

AMERICAN CHEMICAL SOCIETY

DIVISION OF ENVIRONMENTAL CHEMISTRY

CALL FOR PAPERS

250TH ACS NATIONAL MEETING
Boston, MA – August 16-20, 2015

Dear Colleagues,

I invite you to join us and share your research results and progress in your research in the Division of Environmental Chemistry program at the 250th ACS National Meeting in Boston, MA, August 16-20, 2015.

ENVR Program Chair: Dionysios (Dion) D. Dionysiou, Ph.D., UNESCO Co-Chair Professor of “Water Access and Sustainability” and Professor of Environmental Engineering, Center of Sustainable Urban Engineering; Drinking Water, Water Supply, Quality, and Treatment, and Environmental Nanotechnology Laboratories; Environmental Engineering and Science Program; Department of Biomedical, Chemical and Environmental Engineering (DBCEE), 705 Engineering Research Center, University of Cincinnati, Cincinnati, OH 45221-0012; Phone (513) 556-0724; Email: dionysios.d.dionysiou@uc.edu

Abstract Submission Deadline: March 16, 2015. Submit abstracts to the Division of Environmental Chemistry at <http://maps.acs.org> using your ACS ID and password, or you may create an ID on the abstract submission webpage.

SYMPOSIA

Click on title for a detailed description.

ACS Award for Creative Advances in Environmental Science and Technology: Symposium Honoring Dr. Paul B Shepson
[Invited Abstracts Only], *Organizers:* Souhail Al-Abed, al-abad.souhail@epa.gov

Advanced Material, Reactor and System for CO₂ Utilization, *Cosponsor:* ENFL. *Organizers:* Jin Xuan, J.Xuan@hw.ac.uk; Hailiang Wang, hailiang.wang@yale.edu; Mercedes Maroto-Valer, m.maroto-valer@hw.ac.uk

Advanced Materials and Technologies for Desalination and Wastewater Reuse, *Cosponsor:* AEESP. *Organizers:* Qilin Li, qilin.li@rice.edu; Jaehong Kim, jaehong.kim@yale.edu

Advances in Chemistry for Carbon Capture, Utilization and Sequestration (CCUS), *Cosponsor:* ENFL. *Organizers:* Ming Zhao, ming.zhao@tsinghua.edu.cn; Paul Fennell, p.fennell@imperial.ac.uk; Nicholas Florin, nick.florin@uts.edu.au

Advances in Drinking Water Disinfection Byproducts Occurrence, Formation, Treatment, Health Effects, Epidemiology and Regulation, *Organizers:* Endalkachew Sahle-Demessie, Sahle-Demessie.Endalkachew@epa.gov; George Sorial, george.sorial@uc.edu

Advances in Sensing Technologies for Real-Time and Remote Monitoring of Water Quality, *Cosponsor:* AGRO. *Organizers:* Maria Romero-Gonzalez, m.e.romero-gonzalez@sheffield.ac.uk; Richard Plenderleith, r.a.plenderleith@sheffield.ac.uk

Anaerobic Dilute Wastewater Treatment: Control of Dissolved Methane and Nutrients, *Organizers:* Hyung-Sool Lee, hyungsool@uwaterloo.ca; Park Joonhong, parkj@yonsei.ac.kr; George Wells, george.wells@northwestern.edu

Application of Chemical Receptor Models for Contaminant Source Apportionment, *Cosponsor:* AGRO. *Organizers:* Jaana Pietari, jpietari@exponent.com; Kirk O'Reilly, koreilly@exponent.com

Assessing Transformation Products by Non-Target and Suspected Target Screening: The New Frontier in Environmental Chemistry and Engineering, *Organizers:* Jörg Drewes, jdrewes@tum.de; Thomas Letzel, t.letzel@tum.de; Shane Snyder, snyders2@email.arizona.edu

Biological Inspiration for Environmental Sustainability: Bioinspired Approaches for Energy Conversion, Storage and Materials, *Cosponsors*: ENFL, CEI. *Organizers*: Valentine I. Vullev, vullev@ucr.edu; Krishnan Rajeshwar, rajeshwar@uta.edu

C. Ellen Gonter Graduate Student Awards Symposium [Invited Abstracts Only], *Organizer*: Todd Anderson, todd.anderson@ttu.edu

