AMERICAN CHEMICAL SOCIETY

DIVISION OF ENVIRONMENTAL CHEMISTRY

CALL FOR PAPERS

255th ACS National Meeting
New Orleans, Louisiana – March 18-22, 2018

Dear Colleagues,
Join us to share your research progress and results in the Division of Environmental Chemistry program at the 255th ACS National Meeting in New Orleans, LA, March 18-22, 2018.

ENVR Spring Program Chair:
Sherine Obare, Ph.D. – Department of Chemistry, Western Michigan University, Kalamazoo, MI;
Tel: (269) 387-8283; Email: sherine.obare@wmich.edu

Abstract Submission Deadline: **October 9, 2017**. Submit abstracts to the Division of Environmental Chemistry at http://MAPS.ACS.org. Abstracts accepted for oral or poster presentation in each symposium unless otherwise noted. Please contact organizers for symposium details.

Thematic Symposia: "The Food, Energy, Water Nexus"

Advances & Challenges in Policy Making & Public Understanding at the FEW Nexus

This symposium will bring together environmental and political scientists, engineers, climatologists, decision makers, governmental regulators, and policy advocates to share new research on policy development and deployment, public understanding, and science communication at the FEW nexus.
Organizers: Jillian Goldfarb, *JillianLGoldfarb@gmail.com*; Douglas Kriner, *dougk@alum.mit.edu*; Satinder Kaur Brar, *satinder.brar@ete.inrs.ca*; Azadeh Kermanshahi Pour, *azadeh.kermanshahipour@dal.ca*; Elise Fox, *Elise.Fox@srnl.doe.gov*
Cosponsors: ACS Committee on Environmental Improvement (CEI), ACS Division of Energy & Fuels (ENFL), Association of Environmental Engineering & Science Professors (AEESP)

Contaminants in Water Sources Impacted by FEW Systems: Emerging Challenges & Opportunities

The type of original research presented will include the domains described and will focus on discovery and characterization of emerging chemical contaminant issues and innovative solutions. This session will hold interest to those working in water quality sustainability, emerging contaminant sources/effects, and novel solutions in agroecosystems and urban waters.
Organizers: Gregory LeFevre, *gregory-lefevre@uiowa.edu*; Craig Just, *craig-just@uiowa.edu*; David Cwiertny, *david-cwiertny@uiowa.edu*

Emerging Environmental Biotechnologies for Energy-Efficient Pollutant Control, Remediation, & Resource Recovery

Engineered bioprocesses for pollutant control, remediation, and resource recovery are designed to harness the unique biochemical traits and catalytic systems from environmental microbes. Recent progress in various

molecular and systems biology tools have enabled the discovery of novel microbial processes that could lead to improved biotechnologies for environmental applications. This symposium will focus on the development and application of unconventional environmental biotechnologies to address problems at the nexus of FEW systems. In addition, emphasis will also be given to providing attendees of this symposium a better mechanistic understanding of the unique biochemical and metabolic characteristics of these unconventional environmental biotechnologies. The topics include (but are not limited to): Nutrient (N & P) removal or recovery, emerging contaminant treatment, energy recovery, greenhouse gas management and valuable compound synthesis using microbiological or bioelectrochemical systems.
Organizers: Shan Yi, *shan_yi@berkeley.edu*; Yujie Men, *ymen2@illinois.edu*; Christopher Sales, *chris.sales@drexel.edu*; Wei-Qin Zhuang, *wq.zhuang@auckland.ac.nz*; Xinwei Mao, *Xinwei.Mao@stonybrook.edu*
Cosponsors: ACS Committee on Environmental Improvement (CEI)

FEWSTERN: US-China Food-Energy-Water Systems: Transdisciplinary Environmental Research Network

FEWSTERN was established to identify and address critical needs for maintaining and improving food and water quality, as well as energy security, through the identification of critical, transdisciplinary research and technology needs, international team-building efforts, transformative research and technology innovation, and effective transitioning of research needs into practice across international borders. This represents not only a new US-China collaborative research partnership but also new cooperative enterprise between NSF and China NSF.
Organizers: Gary Sayler, *Sayler@utk.edu*; Frank Loeffler, *Frank.Loeffler@utk.edu*; Jie Zhuang, *jzhuang@utk.edu*; William F. Brown, *wbrown15@utk.edu*

