMATE

- C-14 Advancing Energy Neutral Wastewater Treatment: Removing Nitrogen and Dissolved Methane from Dilute Anaerobic Effluents | Vela, J. D.; Martin, K. J.; McFarland, A.; Beaton, N.; Stadler, L. B.; Bott, C. B.; Raskin, L.; Skerlos, S. J.; Love, N. G.
- C-15 Enhanced anti-Stokes emission and photocatalytic activity in a dual-sensitizer triplet-triplet annihilation upconversion system | Hagstrom, A.; Deng, F.; Kim, H.; Li, C.; Kim, J.
- C-20 Extreme Event Impacts on Drinking Water Supply Reservoir Quality | Jeznach, L.; Hagemann, M.; Tobiasson, J.; Park, M.
- C-21 Water Supply for Los Angeles, California: Sources, Stressors, and Sustainability | Ashoori, N.; Dzombak, D.; Small, M.
- C-22 Modelling of simultaneous methane and ammonium removal in a one-stage aerobic granular sludge reactor | Castro-Barros, C.; Ho, L.; Winkler, M.-K. H.; Volcke, E.I.P.
- C-23 The effects of climate, sediment quality, and land use on internal phosphorus cycling in a Maine lake | Doolittle, H.; Amirbahman, A.; Norton, S.
- C-24 Technology Limit of Enhanced Biological Phosphorus Removal Process for Sustainable Phosphorus Removal and Recovery | Li, Y.; Onnis-Hayden, A.; Cope, H.; Elick, A.; Gu, A. Z.
- C-25 Sewershed-Scale Nutrient Management | Orner, K.; Cunningham, D. J.; Ozcan, O.; Yeh, D. D.; Saetta, D.; Boyer, T.
- C-30 Applying climate data under uncertainty to the design of green infrastructure | Cook, L. M.; Samaras, C.
- C-31 Green Infrastructure Valuation: Saving water pollutants and energy | Gible, M.; Limmer, M.; Bartels, K.; Burken, J.
- C-32 Phosphate removal from wastewater by electrochemical precipitation as hydroxyapatite | Jasper, J. T.; Cid, C. A.; Hoffmann, M. R.
- D-14 Resiliency of short-cut nitrogen removal against external perturbations | Wu, S.; Weissbrodt, D.; Morgenroth, E.; Goel, R.
- D-15 Phage Metagenomics reveals the role of bacteriophages in contributing to the bacterial diversity in natural systems | Motlagh, A.; Bhattacharjee, A.; Goel, R.
- D-20 Energy Savings in Activated Sludge Processes through sludge minimization at source | Hunag, P.; Goel, R.
- D-21 Self-sustained Bioelectrochemical Systems for Metal and Nutrient Recovery in Wastewater | Li, Y.; Li, B.
- D-22 Harnessing Solar Energy for Water Disinfection: The UV-C versus ROS Debate | Loeb, S.; Hofmann, R.; Andrews, S.; Kim, J.
- D-23 Design for Autonomous Net-Zero Water Buildings: Field performance and Recommendations | Wu, T.; Englehardt, J.
- D-24 Life Cycle Environmental and Cost Assessment of Multiple Water-Saving Technologies for Three Urban U.S. Cities | Garvey, E.; Mo, W.
- D-25 Graphene Oxide Barrier Blocking Fouling for Pressure Retarded Osmosis | Hu, M.; Zheng, S.; Mi, B.
- D-30 A material's perspective on conducting flowable electrodes for water and energy technologies | Hatzell, K. B.; Gogotsi, Y.
- D-31 Potential For Reducing Thermolectric Water Consumption Through Flue Gas Moisture Capture At Coal- And Natural Gas- Fired Plants | Sears, K.; Samaras, C.; Lowry, G.
- D-32 Advancement of anaerobic membrane bioreactor (AnMBR) technology via sustainable innovation pathways | Shoener, B. D.