Coupled Contaminant Fate Processes in Water Bodies of Developed Landscapes, *Cosponsor*: AGRO. *Organizers*: Timothy Vadas, vadas@engr.uconn.edu; Alison McKay, mackaya@engr.uconn.edu

Designing Safer Chemicals, *Cosponsors*: CEI, AGRO. *Organizers*: Julie Zimmerman, julie.zimmerman@yale.edu; Paul Anastas, paul.anastas@yale.edu; Adelina Voutchkova-Kostal, avoutchkova@gwu.edu

Detection and Fate of Health-Related Microorganisms in Water, *Cosponsor*: AGRO. *Organizers*: Krista Wigginton, kwigg@umich.edu; Kyle Bibby, BibbyKJ@pitt.edu

Discovering and Solving Contamination of Pesticides in Water, *Cosponsor*: AGRO. *Organizers*: Satinder (Sut) Ahuja, sutahuja@atmc.net; Lee Blaney, blaney@umbc.edu; Bommanna G. Loganathan, bloganathan@murraystate.edu

Emerging Electrochemical Water Remediation Technologies: A Symposium in Honor of Professor Enric Brillas and Professor Mehmet A. Oturan, *Cosponsor*: AGRO. *Organizers*: Virender K. Sharma, vsharma@sph.tamhsc.edu; Ignasi Sires Sadornil, i.sirs@ub.edu; Francisco Alcaide Monterrubio, falcaide@cidetec.es

Enantioselective Biotransformation of Chiral Pollutants in Soils and Water, *Cosponsor*: AGRO. *Organizers*: James M. Schmidt, schmidtj@abclabs.com; Izabela Kania-Korwel, izabela-korwel@uiowa.edu

Environmental Applications and Implications of Graphene-based Nanomaterials, *Organizers*: Indranil Chowdury, Chowdury.Indranil@epa.gov; Dermont Bouchard, bouchard.dermont@epa.gov; Mark C. Hersam, m-hersam@northwestern.edu

Environmental Aspects of Sustainable Management of Electronics, *Cosponsor*: CEI. *Organizers*: Endalkachew Sahle-Demessie, Sahle-Demessie.Endalkachew@epa.gov; Souhail Al-Abed, al-abad.souhail@epa.gov

Environmental Transformation of Nanoparticles: Processes, Mechanisms, and Ecological Impacts, *Organizers*: Kiril Hristovski, kiril.hristovski@asu.edu; Phil Larese-Casanova, phil@coe.neu.edu; Boris Lau, borislau@engin.umass.edu; Weile Yan, weile.yan@ttu.edu; Maximiliano Cledon, Maximiliano.cledon@ete.inrs.ca

Flue Gas Cleaning and Climate Control, *Cosponsor*: ENFL. *Organizers*: Rasmus Fehrmann, rf@kemi.dtu.dk; Anders Riisager, ar@kemi.dtu.dk

Green Chemistry and the Environment, *Cosponsor*: YCC. *Organizers*: Rafael Luque, q62alsor@uco.es; Alina Balu, z82babaa@uco.es; Sherine Obare, sherine.obare@wmich.edu

Heterogeneous Catalysis for Environmental Applications, *Cosponsor*: CATL. *Organizers*: Alex Orlov, alexander.orlov@stonybrook.edu; Aditya Savara, savaraa@ornl.gov; Shen Zhou, shenzhou@illinois.edu

Hydrothermal Carbonization: Possibilities and Limits for Feedstocks, Processes and Applications, *Cosponsor*: AGRO. *Organizers*: Kyoung S. Ro, Kyoung.Ro@ARS.USDA.GOV; Charles Coronella, coronella@unr.edu; Judy A. Libra, jlibra@atb-potsdam.de; SeChin Chang, SeChin.Chang@ARS.USDA.GOV

Microorganism-Membrane Interactions: Towards Understanding Pathogen Removal and Membrane Biofouling, *Cosponsor*: AEESP. *Organizers*: Vlad Tarabara, tarabara@msu.edu; Helen Nguyen, thn@illinois.edu; Irene Xagorarakis, xagorara@egr.msu.edu