High Resolution Information for the Sustainable Management of FEW Systems

Progress in high resolution system characterization, real time data interpretation, and responsive system design necessary for decision making in these complex systems have been enabled by innovation in computing, sensing, responsive materials, and adaptive process control. We convene a symposium to encourage discussion around emerging methods and remaining research gaps for sustainable design and management of the world's complex FEW systems. Topics of discussion may include: Innovation in materials and methods for data acquisition and processing, chemistries and process designs that fundamentally restructure traditional FEW tradeoffs; and evaluation methodologies for assessing sustainability at scales relevant to FEW decision making.
Organizers: Desiree Plata, *Desiree.plata@yale.edu*; Meagan Mauter, *mauter@cmu.edu*

Novel Concepts in the Role of Chemistry in the FEW Nexus

This symposium welcomes research papers that describe novel concepts and role of chemistry in the context of the FEW nexus.
Organizers: Indranil Chowdhury, *indranil.chowdhury@wsu.edu*; Dionysios D. Dionysiou, *dionysios.d.dionysiou@uc.edu*; Soryong Chae, *chaesg@ucmail.uc.edu*; Satinder Ahuja, *sutahuja@atmc.net*

Nutrient Management & Water/Wastewater Treatment through Biomass Production in Aquatic & Terrestrial Ecosystems

Nutrient pollution is a critical issue at the FEW nexus. This symposium will focus on the utilization of novel processes to address nutrient pollution, agricultural wastes and wastewater treatment to produce biomass, nutraceuticals and other outputs to create a more sustainable production system.
Organizers: Alyssa McQuilling, *amcquilling@southernresearch.org*; William Grieco, *wgrieco@southernresearch.org*

Science & its Perception: Climate Change, Nicotine, Pollution & Other Emerging Topics in the Crosshairs
The purpose of this interdisciplinary symposium is to bring together scholars and policy makers as well as physical and social scientists to discuss challenges and share solutions related to emerging science topics that have recently been under attack in the public sphere. These topics include but are not limited to climate change, nicotine, agriculture, pollution, and food additives. Presentations may also incorporate issues at the FEW nexus and their impact on our planet.
Organizers: Sherine O. Obare, *sherine.obare@wmich.edu*; Elke Schoffers, *elke.schoffers@wmich.edu*
Cosponsors: ACS Committee on Environmental Improvement (CEI)

Future Innovations in Environmental Chemistry

Accurate Mass/High Resolution Mass Spectrometry for Environmental Monitoring & Remediation
This session will focus on the use of high resolution mass spectrometry and its application for analysis of occurrence and fate of organic contaminants in the environment. The enormous amounts of data produced by these techniques necessitate improved schemes for prioritizing compounds for further investigation.
Organizers: Tarun Anumol, *tarun.anumol@agilent.com*; Ruth Marfil-Vega, r*uth.marfilvega@amwater.com*; Tom Young, *tyoung@ucdavis.edu*; Christian Zwiener, *christian.zwiener@uni.tuebingen.de*

Advances & Applications in Water Sensing Technologies for Drinking Water & Agri-tech Research
This symposium will present applications and the state of the art of "real time" water quality and quantity sensors. For example, applications include sensors to monitor fresh or saline water to be used for drinking, industry, irrigation, and shellfishing; monitoring of algal bloom and nutrients in estuaries, oceans or freshwater lakes. Applications may be designed to monitor regulatory or nonregulatory parameters. Presentations may include devices that have competed in the NOAA challenge for measuring nutrients, or that may be deployed by USGS to monitor stream quality. For example, the "real time" sensors at USGS gaging station 01389005 at Two Bridges on the Passaic River in New Jersey provide data that can be viewed at all times on the internet by operating water and wastewater agencies, by regulatory and nongovernmental agencies and research institutions. A roundtable discussion will explore applications and visualization techniques to present "big data" from advanced monitoring systems.
Organizers: Paul Schorr, *schorr@njit.edu*; Marie Romero Gonzalez, *m.e.romero.gonzalez@sheffield.ac.uk*; Wen Zhang, *Wen.zhang2@njit.edu*

Advances in the Transformations, Implications, & Metrology of Carbonaceous Nanomaterials in the Environment
Carbonaceous nanomaterials such as carbon nanotubes, fullerenes, nanocellulose, and graphene-family nanomaterials (GFNs) possess unique thermal, mechanical, electrical, and optical properties. Carbonaceous nanomaterials are increasingly finding current and potential use in applications involving composite materials, filtration membranes, adsorbents, coatings, optoelectronics, *etc*. Several studies have been conducted to understand the fate and transport, transformations, interactions, and effects of these novel materials upon release into different environmental compartments. The goal of this session is to disseminate information on recent advances in these research areas, and create a platform for identifying related important research questions that are still yet to be answered. The topics that would be covered in this session include detection and

quantification of carbonaceous nanomaterials in complex environmental matrices, methods for extracting carbonaceous nanomaterials from environmental matrices, carbonaceous nanomaterial release studies from polymer nanocomposites, chemical and biological transformation of carbonaceous nanomaterials in the environment, carbonaceous nanomaterial-bio interactions (cellular to organismal level), and life-cycle analyses of carbonaceous nanomaterials.
Organizers: Adeyemi Adeleye, *Adeleye.adeyemi@epa.gov*; David Goodwin, PhD, *David.goodwin@nist.gov*