At the Nexus of WATER and LAND

- C-33 Black carbon facilitated in-situ surface hydrolysis of organic contaminants | Bridge, J.; Xu, W.
- C-34 Influence of Aggregate in Pervious Concrete on the Removal Rates of Lead from Aqueous Solution | Holmes, R.; Keven, J.; Hart, M.
- C-35 Impact of sediment on agricultural fate and bioavailability to aquatic organisms | Zhang, Y.; Krysl, R. G.; Ali, J. M.; Snow, D. D.; Kolok, A. S.; Bartelt-Hunt, S. L.
- C-40 Biodegradation of 1,4-Dioxane in Co-Contaminant Mixtures | Zhang, S.; Pornwongthong, P.; Gedalanga, P.; Mahendra, S.
- C-41 Biotransformation and Microbial Toxicity of 2,4-Dinitroanisole (DNAN) | Olivares, C. I.; Abrell, L.; Chorover, J.; Sierra-Alvarez, R.; Field, J. A.
- C-42 Identifying the functional relationship(s) between species abundance and chemical pollutants of emerging concern in aquatic ecosystems | Bampoh, D. K.
- C-43 The Behavior of Sulfate-Containing Wastes in Landfills: How Regulations has Created Challenges for the Disposal of Solids | Sun, W.; Barlaz, M. A.
- C-44 Evaluation of PCR Primer Set on Apparent Diversity of Soil Ciliates | Chau, J. F.; Brown, S.; Habtom, E.
- C-45 Heteroaggregation between Cerium Oxide Nanoparticles and Nanoparticles of Pyrolyzed Biomass | Yi, P.; Pignatello, J. J.
- C-50 Long-term impacts of sewer installation on in-stream nitrate concentration in two urban watersheds | Hagemann, M.; Park, M.
- C-51 Effective Depth Controls the Nitrate Removal Rates in a Water Supply Reservoir with a High Nitrate Load | Cubas, F. J.; Holbrook, D.; Novak, J. T.; Godrej, A. N.; Grizzard, T. J.
- D-33 Manganese Oxide Geomedia and its Regeneration for Passive Treatment of Urban Stormwater Contaminants | Charbonnet, J.; Grebel, J.; Sedlak, D.
- D-34 A new framework for forward and inverse modeling of stormwater LIDs | Maghrebi, M.; Niazi, M.; Massoudieh, A.
- D-35 Riverbank Filtration in Hilly Regions: Prospects and Concerns | Ronghang, M.; Gupta, A.; Kumar, P.; Mehrotra, I.
- D-40 Studies on residence time distribution of constructed wetland with non-steady flow | Xiao, H.; Zhai, J.; Liu, D.; Zhang, L.
- D-41 Identifying affordable rain gauges for Green Stormwater Infrastructure research | Kalra, G.; Ochoa, A.; Yerik, W.; Montalto, F. A.
- D-42 Engaging freshmen in green stormwater infrastructure research | Kalra, G.; Ochoa, A.; Yerik, W.; Montalto, F. A.
- D-43 Impacts of Installing Green Infrastructure on Stormwater Runoff Quality | Johnson, A.; Davidson, C.
- D-44 A comprehensive sustainability assessment of roadway drainage systems | Byrne, D. M.; Grabowski, M. K.; Schmidt, A. R.; Guest, J. S.
- D-45 Tailoring Biochar by Post-pyrolysis Air Oxidation for Enhancing Its Adsorption of Ionizable Organic Compounds | Xiao, F.; Pignatello, J. J.
- D-50 Biofilters for removal of fecal bacteria in stormwater | Mohanty, S.; Boehm, A.
- D-51 Iron dissolution from asbestos: Implications for asbestos toxicity and mobility | Mohanty, S.; Willenbring, J.

- C-52 Numerical Analysis of Mussel Influence on Nutrient Dynamics | Langenfeld, K.; Hauser, L.; Just, C.
- C-53 Phytomonitoring: Measuring Chlorinated Solvents in Trees Over 4 Years | Limmer, M.; Holmes, A.; Wilson, J.; Burken, J.
- C-54 Will Sustainable Sanitation be Adopted? | Wood, A.; Blackhurst, M.; Lawler, D.
- C-55 Assessing Methane Fluxes and Microbial Communities Associated with Septic Leach Field Soils in Central New York | Fernandez-Baca, C. P.; Truhlar, A. M.; Walter, M. T.; Rahm, B. G.; Richardson, R. E.
- D-52 Improving Disinfection and Energy Efficiency of Ozone Contactors via Baffle Design | Zhang, J.; Zhang, Q.
- D-53 Sorption of Organic Cations: A Comparison of Isotherm Non-Linearity from Batch and Column Experiments | Jolin, W.; MacKay, A.; Vasudevan, D.
- D-54 Landscape Position Influences Soil Microbial Community Composition and Function via Redistribution of Soil Water across a Forested Mountain Watershed | Du, Z.; Riveros-Iregui, D. A.; Jones, R. T.; McDermott, T. R.; Dore, J. E.; McGlynn, B. L.; Emanuel, R. E.; Li, X.
- D-55 Modeling complexity in water distribution systems | Li, K.; Zeng, F.; Li, X.