Nano-enabled Environmental Technologies, *Financial Supporter*: Boston University, Division of Materials Science & Engineering. *Organizers*: Kiril Hristovski, kiril.hristovski@asu.edu; Jillian Goldfarb, Jilliang@bu.edu; Kyle Doudrick, kdoudrick@nd.edu

New Challenges in Water Quality, Treatment, Reuse and Sustainability: Chemistry and Application of Advanced Oxidation Processes for Removal of Contaminants of Concern and Transformation Products, *Cosponsor*: CEI. *Organizers*: Gianluca

Li Puma, g.lipuma@lboro.ac.uk; Dionysios Dionysiou, dionysios.d.dionysiou@uc.edu; Kevin Oshea, osheak@fiu.edu; Daisuke Minakata, dminakat@mtu.edu; Regina de Fatima Peralta Muniz Moreira, regina@enq.ufsc.br

Next Generation Nanomaterials: Advances and Perspectives for Biomedicine, Energy, and Environmental Protection,
Cosponsor: ENFL. *Organizers:* Jie Song, jsong7@emory.edu; Jiaqi Mi, jmi1@gsu.edu

Reclamation, Remediation, Restoration: Novel Approaches to Environmental Challenges, *Cosponsor:* AGRO. *Organizers:* Linda S. Lee, Ph.D., llee@purdue.edu; Michael L. Mashtare, Ph.D., mmastare@purdue.edu; Laurel A. Royer, Ph.D., lroyer@exponent.com

Resource Recovery and Contaminant Elimination in Waste Streams of Increasing Concern, *Cosponsor:* AEESP.
Organizers: Treavor H. Boyer, thboyer@ufl.edu; Ching-Hua Huang, ching-hua.huang@ce.gatech.edu

Sensing of Environmentally Relevant Contaminants, *Cosponsor:* AGRO. *Organizers:* David Jassby, djassby@enr.ucr.edu; Brian Chaplin, bpchaplin@gmail.com

Status and Trends of Biological and Persistent Organic Chemicals in the Great Lakes, *Organizers:* James Pagano, james.pagano@oswego.edu; Dionysios Dionysiou, dionysios.d.dionysiou@uc.edu

Using Passive Sampling Techniques to Detect Organic Contaminants, *Cosponsors:* AEESP, ORGN, AGRO. *Organizers:* Rainier Lohmann, lohmann@gso.uri.edu; Carrie McDonough, carriemc@my.uri.edu

General Posters, *Organizers:* Dion Dionysiou, dionysios.d.dionysiou@uc.edu

Cosponsored Symposia:

AGRO – For detailed descriptions of symposia, see <http://www.agrodiv.org/>.

*Global Research Needs: Identifying and Prioritizing Efforts to Sustain Environmental Quality (cooperatively cosponsored by ENVR and SETAC, nominally cosponsored by TOXI): Bryan Brooks, Baylor University, 254-710-6553, Bryan_Brooks@baylor.edu; George Cobb, Baylor University, 254-710-6556, George_Cobb@baylor.edu; Dionysios Dionysiou, University of Cincinnati, 513-556-0724, dionysios.d.dionysiou@uc.edu; Pamela Rice, USDA-ARS, 612-624-9210, Pamela.Rice@ars.usda.gov; Elin Ulrich, US EPA, 919-541-3717, Ulrich.Elin@epa.gov

Advances in Pesticide Residue Analysis: Innovations that Lead to Novel Applications (AGFD, ANYL, ENVR)

Antibiotics in Agricultural Ecosystems: Fate, Treatment, Analysis, and Ecological Effects (ANYL, ENVR)

Biomonitoring for Pesticide Exposures (ENVR)

Current Topics in Seed Treatment (ANYL, ENVR)

Data to Decisions: Software Solutions for Modern Analytical Workflows (AGFD, ANYL, ENVR)

Degradation of Halogenated Compounds in the Environment (ENVR)

Development of More Efficient Pesticide Exposure Screening Informed by Fate, Usage, and Monitoring Data (ENVR)

Endangered Species Risk Assessment for Pesticides: Advances in Methods and Process (ENVR)

Environmental Fate, Management, and Mitigation of Nitrogen in Agricultural Systems (ENVR)

Environmental Fate, Transport, and Modeling of Agricultural Chemicals (ENVR)