Advances in Understanding of Sorptive & Reactive Properties of Pyrogenic Carbonaceous Matter (PCM) in the Environment

This symposium will focus on recent advances in our understanding of adsorption and chemical/biological reactions mediated by pyrogenic carbonaceous matter (PCM) and the links between these processes in environmental contexts. In particular, we are interested in research advances from the following areas: 1) adsorptive processes of ionizable compounds and emerging contaminants by PCM; 2) chemical and biological reactions mediated by PCM; 3) generation of reactive oxygen species (ROS) by PCM; and 4) the impact of PCM on the biogeochemical cycle of C and minerals.
Organizers: Wenqing Xi, *wenqing.xu@villanova.edu*; Joseph Pignatello, *Joseph.Pignatello@ct.gov*; William Mitch, *wamitch@stanford.edu*

Agro-Environmental & Energy Applications of Biochar/Hydrochar

Various biochars/hydrochars made from both dry and wet pyrolysis of plant-based biomass and animal manures have shown remarkable potential in remediating contaminated soil, reducing nutrients leaching from soil, storing energy, and removing various environmental pollutants from water and air. The proposed symposium will provide a platform for researchers from diverse disciplines ranging from chemists, material and chemical engineers, to agricultural, energy, and soil scientists to present and discuss recent discoveries and development in agro-environmental and energy applications of biochar/hydrochar technology driven by both fundamental research and applied technology. Companies in biochar/hydrochar production/application, waste and wastewater treatment as well as those in the agricultural, environmental, and energy industries with feasibility studies or full-scale technological applications are also invited to present their experiences.
Organizers: Kyoung S. Ro, *Kyoung.Ro@ars.usda.gov*; Nicole D. Berge, *Berge@engr.sc.edu*; Changyoon Jeong, *CJeong@agcenter.lsu.edu*

Antibiotics & Antimicrobial Resistance – Developing Solutions to Address the Connectivity between Air, Food, Water & Soil

Antimicrobial resistance is an emerging global threat that does not respect international borders. The movement of antibiotic resistant bacteria (ARB) and antibiotic resistance genes (ARGs) between air, water, soil, and food is becoming increasingly well documented in the scientific literature. In addition, the factors that affect ARB and ARG dissemination (e.g., water and air quality, antibiotic fluxes, urbanization, sanitation practices) in these and other environmental matrices are just now beginning to be more fully understood. In this symposium, we will bring together experts in antimicrobial resistance, the detection of antimicrobial agents in environmental samples, the fate of ARBs and ARGs in the environment, treatment strategies to reduce antibiotic loadings, and treatment approaches to remove resistant organisms and resistance genes.
Organizers: Peter Vikesland, *pvikes@vt.edu*; Amy Pruden, *apruden@vt.edu*; Xiangdong Li, *xiang-dong.li@polyu.edu.hk*; Diana Aga, *dianaaga@buffalo.edu*
Cosponsor: Association of Environmental Engineering & Science Professors (AEESP)

Approaches to fill data gaps for chemical sources of risk
This session invites papers that present novel processes for filling gaps in information that is necessary for chemical risk prioritization. The session organizers also encourage papers that deal with making these data publicly accessible.
Organizers: Chantel Nicolas, *cnicolas@scitovation.com*; Katherine Phillips, *Phillips.katherine@epa.gov*

Aquatic Photochemistry
Aquatic photochemical transformations are important in sunlit surface waters and engineered systems using UV irradiation. Understanding the roles of photochemistry in these systems will provide important insight into the fate of chemical and biological species in the environment. We invite submissions exploring the roles of light in the photochemical transformation of natural and anthropogenic compounds, as well as interactions of light with organic matter, biomolecules, minerals, and microorganisms.
Organizers: Kristopher McNeill, *kristopher.mcneill@env.ethz.ch*; William Arnold, *arnol032@umn.edu*; Sarah Pati, *spati@umn.edu*