At the Nexus of ENERGY and TECHNOLOGY

- E-00 Ammonia mitigation by microalgae: effect of carbon dioxide | Kang, J.; Wen, Z.
- E-01 Wastewater treatment by microalgal biofilm: phosphorus removal kinetics | Kang, J.; Wen, Z.
- E-02 Ammonia Inhibition in Four Oleaginous Microalgae | Gutierrez, J.; Peccia, J.
- E-03 Using CO₂ to maintain the abundance of the oleaginous microalgae *Scenedesmus dimorphus* in mixed-culture photobioreactors | Giannetto, M.; Retotar, A.; Rismani-Yazdi, H.; Peccia, J.
- E-04 A Novel Photobioreactor for Studying Nitrogen Utilization and Transformation by a Mixed Community of Algae and Bacteria Grown at High Cell Densities | Price, J. R.; Shieh, W. K.; Sales, C. M.
- E-05 Development of a kinetic model for microalgae growth in wastewater | Lee, E.; Zhang, Q.
- E-10 Simultaneous bio-remediation of leachate and production of algae for biofuel | Sniffen, K.; Yezuita, B.; Sales, C.; Olson, M.
- E-11 Reusing Treated Municipal Wastewater for Fermentation of Ethanol Production | Zhao, R.; Zhou, J.; Trupia, S.
- E-12 Design of 18S Primers for Improved Determination of Mixed Phototrophic Communities in Wastewater Treatment | Bradley, I. M.; Pinto, A. J.; Guest, J. S.
- E-13 Electrode-respiring biofilms with flexible metabolic options controlled by electrode potential and nitrate availability | Kashima, H.; Regan, J. M.
- E-14 The ecology of granular biofilms containing microalgae and bacteria used for treating wastewater | Stauch-White, K.; Kuo-Dahab, C.; Milferstedt, K.; Hamelin, J.; Park, C.; Butler, C.
- E-15 Water Quality Probes Provide In-situ Monitoring of Biochemical Reactions in an Engineered Bioreactor | Black, E.
- E-20 A Comparison of Algal Growth and Nutrient Removal Capacity between Algal CSTR and Algal MBR under the Same Light Condition | Tang, T.; Hu, Z.
- E-21 Silver Toxicity Tests Using Microbial Electrolysis Cells | Parr, J.; Kim, Y.
- F-00 Thermally conductive plastics for increased energy efficiency | Bruce, A. N.; Avins, H.; Hua, I.; Howarter, J. A.
- F-01 Photocatalytic synthesis of hydrogen peroxide using sub-bandgap photons via triplet-triplet annihilation upconversion | Kwon, O. S.; Kim, J.
- F-02 Modeling of Biofilm Deformation and Detachment Considering Viscoelastic Material Properties | Aybar, M.; Nerenberg, R.
- F-03 Biofilm Morphology and Ecological Diversity in an Air-base Membrane Biofilm Reactor (MBfR) | Aybar, M.; Nerenberg, R.
- F-04 The Role of Biofilm on Disinfection By-Product Formation and Decay in the Water Distribution System | Seo, Y.; Wang, Z.; Khan, Y.
- F-05 Applying Insights from Biofilm Biology to Environmental Engineering | Ng, C. K.; Ding, Y.; Wu, Y.; Mohanty, A.; Mukherjee, M.; Cao, B.
- F-10 Biofilm kinetic modeling and inhibition of ammonia oxidizing bacteria | Lauchnor, E.; Semprini, L.; Wood, B.
- F-11 Can Biofilms Restore After Exposure to Disinfectants? Mechanical and Structural Property Variation of Simulated Drinking Water biofilms during Continuous Chlorination | Shen, Y.; Huang, C.; Espinosa-Marzal, R.; Liu, W.; Nguyen, T. H.
- F-12 Bacterial Populations Associated with Polyphosphate Accumulation in Benthic Biofilms | Regan, J. M.; Locke, N.; Saia, S.; Walter, T.; Taylor, S.; Carrick, H.; Buda, A.
- F-13 Competition for Electron Donors in Anode-Respiring Biofilms: A Battle for Acetate between Exoelectrogens and Denitrifiers | Srinivasan, V.; Butler, C.
- F-14 Role of D-tyrosine concentration in bacterial biofilm inhibition and potential applications in membrane biofouling control | Yu, C.; Li, X.; Wu, J.; Li, M.; Zhang, N.; Alvarez, P. J. J.; Wen, D.; Liu, C.; Li, Q.
- F-15 TBD | Yan, H.; Chuang, C.; Zhugayevych, A.; Tretiak, S.; Dahlquist, F. W.; Bazan, G. C.
- F-20 Performance of Denitrifying Biofilters Under Intermittent Conditions | Lynn, T.; Yeh, D.; Ergas, S.