Formulation Technologies for Improved Crop Protection (AGFD, COLL, ENVR, ORGN)

GMOs and the Entanglement of Intellectual Property Rights (AGFD, BIOT, CHAL, ENVR, SCHB)

Immunoassays and Other Bioanalytical Techniques (Immunochemistry Summit XII) (AGFD, ANYL, BIOT, ENVR, SCHB)

Latest Trends in Environmental Fate and Exposure Assessments: Filling in Knowledge and Data Gaps across the Commodity Groups (ENVR)

Lysimetric Studies and Point Source Contamination by Leaching (ENVR)

Pesticide Dose: Effects on the Environment and Target and Non-Target Organisms (ENVR)

Pesticide Residues in Latin America: Ecotoxicology and Environmental Sustainability (AGFD, ENVR)

Pesticides and Hydrophobic Compounds in Sediment (ENVR)

Pollinators and Agrochemicals (ENVR)

Recent Advances in the Analysis of Environmental Contaminants in Foods and Feeds (AGFD, ANYL, ENVR)

Spray Application Technology (ENVR)

Urban Agriculture: Turf, Ornamentals, Household Products, and Water-Re-Use (ENVR)

ENFL –

- Innovative chemistry and electrocatalysis for low-carbon energy and fuels: discovery to application
- Chemical looping innovation for low-carbon energy
- Biomass and Biofuels for Powering the World: discovery to application
- Porous materials for Energy and Sustainability from discovery to application
- Novel materials and processes for carbon capture, utilization and storage

PHYS –

Chemical Processes of Atmospherically Relevant Trace Gases, Aerosols and Clouds

CALL FOR PAPERS

Advanced Material, Reactor and System for CO₂ Utilization

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Cosponsored by ACS Division of Energy & Fuels

The symposium will provide a timely platform for scientists from academic, industrial and government sectors to discuss the development of CO₂ utilization to solve environmental and energy issues. We will specially focus on the recent material, reactor and system development for CO₂ capture and utilization (CCU), which will accelerate the process of its commercialization and large-scale application. Obtaining better understanding on the mechanisms of various interactions from molecular scale to system scale will be critical to continuously advance the CCU technology. Therefore, interdisciplinary approaches involving environmental chemistry, science, engineering and multiscale modelling will be emphasised and discussed in the symposium to address the need for best practices for CCU technology development.

The topics that would be covered in this session are, but are not limited to:

- Materials for CO₂ activation and adsorption
- Advanced electrochemistry for CCU
- Computational modeling/prediction
- Analytical methods
- Solar fuel from CO₂
- Novel reactor and process design
- CCU industrialization issues
- Nanotechnology for CO₂ utilization
- Biological conversion of CO₂

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Dr Jin Xuan

Centre for Innovation in Carbon
Capture and Storage
Heriot-Watt University
Edinburgh, UK
j.xuan@hw.ac.uk

Dr Hailiang Wang

Department of Chemistry
Yale University
West Haven, CT, USA
hailiang.wang@yale.edu

Prof. Mercedes Maroto-Valer

Centre for Innovation in Carbon
Capture and Storage
Heriot-Watt University
Edinburgh, UK
M.Maroto-Valer@hw.ac.uk



AMERICAN CHEMICAL SOCIETY
DIVISION OF ENVIRONMENTAL CHEMISTRY

CALL FOR PAPERS

Advanced Materials and Technologies for Desalination and Wastewater Reuse

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Cosponsored by Association of Environmental Engineering and Science Professors (AEESP)

Rapid population growth, water pollution by agricultural and industrial activities, and climate change threaten to exacerbate fresh water scarcity. Desalination and wastewater reuse are two strategies that are becoming increasingly necessary to meet the demand for fresh water supply. Innovation in water treatment materials and process design is critical for desalination and wastewater reuse technologies to compete with conventional water sources. Technologies that reduce chemical and energy consumption as well as harmful treatment byproducts are needed. This symposium will present the most recent scientific findings and technological development that lead to more cost-effective desalination and wastewater reuse.