Chemistry of drinking water distribution systems & infrastructure
Understanding the chemistry of water infrastructure is imperative to the control of water quality and the delivery of reliable water supplies. This symposium will cover recent advances in topics including but not limited to: chemistry that controls the fate and transformation of metals and metalloids in water distribution systems; corrosion process; redox and surface chemistry of stormwater management systems; biofilms in water infrastructure; biogeochemistry of water reuse and groundwater recharge.
Organizers: Haizhou Liu, *haizhou@engr.ucr.edu*; Yandi Hu, *yhu12@Central.UH.EDU*; Daniel Giammar, *giammar@wustl.edu*

Current State of Environmental Contaminantion Research – Theory & Experiment
This symposium will bring theoreticians and experimentalists working in these research areas related to environmental contamination, renewable energy, and remediation with the objective of facilitating a more profound collaborative research environment in order to tackle these issues.
Organizers: Manoj Shukla, *Manoj.K.Shukla@usace.army.mil*; Satinder Ahuja, *sutahuja@atmc.net*; Glen Jenness, *Glen.R.Jenness@usace.army.mil*; Harley McAlexander, *Harley.R.McAlexander@usace.army.mil*
Cosponsors: ACS Committee on Environmental Improvement (CEI)

Evolving Chemical Hazard Evaluation Strategies to Address Compliance under the New Toxic Substances Control Act (TSCA)
Regulatory agencies have begun to encourage alternatives to animal testing to assess chemical hazards. This symposium will highlight regulatory toxicity testing requirements with a specific focus on the 2016 update to the Toxic Substances Control Act (TSCA). It will showcase non-animal hazard evaluation strategies such as read-across, high throughput assays, and quantitative structural-activity relationships (QSAR).
Organizers: James Rice, *jrice@gradientcorp.com*; Thomas Lewandowski, *tlewandowski@gradientcorp.com*

From Sewage to Sustainable Energy: Potential Pollution Issues from Production & Application Pathways
This symposium is organized in cooperation with the Division of Chemistry and the Environment of EuCheMS (European Association for Chemical and Molecular Sciences). The symposium will provide a platform for scientific discussion on issues related to pollution (identification, remediation, prevention and regulation) in the context of

bioenergy production and waste handling aiming. Requirements for avoiding release of hazardous chemicals during production and waste handling need implementation in the production of currently developed bioeconomy strategies.
Organizers: Roland Kallenborn, *roland.kallenborn@nmbu.no;* Alba Torrents, *alba@umd.edu*; Walter Giger, *giger@giger-research.ch*; Soryong (Ryan) Chae, *chaesg@ucmail.uc.edu*
Cosponsor*:* European Chemical Sciences (EuCheMS)

Green Chemistry & the Environment
Chemical processes that utilize 'green' principles are essential toward ensuring a sustainable environment. The field of green chemistry has impacted several areas and has lead to advances in chemical design, catalyst fabrication, waste valorization, biomass conversion, homogeneous and heterogeneous catalysis, enzyme-based processes and alternative energy. The symposium will bring together scientists from the academic, industrial and government sectors to discuss emerging green chemical strategies in biotechnology, chemistry, chemical engineering, environmental engineering and toxicology the impact environmental processes. Advances in green chemistry concepts will be enhanced by obtaining a better understanding of the mechanistic pathways involved in various reactions. The symposium will further focus on theoretical and experimental research by bringing together experts in the field to address the need for best practices for green chemical processes for the environment.
Organizers: Sherine O. Obare, *sherine.obare@wmich.edu*; Alina Badu, *z82babaa@uco.es*; Rafael Luque, *q62alsor@uco.es*
Cosponsors: ACS Committee on Environmental Improvement (CEI), Association of Environmental Engineering & Science Professors (AEESP)

Innovative Chemical & Material Approaches for Sustainable Water Purification
Our symposium centers on opportunities and challenges of developing new chemical and material approaches to remove waterborne pollutants, such as chemical, electrochemical, catalytic, enzymatic transformation, as well as membrane separation and selective adsorption, for treating (per)fluorinated compounds, EDCs, PPCPs, DBPs, natural toxins, toxic metals and oxyanions, and pathogens.
Organizers: Jinyong Liu, *jyliu@engr.ucr.edu*; Jong Kwon Choe, *jkchoe@snu.ac.kr*; Danmeng Shuai, *danmengshuai@gwu.edu*; Ying Wang, *wang292@uwm.edu*
Cosponsors: ACS Committee on Environmental Improvement (CEI)

Novel Membrane-based Technology for Water Purification & Desalination
Membrane technology has been quickly gaining popularity in drinking water purification, water reuse, wastewater reclamation, and desalination. Our symposium will focus on novel membrane materials and emerging membrane processes designed to desalinate or remove contaminants from water more effectively, efficiently, and sustainably.
Organizers: Baoxia Mi, *mib@berkeley.edu*; David Jassby, *djassby@engr.ucr.edu*