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- E-22 Managing Uncertainty in Greenhouse Gas Emissions from Biofuel Feedstock Production | Gao, S.; Gurian, P. L.; Adler, P. R.; Gurung, R.; Ogle, S. M.; Speers, C. M.; Del Grosso, S. J.; Spatarì, S.
- E-23 Life Cycle Environmental and Energetic Tradeoffs of Pyrolysis Bio-oil Upgrading | Spatarì, S.; Mannoh, I.; Bjornebo, L.; Boateng, A.; Macken, N.; Mullen, C. A.; Wheeler, M. C.
- E-24 Applications of polymer-coated magnetic nanoparticles for algal biomass harvesting | Zhang, W.; Ge, S.; Agbakpe, M.
- E-25 Feasibility of selective fermentation of the non-lipid fractions of *Scenedesmus* biomass coupled with biohydrogenation to produce saturated fatty acids | Lai, Y.; Aguinaga, A.; Parameswaran, P.; Rittmann, B. E.
- E-30 Longitudinal study of waste grease compositions for the production of biodiesel | Hums, M. E.; Cairncross, R. A.; Olson, M. S.; Spatarì, S.
- E-31 Toward More Robust Biomethane Processes: Patterns of Population Competition in Engineered Methanogenic Microbial Communities | Chen, S.; He, Q.
- E-32 Where should we grow switchgrass? – A normative scenario to minimize the water quality impacts from the Bioenergy Mandate | Keerthi, S.; Miller, S.
- E-33 Bioelectrocatalyzed reduction of CO₂ to higher alcohols and acids using mixed cultures of acetogens and acetate-utilizing *Clostridium* strains | Padhiary, M.; Walczak, K.; Goyal, N.; Sun, Z.; Zhou, Z.
- E-34 Correlation between trace levels of antibiotics and phenotypic antibiotic resistance in urban environmental samples | Yi, X.; Lim, C.; Ong, E. J. L.; Wang, M.; Zhou, Z.
- E-35 Systems-level Characterization of Microalgae: Applications for Food:Energy:Water Nexus | Ghafari, M.; Match, E.; Camgoz, E.; Pfeifer, B.; Atilla-Gokcumen, G. E.; Haznedaroglu, B. Z.
- E-40 Sustainable design of an algae multiproduct biorefinery | Barr, W. J.; Landis, A. E.
- E-41 Engineer Robust Whole Cell Biocatalyst for Harnessing Lignocellulosic Wastes to Produce Renewable Biofuels | Wei, N.; Chen, Y.; Cate, J.; Jin, Y.
- E-42 Moving beyond carbon - Accounting for the contribution of ecosystem goods and services for microalgal biofuels | Zaimes, G. G.; Khanna, V.
- E-43 Measuring Marginal Emissions from Electricity Demand under a Changing Climate | Vora, N.; Samaras, C.
- E-44 A Heat Vulnerability Index and Adaptation Solutions for Pittsburgh, Pennsylvania | Bradford, K.; Abrahams, L.; Hegglin, M.; Klima, K.
- E-45 Educating the Aware, Informed and Action-Oriented Sustainable Citizen | Schroer, A. L.; Just, C. L.; Just, L.; Lowman, H. E.
- E-50 SUCCEED: Summer Center for Climate, Energy, and Environmental Decision-making | Posen, I. D.; Markolf, S. A.; Faria, F.; Klima, K.; Azevedo, I. L.
- F-22 Tunable Anion Exchange to Treat Marcellus Flowback Wastewater Using Impaired Acid Mine Drainage (AMD) | SenGupta, A.; Li, J.; German, M.
- F-23 Environmental Challenges and Opportunities for Unconventional Oil and Gas Industry | Vidic, R. D.
- F-24 Uncertainties in Life Cycle Greenhouse Gas Emissions from Advanced Biomass Feedstock Logistics Supply Chains in Kansas | Nguyen, L.; Caffery, K. G.; Searcy, E. M.; Spatarì, S.
- F-25 Life Cycle Assessment of Tourism Components | Santello, K. N.; Mo, W.
- F-30 Sustainable water management in the context of hydraulic fracturing | Ellis, B. R.; Demond, A. H.; Jayawan, I. S.
- F-31 Geochemical alterations of carbonate fractures and the environmental implications | Deng, H.; Fitts, J. P.; Peters, C. A.
- F-32 How leakage risk in geologic CO₂ storage might impact climate change mitigation and policy choices | Deng, H.; Bielicki, J. M.; Oppenheimer, M.; Fitts, J. P.; Peters, C. A.
- F-33 Managing Wastewaters from Shale Gas Operations- An industrial ecology approach | Tavakkoli, S.; Vidic, R. D.; Khanna, V.
- F-34 Metal removal and biodiesel production by halophilic microalgae cultivated in hydraulic fracturing flowback water | Ranjbar, S.; Aken, B. V.
- F-35 Metagenomic signatures in unconventional oil and gas impacted surface water | Eramo, A.; Reyes, H. D.; Akob, D.; Cozzarelli, I. M.; Mumford, A.; Fahrenfeld, N.
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- F-43 Mechanically strong aerogel fabrics for oil capture and recovery | Karatum, O.; Steiner, S. A.; Plata, D. L.
- F-44 Multi-Body Coalescence of Particle-Stabilized Droplets in Pickering Emulsions | Wu, T.; Wang, H.; Liu, F.; Burns, P.; Na, C.
- F-45 Removal of Radium from Shale Gas Wastewater by Cation Exchange Resin | Bi, Y.; Zhang, H.; Hayes, K. F.; Ellis, B. R.
- F-50 Proactive Development and Evaluation of Sustainable Solid Waste Systems under Various Future Energy Scenarios | Levis, J. W.; Barlaz, M. A.; Ranjithan, S. R.; DeCarolis, J. F.

E-51	The Implications of Climate Change and Population Growth on Climate Action Planning at the Metropolitan Level Markolf, S. A.; Matthews, H. S.; Azevedo, I. L.; Hendrickson, C.	F-51	A Systematic Evaluation of Alternatives for Industrial, Commercial, and Institutional Food Waste Management Strategies in the U.S. Hodge, K. L.; Levis, J. W.; DeCarolis, J. F.; Barlaz, M. A.
E-52	Business motivations for implementation of facility-level sustainability improvements Kuppig, V.; Williams, R.; Dvorak, B.	F-52	A life-cycle model for prospective analysis of algae-based biofuels Levis, J. W.; Karam, A.; McMillan, C.; Ranjithan, S. R.
E-53	Improving Soil Microbial Diversity with Compost and the Impacts to Climate Change Viau, E.	F-53	Quantification of the thermal properties of a large extensive green roof in Syracuse, NY Squier, M.; Davidson, C.
E-54	Life cycle environmental and cost analysis of renewable diesel production Larnaudie, V.; Bule, M.; San, K.; Vadlani, P. V.; Mosby, J.; Elwell, J.; Elangovan, S.; Karanjikar, M.; Sorunmu, Y.; Spatari, S.	F-54	Building A Material Flow Network of Aluminum in the U.S. Economy Chen, W.; Graedel, T.
E-55	Urban Environmental Benefits of Ride Sharing Using Autonomous Vehicles Cai, H.; Xu, M.	F-55	Technological And Life Cycle Assessment Of Organic Waste Management Odour Control Technologies Bindra, N.; Dubey, B.; Dutta, A.