The topics that would be covered in this session are, but are not limited to:

- Novel membrane materials
- Membrane fouling/scaling and control strategies
- Desalination using renewable energy
- Novel adsorbents for salt and organic contaminant removal
- Nanotechnology for disinfection

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Qilin Li, Ph.D.
Associate Professor
Department of Civil and Environmental Engineering
Rice University
Email: Qilin.li@rice.edu
Phone: (713)348-2046

Jaehong Kim, Ph.D.
Barton L. Weller Associate Professor
Department of Chemical and Environmental
Engineering
Yale University
Email: jaehong.kim@yale.edu
Phone: (203)432-4386

CALL FOR PAPERS

Advances in Chemistry for Carbon Capture, Utilization and Sequestration (CCUS)

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Decarbonizing the global energy supply is a central challenge if the world is to achieve significant CO₂ emission reductions necessary to avoid the dangers of climate change. Carbon capture, utilization and sequestration (CCUS) has been entrusted with about 20% of the reduction in anthropogenic CO₂ emission. Most of the current CCUS technologies, however, are still in the way to commercialization due to the unacceptable economic and environmental impacts. Advances in chemistry for CCUS is thus thirstily needed giving greater potentials towards application. Innovations aiming to reduce energy and material input, lessen system complexity and minimize healthy and environmental risk will be highlighted.

The topics that would be covered in this session are, but are not limited to:

- High-temperature looping captures
- Low-temperature adsorptions
- Basic scrubbing
- Membrane separations
- CO₂ reductions
- New CO₂ conversion mechanisms
- Chemistry in geologic CO₂ sequestration
- Other advanced chemistries for CCUS

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Ming Zhao, Ph.D.
Associate Professor
School of Environment
Tsinghua University
Beijing 100084 China
Tel/Fax: +86 10 6278 4701
Email:
ming.zhao@tsinghua.edu.cn

Paul Fennell, Ph.D.
Reader
Department of Chemical Engineering
Imperial College London
South Kensington Campus
London SW7 2AZ, UK
Tel: +44 (0)20 7594 6637
Email: p.fennell@imperial.ac.uk

Nicholas Florin, Ph.D.
Research Principal
Institute for Sustainable Futures
University of Technology, Sydney
Level 11, Building 10, 235 Jones
Street Ultimo 2007 Australia
Tel: +61 2 9514 4797
Email: nick.florin@uts.edu.au



CALL FOR PAPERS

**Advances in Drinking Water Disinfection Byproducts Occurrence,
Formation, Treatment, Health Effects, Epidemiology and Regulation**

At 250th ACS National Meeting & Exposition
"Innovation from Discovery to Application"

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Controlling the formation of disinfection by-products (DBPs) when disinfectants (chlorine, ozone, chlorine dioxide, or chloramines) react with naturally occurring organic matter, anthropogenic contaminants, bromide, and iodide during the production of drinking water has been a challenge to water treatment plants. There is a need to better understand the chemistry, toxicology and epidemiology of chemical disinfectants and their associated DBPs in order to develop a better understanding of the health risks, associated with drinking-water.

- The topics that would be covered in this session are, but are not limited to Preventing DBP formation
- Methods to Identify DBPs
- Exposure assessment evaluation of different disinfectants
- Formation kinetics of DBPs, water quality
- Improved best practices for minimizing the formation of DBPs
- Toxicology studies on newly-identified or poorly-characterized DBPs
- Health effects and epidemiological research including better approaches for assessing exposures and health effects.
- DBP toxicology and mechanisms
- Chemistry and respiratory effects of swimming pools and spas
- Innovative technologies for small systems to control DBP
- Advances in the removal of DBPs after their processes
- Advances in evaluating biological and chemical risks of conventional and alternative disinfectants
- Epidemiological Evidence On DBPs, human cancer and reproductive effects

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the Conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

George Sorial, PhD, Professor of Environmental Engineering & Department Head
Department of Biomedical, Chemical, and Environmental Engineering
College of Engineering and Applied Science
University of Cincinnati
Tel: (513) 556-2987, Fax: (513) 556-4162
Email: George.Sorial@uc.edu

WEB: <http://ucfilespace.uc.edu/~sorialga>

Endalkachew Sahle-Demessie, PhD.
US EPA, Office of Research and Development
National Risk Management Research Laboratory
Cincinnati, OH 45268
Tel: (513) 569-7739
Email: sahle-demessie.endalkachew@epa.gov