Novel Methods for Tracking Environmental Quality in Areas of Resource Development
This symposium is intended to focus on water quality monitoring in areas of resource development. Relevant research areas include design of novel sensors, engagement of citizen science monitoring programs, and curation of large data sets. Our intended audience is individuals working on the environmental quality impacts surrounding areas of resource development including those working on human health and the environment.
Organizers: Alandra Kahl, *afk12@psu.edu*; Nathaniel Warner, *nrw6@psu.edu*

Ongoing Challenges in the Treatment of Contaminants of Emerging Concern
This symposium will address ongoing challenges in treatment of contaminants of emerging concern (CECs), including the need to prioritize CECs, identify and characterize transformation products, extend novel high-throughput sequencing tools to assess impacts of CECs on microbial communities, and employ computational techniques to design novel sorbents for CECs.
Organizers: Lee Blaney, *blaney@umbc.edu*; Arturo Hernandez-Maldanado, *arturoj.hernandez@upr.edu*; Yujie Men, *ymen2@illinois.edu*; Andreas Heyden, *heyden@cec.sc.edu*

Redox & Interfacial Dynamics among Coupled Biogeochemical Cycles of Fe, S, Minerals & Organic Matter: Implications to Multiscale Behaviors of Contaminants, Carbon & Nutrients
This symposium highlights the interfacial and/or redox processes that couple Fe, S, organic matter and minerals and their sequent implications to multiscale behaviors of contaminants, carbon and nutrients in aquatic environments. The highlighted research will embrace the convergence of the interests of biogeochemists, environmental engineers, hydrologists and reactive transport/ecosystem modelers.
Organizers: Zimeng Wang, *zimengw@lsu.edu*; Yandi Hu, *yhu11@uh.edu*; Teng Zeng, *tezeng@syr.edu*; Jose Cerrato, *jcerrato@unm.edu*

Sustainable Product Development & Circular Economy
Different sectors have their unique needs for the type of data, analysis capabilities, tools to enable circular economy. In fact, this evolution and the focus on what needs to be done to accomplish environmentally-friendly research has a different meaning for different industries, and even for different departments. Government agencies, standards organizations, research community, as well as vendors are working hard to provide solutions that address these needs. This symposium will bring together scientists from the academic, industry and government sectors to discuss what changes are happening, how effective they are in moving towards green chemistry practices, what is working, and what is not, and most importantly, what roadblocks they are still facing that need to be addressed.
Organizers: Neelam Vaidya, *neelamv@viridischem.com*; Sherine Obare, *sherine.obare@wmich.edu*

Water Use Optimization: Water Quality, Reuse, & Treatment
This symposium will highlight recent progress in water use optimization, quality, reuse, and treatment. We welcome submissions from the early to late stage of research on these topics, including: Fate and Transport, Water Quality Issues for Potable and Non-potable Water Reuse, Desalination, System Integration, Membrane Development, Water and Energy Efficiency, and Sensor Technologies.
Organizers: Yu Yang, *yuy@unr.edu*; Nalini Rao, *nrao@epri.com*; Young-Shin Jun, *ysjun@wustl.edu*; Krishna Pagilla, *pagilla@unr.edu*; Sean Bushart, *sbushart@epri.com*

Improving Environmental Chemistry Education

Environmental Chemistry Undergraduate Education in the Classroom, Laboratory, & Beyond
Abstracts are requested for oral and poster presentations in the field of undergraduate education in environmental chemistry and sustainability. Topics may include, but are not limited to, novel undergraduate laboratory experiments, flipped approaches for environmental chemistry courses, and other strategies to engage

undergraduates in sustainability/environmental chemistry. Possible areas involve undergraduate research, service-learning, study abroad, and interdisciplinary curricula and co-curricula programs. Potential areas of interest include green chemistry, analytical chemistry, phytoremediation, biosorbants, climate change, geochemistry, water quality, and alternative energy.
Organizers: Lindsey Welch, *lawelch@cedarcrest.edu*; Michael Berger, *michael.berger@simmons.edu*
Cosponsors: ACS Division of Chemical Education (CHED)

Identifying Gaps & Opportunities in Graduate Education to Improve Sustainability of the U.S. Chemical Industries
The workshop goal is to initiate a pioneering, interdisciplinary, inter-societal initiative, which will transform sustainability education at the graduate level by bringing together ACS and AIChE leadership and members to address the needs of practicing engineering/chemistry community in introducing sustainability and environmental components into their professional environment. This is the first of two workshops, the second to be conducted at 2019 AIChE National Meeting.
Organizers: Alexander Orlov, *alexander.orlov@stoneybrook.edu*; Mary Kirchhoff, *m_kirchhorff@acs.org*
Cosponsors: AIChE, ACS DAC Innovative Projects Grants Program