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G-00	Rapid Destruction of Ricin By Nanosecond Pulsed Electric Fields Wei, K.; Li, W.; Gao, S.; Wang, J.; Zhang, J.; Yao, M.	H-00	Using Hybrid Ion Exchanger with Nanoscale Zirconium Oxide Particles to Mitigate Fluoride Crisis in Africa and Asia: From Laboratory to Field Applications Li, J.; German, M.; SenGupta, A.
G-01	Examining the Domino Effect of Building Material Selection Burke, R.; Landis, A. E.; Parrish, K.	H-01	Investigation of Bovine Serum Albumin (BSA) attachment onto Self-Assembled Monolayers (SAMs) using QCM-D/SE Phan, H. T.; Rodenhausen, K. B.; Schubert, M.; Bartz, J. C.; Bartlett-Hunt, S.
G-02	Measuring Cost and Environmental Impact of E-waste Take-back Legislation Jaunich, M. K.; Kemahlioglu-Ziya, E.; Moheb-Alizadeh, H.; Ranjithan, S. R.; DeCarolis, J.	H-02	Removal of trace heavy metals from drinking water by electrocoagulation Heffron, J.; Mayer, B.
G-03	Phosphorylated lignin and tannic acid as alternatives to brominated flame retardants in printed circuit boards Mendis, G. P.; Weiss, S. G.; Hua, I.; Youngblood, J. P.; Howarter, J. A.	H-03	Quantifying rotavirus removal in biosand filters using an integrated cell culture and RT-qPCR assay Wang, H.; Liu, W.; Nguyen, T. H.