CALL FOR PAPERS

Advances in Sensing Technologies for Real-Time and Remote Monitoring of Water Quality

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Cosponsored with the ACS Agrochemicals Division

The development of computer and remote technologies is fast advancing the possibility of real-time and remote sensing to monitor water quality. Recent engineering development and testing of monitoring technologies by federal agencies and regulators, industry and academic research groups across North America and Europe have brought a wealth of options for the rapid detection of airborne pathogens, nutrient loadings, pesticides, nuclear waste and other harmful substances that affect the water environment. This symposium will showcase the most recent technological advances from its chemical and engineering conception to field demonstration including portable and ground remote sensors, satellites, measurement and model of data. Contributions that demonstrate the development of novel in-situ, low cost and remote technologies for the detection of bacteria, nutrients and other harmful contaminants including nuclear related compounds are highly desired. Remote technologies that integrate satellite or remote data collection with in-situ measurements are also highly desired. We welcome contributions that demonstrate innovative applications of sensing technologies for a fast response under extreme conditions to protect the water environment.

The topics that would be covered in this session are, but are not limited to:

- Novel portable sensors for the detection of nutrients, bacteria and algae and other harmful substances in water
- Ground remote sensors including nuclear waste sensors
- Satellite, UAV and flight drones for water and precision agriculture
- Sensors for aquaculture environments

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Maria Romero-González, PhD
University of Sheffield
m.e.romero-gonzalez@sheffield.ac.uk

Richard Plenderleith
University of Sheffield
r.a.plenderleith@sheffield.ac.uk

CALL FOR PAPERS

Anaerobic dilute wastewater treatment: Control of dissolved methane and nutrients

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Anaerobic dilute wastewater treatment (e.g., domestic wastewater) can improve energy efficiency and sustainability over conventional activated sludge processes due to energy recovery, no aeration, and less sludge production. However, there are several challenges to be addressed for success of the anaerobic wastewater treatment. Control of dissolved methane and nutrients is especially important to meet effluent standards and to mitigate anthropogenic methane emissions. The goal of this session is to share recent advances and new avenues in anaerobic dilute wastewater treatment, with a focus on management of dissolved methane and nutrients. This session will cover fundamentals to applications on these subjects from environmental/chemical engineering, microbiology, and material science, such as recovery or control of dissolved methane/nutrients, understanding methane molecule dynamics, denitrifying anaerobic methane oxidation, anammox, microbial electrochemical cells, molecular biology and metagenomics, and innovative materials and processes.

Abstracts are solicited for platform or poster presentations for this symposium. Please submit a short abstract (150 words) to the ACS Meeting Abstracts and Programming System (MAPS) at <http://maps.acs.org> by March 16, 2015 to be considered for a presentation. Please indicate your preference for a platform or poster presentation. This is an excellent opportunity to make a timely contribution to the scientific community in anaerobic wastewater treatment.

Any other inquiries should be directed to the symposium organizers: Hyung-Sool Lee, hyungsool@uwaterloo.ca; Joonhong Park, parkj@yonsei.ac.kr; or George Wells, george.wells@northwestern.edu.

CALL FOR PAPERS

Application of Chemical Receptor Models for Contaminant Source Apportionment

At 250th ACS National Meeting & Exposition
"Innovation from Discovery to Application"

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Cosponsored by the ACS Agrochemicals Division

This session focuses on the application of receptor models to apportion contaminant sources to the environment. Receptor models are mathematical procedures that are able to solve or estimate the number of potential sources, their chemical composition, and relative contributions to receptor samples, in environmental systems. While developed to assess sources of atmospheric pollutants, receptor models are increasingly being used along with other lines of statistical investigations to evaluate contaminant contributions of multicomponent complex chemical sources to other environmental media, such as soils, sediments, and surface waters. The topics that would be covered in this session are, but are not limited to:

- Applications of source apportionment models such as positive matrix fractionation (PMF), Unmix, chemical mass balance (CMB) modeling, multiple linear regression (MLR) to various environmental matrices
- Use of multivariate exploratory models such as principal component analysis (PCA)
- Importance of source identification as an input to a receptor model or as a post-model matching of source profiles to real-world sources
- Data quality requirements for successful application of the models
- Treatment of censored chemical data
- Incorporation of uncertainties in source and receptor profiles
- Experiences in and benefits of ensemble application of multiple models
- Use of source apportionment models to guide policy decisions