Awards & Honorary Symposia

Award Symposium for Creative Advances in Environmental Science & Technology
[*Invited oral abstracts only*] This award recognizes outstanding research in Environmental Science and Technology.
Organizer: Sherine O. Obare, *sherine.obare@wmich.edu*
Cosponsors: Association of Environmental Engineering & Science Professors (AEESP), ACS Women Chemists Committee (WCC)

Great Achievements in Environmental Science & Technology
[*Invited oral abstracts only*] The ACS Publications journals Environmental Science & Technology and Environmental Science & Technology Letters celebrate great achievements in all areas of environmental science & technology! Join us to honor the winner of the 2018 James J. Morgan ES&T Early Career Award Lectureship, as well as winners of the 2016 Best Paper awards from the two journals. Also, learn about research advances from the labs of our esteemed Associate Editors.
Organizers: David Sedlak, *sedlak@est.acs.org*; Bruce Logan, *blogan@psu.edu*
Cosponsor: ES&T Journal

Physics & Chemistry of Water Treatment: Symposium in Honor of Professor Desmond F. Lawler
This ACS symposium will honor Professor Desmond F. Lawler in the Department of Civil, Architectural and Environmental Engineering at the University of Texas. His research interests have included (nano) particle removal and transport, membrane, precipitation, coagulation, and oxidation processes. This symposium seeks contributions across the spectrum of water quality and treatment.
Organizers: Lynn Katz, *lynnkatz@mail.utexas.edu*; Jeannie Darby, *jdarby@ucdavis.edu*; Jeff Nason, *Jeff.Nason@oregonstate.edu*; Navid Saleh, *navid.saleh@utexas.edu*

Shaping Activity through Structural Modification - From Small Molecules to Nanoparticles: A Symposium in Honor of Professor Bing Yan

The topics planned for this symposium include chemical biology, drug lead discovery, combinatorial chemistry, high-throughput methodologies, structure-activity relationship, nano-bio interactions and its modulation, environmental nanotechnology, nanosafety and nanotoxicity.

Organizers: Virender K. Sharma, *vsharma@sph.tamhsc.edu*; Dionysios D. Dionysiou, *dionysios.d.dionysiou@uc.edu*; Hongyu Zhou, *hyzhou001@126.com*

General Environmental Chemistry Sessions

General Posters

Abstracts of work that focuses on environmental chemistry and/or environmental engineering are encouraged.

Organizer: Sherine O. Obare, *sherine.obare@wmich.edu*

Cosponsored Symposia in Other Divisions:

[MPPG] Nexus of Food, Energy, & Water: Adapting to Future Challenges (Invited), Organizers: Dion Dionysiou, dionysios.d.dionysiou@uc.edu; Lisa Houston, mamanash@yahoo.com; Jingbo Liu, jingbo.liu@tamu.edu; Sherine Obare, sherine.obare@wmich.edu; Bosoon Park, bosoon.park@ars.usda.gov. Cosponsor: ENVR.

[CHED] GSSPC: Finding Our Place at the Bottom: A Symposium in Memory of Richard Feynman (Invited), Organizer: Nathaniel Richey, nerichey@chem.ufl.edu. Cosponsor: ENVR.

[CATL] *Catalytic & Photocatalytic Degradation of Pollutants & Chemical Threat Agents: New Developments in Materials & in In-situ & Operando Methods*, Organizers: Wesley Gordon, wegordon@vt.edu; Monica McEntee, mlm4gf@virginia.edu; Jeremy Pietron, jeremy.pietron@gmail.com. Cosponsor: PHYS, INOR, ENVR.

[CATL] *Catalytic Conversion of Biomass Derived Molecules to Chemicals & Fuels*, Organizers: Jae Choi, choijs@ornl.gov; Oz Gazi, ozg@technion.ac.il; Michelle Kidder, kidderm@ornl.gov. Cosponsor: ENFL, INOR, ENVR.

[CATL] *Challenge & Opportunity in Lignin Valorization*, Organizers: Mahdi Abu-Omar, abuomar@chem.ucsb.edu; Gregg Beckham, gregg.beckham@nrel.gov; Feng Wang, wangfeng@dicp.ac.cn. Cosponsor: ENFL, INOR, PHYS, ENVR.

[CATL] *Elucidation of Mechanisms & Kinetics on Surfaces*, Organizers: L. Robert Baker, baker.2364@osu.edu; Siris Laursen, slaursen@utk.edu; Aditya Savara, savaraa@ornl.gov. Cosponsor: COLL, PHYS, ENVR.