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G-04	The Excrevator: a machine for hygienic pit latrine emptying in developing countries Rogers, T.; Beckwith, W.; Sisco, T.; Holm, R.; de los Reyes III, F.	H-04	The effect of biofilm roughness and hydrodynamic condition in particle attachment with COMSOL Huang, C.
G-05	New generation microbial fuel cell (MFC) biosensor and all-in-one microelectrode array (AIO-MEA) for real-time in situ profiling of environmental shocks Xu, Z.; Liu, B.; Dong, Q.; Lei, Y.; Li, B.	H-05	Characterizing cellular and genetic responses leading to the onset of reduced antibiotic susceptibility in the early stage biofilm infections Lu, N.; Li, X.; Chopp, D.; Parsek, M.; Packman, A.
G-10	Treatability of Cyanotoxins (microcystins and cylindrospermopsin) using UV-based processes He, X.; de la Cruz, A. A.; Dionysiou, D. D.	H-10	Adsorption of arsenic(III) and arsenic(V) by iron/copper bimetallic nanoparticles Babae, Y.; Mulligan, C. N.; Rahaman, M. S.
G-11	Manganese Oxide and Disinfection By-Products Bazilio, A.; Tobiason, J.	H-11	Modified porous ceramics: a low-cost water treatment technology for fluorosis mitigation in developing countries Nijhawan, A.; Butler, E.; Sabatini, D.
G-12	Development of an Age Dependent Dose Response Model for Western, Eastern and Venezuelan Encephalitis Viruses. Layman, A. F.; Weir, M. H.	H-12	Quantifying how water, sanitation, and hygiene practices affect child health in urban slum communities of Nairobi, Kenya Bauza, V.; Ocharo, R.; Guest, J. S.
G-13	Examination of reactions in viral RNA during UV disinfection with RT-qPCR and mass spectrometry Qiao, Z.; Wigginton, K.	H-13	Community-based Participatory Research on Function, Utility, and Longevity of Household Filters to Improve Health of Local Residents at Lake Atitlán, Guatemala Roegner, R. F.; Ochaeta, G.; Pfothenhaer, B.; Rejmankova, E.
G-14	Bacteriophage-assisted ARG Transfer Within Drinking Water Distribution Systems Jeyaratnam, J.; Wigginton, K.	H-14	Fluoride removal and interaction with natural organic matter in drinking water using alum coagulation Herrboldt, J. P.; Gee, I. M.; Bartolo, M. J.; Lawler, D. F.; Katz, L. E.
G-15	Methods for the Detection of Infective Enveloped Viruses in Wastewater Ye, Y.; Ellenberg, M.; Wigginton, K. R.	H-15	Development of a 2D Simulation Based Method for Dose Response Model Optimization for Uncertain Pathogens Weir, M. H.
G-20	Associate Professor Deng, Y.; Huang, X.	H-20	Photocatalytic reduction of oxo-anions in water using nano-sized titanium dioxide Marks, R.; Yang, T.; Doudrick, K.; Westerhoff, P.
G-21	Re-evaluate Bromate Formation during Ferrate(VI) Oxidation of Bromide in Water Deng, Y.; Huang, X.	H-21	Fabrication of a novel forward osmosis membrane with Jin, L.; Mi, B.
G-22	Ferrate(VI) Decay and Natural Organic Matter(NOM) Degradation during Potable Water Treatment Deng, Y.; Song, Y.; Jung, C.	H-22	Understanding the Impact of Graphene Oxide Binding Density on Membrane Performance Tousley, M. E.; de Faria, A. F.; Osuji, C. O.; Elimelech, M.
G-23	Characterization of UV-Quenching Dissolved Organic Matters (DOM) in Landfill Leachate Deng, Y.; Jung, C.; Zhao, R.; Torrens, K.	H-23	Contaminant Cycling in a Hybrid Forward Osmosis-Direct Contact Membrane Distillation Sewer Mining Waste to Resource System Villanueva, J. L.
G-24	Lead (Pb) Contamination of Self-Supply Groundwater Systems in Coastal Madagascar Akers, D. B.; MacCarthy, M. F.; Cunningham, J. A.; Annis, J.; Mihelcic, J. R.	H-24	Acid/Base Treatment to Improve the Performance of Polyelectrolyte Membranes in Forward Osmosis Process Kang, Y.; Lee, M. J.; Mi, B.
G-25	Prioritizing Causal Factors of Environmental and Demographic Health Issues within Complex Communities Voth-Gaeddert, L. E.; Oerther, D. B.	H-25	Removal of common drinking water contaminants using potassium-form cation exchange resins Foster, J.; Hu, Y.; Boyer, T.
G-30	Using fluorescence to characterize trihalomethane precursors in Florida's surface waters Vincent, L.; Smith, C.; Duranceau, S.; Boyer, T.	H-30	Removal of humic and tannic acids from potential drinking water sources by combined coagulation and adsorption using activated biochar Jung, C.; Yoon, Y.
G-31	Application of Ab initio Quantum Mechanical Calculations for Discovery of New Fate of Transformation Products in Aqueous Phase Advanced Oxidation Processes Minakata, D.; Kamath, D.; Rouleau, M.	H-31	Competitive adsorption of selected non-steroidal anti-inflammatory drugs on activated biochars: Experimental and molecular modeling study Jung, C.; Boatenga, L.; Flora, J.; Deng, Y.; Yoon, Y.
G-32	Evaluation of a Hybrid Ion Exchange-Catalyst Treatment Technology for Nitrate Removal from Drinking Water Bergquist, A. M.; Choe, J. K.; Strathmann, T. J.; Werth, C. J.	H-32	Energy-neutral water reuse treatment potential: Modeling and comparing nonpotable reuse treatment options to maximize resource recovery from wastewater Cook, S.; Kumar, P.
G-33	Evaluation of Ferrate for Drinking Water Treatment Goodwill, J.; Jiang, Y.; Tobiason, J.; Reckhow, D.	H-33	Interplay of water chemistry and disinfection in regrowth of opportunistic pathogens in simulated reclaimed water distribution systems Zhu, N.; Dayton, T.; Pruden, A.; Edwards, M.
G-34	Nexus of water, health and technology: Addressing fluorosis problems by developing efficient and sustainable aluminum hydroxide amended molecular sieves to remove fluoride from drinking-water Du, J.; Yami, T. L.; Sabatini, D. A.; Butler, E. C.	H-34	Disinfection of Legionella pneumonia with ozone produced from a microchannel plasma ozone generator Dong, S.; Nguyen, T. H.
G-35	Water-Health-Technology Nexus: Chemically Activated Cow Bone for Increased Fluoride Removal in the Context of Life Cycle Assessment of Fluoride Adsorbents Yami, T. L.; Du, J.; Butler, E. C.; Sabatini, D. A.	H-35	Controlling Nitrosamine Carcinogens in Recycled Wastewater with Ultraviolet Light and Preformed Monochloramine McCurry, D. L.; Mitch, W. A.
G-40	Haloacetonitrile and N-haloacetamide formation from chloramine disinfection of drinking waters Kimura, S. Y.; Komaki, Y.; Vu, T. N.; Richardson, S. D.; Plewa, M. J.; Mariñas, B. J.	H-40	Scale up of Membrane Distillation Apparatus for Direct Potable Water Reuse Murphy, J.
G-41	Development of UV-based advanced disinfection processes for inactivation of E. coli, bacteriophage MS2 and Bacillus spores in different water matrices Sun, P.; Tyree, C.; Huang, C.	H-41	Development of process model for integrated ion exchange treatment and regeneration Hu, Y.; Zhang, Q.; Boyer, T. H.
G-42	Adsorption of perfluoroalkyl substances, including a fluorinated alternative, by powdered activated carbon Knappe, D.; Dudley, L.; Sun, M.; Arevalo, E.; Lindstrom, A.; Strynar, M.	H-42	Nucleic acid recovery from Mycobacterium spp. in drinking water Kotlarz, N.; Haig, S.; Yonts, J.; LiPuma, J.; Raskin, L.
G-43	Effect of Water Heater Temperature Setting and Water Use on the Occurrence of Opportunistic Pathogens in Premise Plumbing Rhoads, W. J.; Ji, P.; Pruden, A.; Edwards, M. A.	H-43	Effects of hypolimnetic oxygen addition on mercury bioaccumulation in Twin Lakes, Washington, USA Beutel, M.
G-44	Effect of Temperature on the Building Plumbing Microbiome Ji, P.; Rhoads, W.; Edwards, M.; Pruden, A.	H-44	Similarities between free chlorine inactivated adenovirus and bacteriophage PR772 inactivation kinetics and viral replication cycles Gall, A. M.; Shisler, J. L.; Mariñas, B. J.