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Jaana Pietari, Ph.D.
Exponent Inc.
One Clock Tower Place Suite 150
Maynard MA 01776
jpietari@exponent.com
978-461-4624

Kirk O'Reilly, Ph.D.
Exponent, Inc.
15375 SE 30th Place Suite 250
Bellevue WA 98007
koreilly@exponent.com
425-519-8704

CALL FOR PAPERS

Assessing Transformation Products by Non-Target and Suspected Target Screening: The New Frontier in Environmental Chemistry and Engineering

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Session organizer: Jörg E. Drewes, Thomas Letzel, Technische Universität München, Germany
Shane A. Snyder, The University of Arizona, USA

This session will address latest developments in research directed to understand the fate and relevance of transformation products from chemicals of emerging concern (such as pharmaceuticals, personal care products, household chemicals) associated with conventional and advanced chemical and biological water treatment processes (e.g., activated sludge systems; biofiltration; ozonation; UV/AOP; managed aquifer recharge). This requires analytical methods including non-target and suspected target screening to identify transformation products, data assessment tools, and examples how these tools can be used for a more comprehensive understanding of biological and chemical water and wastewater treatment processes employed to remove chemicals of emerging concern.

The topics that are of interest to this session are not limited to but might include:

- Non-target screening approaches for transformation products
- Suspected target screening approaches for transformation products and metabolites
- Polarity extended separations for the detection of polar CECs
- International monitoring standards and result harmonization
- Fate of transformation products during conventional and advanced water treatment processes
- Identifying transformation products of relevance in (surface) waters
- Data assessment strategies and normalization approaches

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Prof. Dr.-Ing. Jörg Drewes, Prof. Dr. Thomas Letzel
Chair of Urban Water Systems Engineering
Technische Universität München
Am Coulombwall 8
85748 Garching, Germany
P: +49 (0)89.289.13713, -13780
E: jdrewes@tum.de, t.letzel@tum.de

Prof. Dr. Shane Snyder
Co-Director – AZ Lab for Emerging Contaminants
University of Arizona
1133 E. James E. Rogers Way
Tucson, AZ 85721-0011
P: +1 520.621.2573
E: snyders@email.arizona.edu

CALL FOR PAPERS

Biological Inspiration for Environmental Sustainability: Bioinspired Approaches for Energy Conversion, Storage and Materials

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Cosponsored by the ACS Division of Energy & Fuels and ACS Committee on Environmental Improvement

Objectives. This symposium will bring chemists and engineers with diverse expertise who have a common interest in employing ideas from biology to address pending environmental threats and challenges. The symposium will focus on key challenges pertinent to the impacts from energy production and consumption on the environment, the addressing of which requires not only innovative technological developments, but also unprecedented fundamental paradigms. Therefore, this symposium will provide a platform for interfacing basic science with applied engineering as a driving force for innovation, which will be in concord with the theme of the national meeting, *“Innovation from Discovery to Application.”*

The topics that would be covered in this session are, but are not limited to:

- Impact of energy production and consumption on the carbon cycle
- Bioinspired advances for environmentally benign energy production: Solar cells and solar fuels
- Carbon dioxide fixation and sequestration
- Bioinspired materials for energy and environmental sustainability
- New frontiers: Utilizing the nitrogen cycle for energy storage and its potential impacts on the environment

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Organizers:

Valentine I. Vullev, Ph.D.
Associate Professor
University of California, Riverside
vullev@ucr.edu

Krishnan Rajeshwar, Ph.D.
Distinguished University Professor
University of Texas at Arlington
rajeshwar@uta.edu

CALL FOR PAPERS

Coupled Contaminant Fate Processes in Water Bodies of Developed Landscapes

At 250th ACS National Meeting & Exposition
"Innovation from Discovery to Application"

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Cosponsored by the ACS Agrochemicals Division

Developed landscapes and receiving water bodies are unique ecosystems shaped by their hydrology and patterns of contaminant loading. The fate of nutrients, metals or organic contaminants in these water bodies is tied to both the altered physical environment and the activity of primary producers or heterotrophic organisms that control carbon and nutrient processing. Examples of such interactions could be biological or photochemical transformation of effluent organic matter and how that alters metal speciation or reactive oxygen species generation, or nutrient enriched runoff promoting biological growth and subsequent changes in metal retention or organic contaminant transformations. This symposium focuses on progress in understanding the coupled interactions and ecosystem level feedbacks controlling contaminant fate at any scale and strategies for mitigation. We are particularly interested in interdisciplinary investigations that bridge mechanistic scale processes with field scale investigations or modeling simulations.