[CATL] *R&D in the Chemical Catalysis for Bioenergy Consortium* (Invited), Organizers: Susan Habas, susan.habas@nrel.gov; Daniel Ruddy, druddy@gmail.com; Joshua Schaidle, Joshua.Schaidle@nrel.gov. Cosponsor: ENFL, INOR, ENVR.

[CATL] *Unconventional Catalysis Targeting Stable Molecules*, Organizers: Christopher Marshall, marshall@anl.gov; Chao Wang, cwnano@gmail.com. Cosponsor: ENFL, INOR, PHYS, ENVR.

[CELL] *2018 ACS Sustainable Chemistry & Engineering Lectureship Award—Symposium in Honor of Rafael Luque, Ning Yan and Fengqi You*, Organizers: Jiaguang Zhang, jiaguang-zhang@nus.edu.sg; Gregg Beckham, gregg.beckham@nrel.gov; Sherine Obare, sherine.obare@wmich.edu. Cosponsor: ENVR.

[CELL] *Biobased Water Purification System Approaches*, Organizers: Ronald Gonzalez, rwgonzal@ncsu.edu; Hasan Jameel, jameel@ncsu.edu; Lucian Lucia, lalucia@ncsu.edu; Nancy Simon, nssimon@usgs.gov. Cosponsor: ENVR, AGFD.

[CELL] *Lignin: From Fundamentals to New Materials and Applications*, Organizers: Claudia Crestini, crestini@uniroma2.it; Heiko Lange, heiko.lange@uniroma2.it; Maija-Liisa Mattinen, maija-liisa.mattinen@aalto.fi; Mika Sipponen, mika.sipponen@aalto.fi; Monika Osterberg, monika.osterberg@aalto.fi. Cosponsor: ENVR, POLY.

[CELL] *Sustainable Production and Processing of Agricultural Crops: The FEW Nexus*, Organizers: Ali Ayoub, info@ayoubsciences.org; Baljit Ghotra, baljit.ghotra@adm.com; Lucian Lucia, lalucia@ncsu.edu; Tamim Younos, tyounos@gmail.com. Cosponsor: ENVR, AGFD, MPPG.

[CELL] *Valorization of Renewable Resources and Residuals into New Materials and Multiphase Systems*, Organizers: Maria Auad, auad@auburn.edu; Jose Campos-Teran, jcampos@correo.cua.uam.mx; Orlando Rojas, orlando.rojas@aalto.fi. Cosponsor: ENVR, POLY.

[CELL] *Wood-Based Materials for Energy and Water*, Organizers: Liangbing Hu, binghu@umd.edu; Sang-Young Lee, syleek@unist.ac.kr; Leif Nyholm, Leif.Nyholm@kemi.uu.se; Zhiyong Ren, zhiyong.ren@colorado.edu; Lars Wagsberg, wagberg@kth.se; Junyong Zhu, jzhu@fs.fed.us. Cosponsor: ENVR, MPPG.

[CHAS] *Water Supply Safety*
Water contaminating events such as the Flint Water Crisis, TVA and Duke Energy Ash spills in Tennessee and North Carolina and the 2014 Elk River chemical spill has many communities looking a little closer at their water supplies. From testing levels of pollutants to removing materials via filtration and using chemical treatments to remove microorganisms, it takes many types of chemistry to ensure that this valuable resource remains usable. As such, chemists do more than simply treat drinking water. We also have to monitor and maintain the quality of water we use in our labs and in our communities as chemistry plays an important role in maintaining the health of water before, during, and after usage.
Organizer: Monique Wilhelm, mwilhelm@umflint.edu
Cosponsors: CCS, ENVR

[CHED] *Undergraduate Research Posters: Environmental Chemistry*, Organizers: Nicole Di Fabio, n_difabio@acs.org; Jessica Roberts, j_roberts2@acs.org. Cosponsor: ENVR.