- G-45 Chemical leaching from potable water piping: LCA | Eckelman, M.; Whelton, A. J.; Stenson, A. H-45 Green Rust: A Nanoscale Adsorber, Transformer, and Transporter of Environmental Contaminants | Johnson, C. A.; Freyer, G.; Fabisch, M.; Murayama, M.; Küsel, K.; Hochella Jr., M. F.

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- G-50 VOC Transport Modeling in Soil Vapors due to wind effect | Shirazi, E.; Pennell, K. G. H-50 Real-time Characterization of Bioaerosol Collection Efficiencies of SKC BioSampler Using UV-APS | Zheng, Y.; Wu, C.; Yao, M.
- G-51 Phytoscreening for Vapor Intrusion Potential: Comparing Effects of Tree Diameter and Type | Wilson, J.; Limmer, M.; Burken, J. H-51 Multiplexing Detection of 13 Pathogens from Human Exhaled Breath and Throat Swabs by Loop Mediated Isothermal Amplification (LAMP) | Zheng, Y.; Wu, C.; Yao, M.
- G-52 Evaluation of Intake Fraction from Different Point Sources | Parvez, F.; Lamancusa, C.; Wagstrom, K. H-52 Bioaerosol Emissions and Detection of Airborne Antibiotic Resistance Genes from a Wastewater Treatment Plant | Li, J.; Zhou, L.; Zhang, X.; Xu, C.; Dong, L.; Yao, M.
- G-53 Assessing the Spatial Trends within the Inhalation Intake Fraction | Lamancusa, C.; Parvez, F.; Wagstrom, K. H-53 Exposure Level Assessment of particulate and gaseous pollutants emitted from Binder Jetting 3D Printers | Afshar-Mohajer, N.; Wu, C.; Rajon, D.; Huang, Y.

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- G-55 Enhancing Soil Microbial Iron Reduction for Efficient Pathogen Removal in Water Reclamation | Yan, T.; Kim, L. H-55 The Partitioning of 2,4-dinitroanisole Within Hybrid Poplar and Willow Trees | Schroer, H. W.; Just, C. L.

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- I-41 Energy recovery from primary sludge using microbial electrochemical cells (MXCs) | Ki, D.; Parameswaran, P.; Popat, S. C.; Rittmann, B. E.; Torres, C. I. J-41 Exploring the Water, Energy, and Technology Nexus in Osmotically Driven Membrane Processes for Seawater Desalination | Achilli, A.; Jones, L.
- I-42 Enrichment of electrothrophic microorganisms for enhanced electrosynthesis of acetate and methane in microbial electrolysis cells | Yilmazel, Y. D.; Logan, B. E. J-42 Contribution of pseudocapacitance of poly(3,4-ethylenedioxythiophene) to the performance of captive deionization | Shang, X.; Cusick, R.
- I-43 Use of Forward Osmosis in Treatment of Hyper-Saline Produced Water | Al-Furaiji, M.; Chowdhury, M.; Arena, J. T.; Benes, N.; McCutcheon, J. R. J-43 Analytical and hydrometallurgical separations of rare earth elements from hypersaline brines | Noack, C. W.; Dzombak, D. A.; Karamalidis, A. K.
- I-44 Voltage-Current Relationship in the Novel Electrodialysis Metathesis (EDM) Technology for Desalination and Concentrate Management | Ajedegba, J. O.; Camacho, L. M. J-44 Silane cross-linked graphene oxide membrane with improved performance in forward osmosis | Zheng, S.; Mi, B.
- I-45 Influence of polyamide membrane surface chemistry on mineral scaling: a QCM and AFM study | Shaffer, D. L.; Tousley, M. E.; Elimelech, M. J-45 Nanofiltration and its role in large scale desalination | Omar, Y.; Labban, R.; Lienhard V, J. H.

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- I-50 Surveying emissions of gas-phase organic compounds from unconventional oil & gas operations | Charan, S.; Sheu, R.; Gilman, J.; Gouw, J. d.; Warneke, C.; Lerner, B.; Gentner, D. R. J-50 A Reevaluation of the Benefits of the NOx Budget Trading Program | Chen, X.; Lamancusa, C.; Parvez, F.; Wagstrom, K.
- I-51 Service Learning in an Advanced Air Pollution Course: Lessons Learned | Wagstrom, K. M. J-51 Power System Optimization to Determine Air Emissions Impacts of Renewable Portfolio Standards | Johnson, J.; Novacheck, J.
- I-52 Hydrophobic Polymers as Adsorbents and NO Oxidation Catalysts | Ghafari, M.; Atkinson, J. D. J-52 Potential impacts of pollution from developing countries on a global scale | Husserl, J.
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- I-54 Assessment of Gas Emission from Landfill and its Impact on Global Warming | Pandey, N.; Nema, A. K. J-54 Addressing uncertainty for the sustainability of compostable biopolymers | Hottle, T. A.; Bilec, M. M.; Landis, A. E.
- I-55 The reduction of pathogen indicator organisms during biosolids storage: The role of moisture content and freeze-thaw cycles | Meingast, C. L.; Becker, J. G.; Seagren, E. A. J-55 Life Cycle Environmental Impacts of Perovskite Solar Cells | Celik, I.
- I-56 Life cycle assessment of green waste in Fresno, California | Dangi, M. B.; Robbins, C. D.; Moreno, Jr., S.; Mey, E. J.; Hoke, N. N.; Perez, R. A.; Herrera, R.; Campos, L. J-56 Soil Pyrolysis to Remediate Heavy Hydrocarbons: Effect on TPH and Soil Characteristics | Vidonish, J.; Zygourakis, K.; Masiello, C. A.; Mathieu, J.; Alvarez, P. J.
- I-57 Bio versus fossil oil: Dryland biofuel feedstock production transportation infrastructure challenges | Stone, J.; Sieverding, H.; Gibbons, W. J-57 Waste High Sulfur Fly Ash Valorization in Soil Solidification | Akgian, J.; Hart, M.

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- K-60 Financial Sustainability of Urban Agriculture | Sorunmu, Y.; Lindy, R.; Gurian, P.; Hunold, C.; Spatari, S. L-60 Water and Energy use and Wastewater Production within Beef Packing Plants | Ziara, R.; Li, S.; Subbiah, D. J.; Dvorak, B.
- K-61 Food-Energy-Water Nexus: Development of Magnetically Recyclable Photocatalytic Nanocomposites for Nitrogen Capture in Agricultural Runoff | Chen, G.; Chen, M.; Wang, W.; Yin, Y.; Liu, H. L-61 Step Feed Anaerobic Fermentation- A Novel Alternate for Food Waste Processing | Fanyin-Martin, A.; Taher, E.; Chandran, K.
- K-62 Microbial communities in urine separated for nutrient recovery | Lahr, R.; Goetsch, H.; Noe-Hays, A.; Aga, D.; Bott, C.; Foxman, B.; Jimenez, J.; Love, N.; Luo, T.; Mullen, R.; Nace, K.; Ramadugu, K.; Wigginton, K. L-62 Microbial Communities and Bt Maize: Understanding the Role Transgenic Crops May Play in the Rise of Antibiotic Resistance | Gardner, C. M.; Gunsch, C. K.
- K-63 Ecological Sanitation in Uganda: Ammonia Treatment of Collected Feces Using Stored Urine | Trimmer, J.; Nakyanjo, N.; Ssekubugu, R.; Sklar, M.; Ergas, S. L-63 Improving biological nitrogen fixation by understanding the effects of biochar on plant-microbe signaling | Clancy, T. M.; Thies, J. E.; Lehmann, J.
- K-70 Non-targeted analysis of pharmaceuticals in urine-derived fertilizers | Goetsch, H.; Lahr, R.; Mullen, R.; Noe-Hays, A.; Aga, D.; Bott, C.; Jimenez, J.; Love, N.; Nace, K.; Wigginton, K. L-70 Understanding the role of desalination in agriculture for the central valley of California | Welle, P.; Mauter, M.
- K-71 Student support and perceptions of urine source separation: Impact of environmental orientation, subjective norm, and behavioral control | Ishii, S. L-71 Recovery of Ammonia as Solid Fertilizer from a Wastewater Treatment Plant effluent | Teniola, A.; Pinion, T.; Camacho, L. M.
- K-72 Life cycle assessment of pharmaceuticals removal in source separated urine using anion exchange treatment | Landry, K. A.; Boyer, T. H. L-72 A Systematic Evaluation of Alternatives for Industrial, Commercial, and Institutional Food Waste Management Strategies in the U.S. | Hodge, K. L.; Levis, J. W.; Barlaz, M. A.
- K-73 Separation of pharmaceuticals and nutrients in source separated urine using biochar | Solanki, A.; Boyer, D. T. L-73 Sustainable Food Systems for Better Food, Environment and Livelihoods in Maine | MacRae, J. D.
- K-74 Influence of epicuticular physicochemical properties on porcine rotavirus attachment to salad vegetables, and its removal by food-industrially used sanitizers | Lu, L.; Ku, K.; Fuzawa, M.; Palma-Salgado, S.
- K-75 An in vitro study of the effect of fresh tea against rotavirus infections | Fuzawa, M.; Nguyen, T. H.