[CINF] *Cheminformatics Resources & Software Tools Supporting Environmental Chemistry*
This symposium will bring together a series of talks to provide an overview of the present state of data, tools, databases and approaches available to environmental chemists. The session will include the various modeling approaches and platforms, will examine the issues of data quality and curation, and intends to provide the attendees with details regarding availability, utility and applications of these systems. We will focus especially on the availability of Open systems, data and code with no limitations to access and reuse.
Organizers: Grace Patlewicz, patlewig@hotmail.com Antony Williams, tony27587@gmail.com
Cosponsors: ENVR, COMP

[ENFL] *Food vs. Fuel*, Organizers: Matthew Hilfiger, matthew.hilfiger@aramcoservices.com; Lisa Houston, mamanash@yahoo.com. Cosponsors: AGFD, ENVR, AGRO

[ENFL] *Produces Water in Energy*, Organizers: Tulay Atesin, tulay.atesin@utrgv.edu; David Heldebrant, heldebrant@gmail.com. Cosponsors: ANYL, ENVR, CATL

[GEOC] *Biomineralization & Bio-Compatible Minerals*, Organizers: Jeffrey Rimer, jrimer@central.uh.edu; Jennifer Soltis, jennifer.soltis@pnnl.gov; Guomin Zhu, zhuguomin520520@gmail.com. Cosponsors: BIOL, ENVR.

[GEOC] *Contaminated Site Remediation through Microbial*, Geological & Chemical Processes, Organizers: Byong-Hun Jeon, bhjeon@hanyang.ac.kr; Yong Ok, soilok@kangwon.ac.kr; Daniel Tsang, dan.tsang@polyu.edu.hk. Cosponsor: ENVR.

[GEOC] *Fluid-Solid Interfacial Phenomena at the Nexus of Energy & Geochemistry Research: A Symposium in Honor of David J. Wesolowski* (Invited), Organizers: Nadine Kabengi, kabengi@gsu.edu; Michael Machesky, machesky@illinois.edu; Alexandra Navrotsky, anavrotsky@ucdavis.edu. Cosponsors: ENVR, INOR.

[GEOC] *Forensic Geology*, Organizers: Drew Coleman, dcoleman@unc.edu; Steven Singletary, ssingletary@robeson.edu. Cosponsor: ENVR.

[GEOC] *Impacts of Mining & Hydraulic Fracturing on Crop & Livestock Production*, Organizers: Daniel Alessi, alessi@ualberta.ca; Thomas Borch, borch@colostate.edu; Nathaniel Warner, nrw6@psu.edu. Cosponsors: AGRO, ENVR.

[GEOC] *Manganese Oxides: Their Formation, Structure, Reactivity & Applications*, Organizers: William Burgos, wdb3@psu.edu; Matthew Ginder-Vogel, mgindervogel@wisc.edu; Mengquiang Zhu, mzhu6@uwyo.edu. Cosponsor: ENVR.

[GEOC] *Microbially-Driven Geochemical Reactions: Kinetics & Communities*, Organizers: William Burgos, wdb3@psu.edu; Clara Chan, cschan@udel.edu; Sean Crowe, sacrowe@mail.ubc.ca. Cosponsors: BIOL, ENVR.

[GEOC] *Mineral-Water Interface Geochemistry & Modeling at the Laboratory- & Field-Scales: Symposium in Honor of James A. Davis* (Invited), Organizers: Kate Campbell, kcampbell@usgs.gov; Michael Hay, michael.hay@arcadis-us.com; Douglas Kent, dbkent@usgs.gov. Cosponsor: ENVR.

[GEOC] *Molecular Processes at Mineral-Water Interfaces: Linking Theory & Experiments*, Organizers: Jacquelyn Bracco, jbracco@anl.gov; Sara Mason, sara-mason@uiowa.edu; Juliane Weber, weberj@ornl.gov. Cosponsor: ENVR, INOR.

[GEOC] *Multiscale Biogeochemical Processes in Soil Ecosystems: Critical Reactions & Resilience to Climate Changes,* Organizers: Marco Keiluweit, keilu@stanford.edu; Baoshan Xing, bx@umass.edu; Yu Yang, yuy@unr.edu. Cosponsors: AGRO, ENVR.

[GEOC] *Theoretical & Experimental Studies of Supercritical Fluids in the Subsurface*, Organizers: Geoffrey Bowers, gmbowers1@smcm.edu; R. James Kirkpatrick, rjkirk@msu.edu; Narasimhan Loganathan, naresh20@msu.edu. Cosponsors: ENVR, INOR.

[PROF] *LGBTQ+ Graduate Student and Postdoctoral Scholar Research Symposium*
Contributed talks from graduate and postdoctoral students are sought for the LGBTQ+ Graduate Student and Postdoctoral Scholar Research Symposium at the Spring ACS Meeting in New Orleans. The symposium will consist of scientific talks by LGBTQ+ graduate students and postdoctoral scholars and will conclude with a panel discussion on issues that affect LGBTQ+ students and postdocs. Partial reimbursement of registration/travel expenses will be provided to the graduate student and postdoctoral scholar speakers. The symposium is sponsored by the Division of Professional Relations (PROF) and is nominally cosponsored by ENVR.