The topics that would be covered in this session are, but are not limited to:

- Stormwater or effluent sourced contaminants
- Organic matter coupled contaminant fate
- Indicators of contaminant transformation potential
- Stoichiometry and energetics of contaminant cycling
- Biological attachment and uptake

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Timothy Vadas, Ph.D.
University of Connecticut
vadas@engr.uconn.edu

Allison MacKay, Ph.D.
University of Connecticut
mackaya@engr.uconn.edu



AMERICAN CHEMICAL SOCIETY
DIVISION OF ENVIRONMENTAL CHEMISTRY

CALL FOR PAPERS

Designing Safer Chemicals

At 250th ACS National Meeting & Exposition
"Innovation from Discovery to Application"

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

*Cooperatively Cosponsored by the ACS Committee on Environmental Improvement
Nominally Cosponsored by the ACS Agrochemicals Division*

We are in a time of converging trends: new scientific knowledge about the impact of synthetic chemicals on human health and development; disquieting health trends showing increasing rates of chronic diseases and disabilities; growing recognition that regulation and management of hazardous chemicals has failed to adequately protect both occupational and public health; and rising public distrust in industry behavior and governance. Such challenges arise because commercial chemicals can exhibit unintentional biological activity, increasing the risk for adverse environmental and human health outcomes. Given the challenge in identifying potential new endpoints of concern (i.e., endocrine disruption), low-dose chronic effects, and the expensive nature of testing in both economic and ethical terms, some potential toxic effects of new chemicals are only recognized after they have been introduced to the market and evidence of human health concerns have manifested. Extensive human health and ecotoxicological testing of all new products is not feasible due to the number of new chemicals introduced daily and the prohibitive economic and social cost of testing, particularly in vivo. There is a critical need for alternative strategies, particularly in silico approaches, not only to predict toxicity, but also to inform the design of new commercial chemicals with minimal unintended biological activity. This has further relevance in terms of reducing expenses associated with human health evaluation by identifying chemicals that require further testing, and indicating potential tests of the highest priority. The objective of this session is to explore the advances in assessing the potential to design safer chemicals to retain function but with minimized unintentional biological activity. Presentations on tools to advance knowledge with relevant application to this challenge including QSAR, computational chemistry, and mechanistic toxicology are welcome. Further, presentations detailing specific case studies of applying this approach to a specific chemical class or a particular endpoint will be strongly encouraged.

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Julie Beth Zimmerman, PhD
Professor, Green Engineering
Dept. of Chemical and
Environmental Engineering
School of Engineering and Applied
Sciences
School of Forestry and
Environmental Studies
Yale University
Julie.Zimmerman@yale.edu
203-432-9703

Paul Anastas, PhD
Teresa and H. John Heinz III
Professor in the Practice
of Chemistry for the Environment
Sch. of Forestry & Envir. Studies
Depts. of Chemistry and Chemical
and Environmental Engineering
School of Management
Yale University
Paul.Anastas@yale.edu
203-436-5127

Adelina Voutchkova-Kostal
Assistant Professor
Department of Chemistry
George Washington University
avoutchkova@email.gwu.edu
202-994-6477

CALL FOR PAPERS

Detection and Fate of Health-Related Microorganisms in Water

At 250th ACS National Meeting & Exposition
"Innovation from Discovery to Application"

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Cosponsored by the ACS Agrochemicals Division

Advances in microbial sequencing techniques have provided a windfall of data on the microorganisms that are present in drinking water and wastewater. Meanwhile, water and wastewater regulations rely heavily on indicator organisms (e.g., fecal coliforms), despite the fact that research suggests these organisms do not adequately represent the associated risks from pathogens. This symposium aims to provide an update on the state of knowledge of health-related water microbiology, including microorganism discovery, their biological and chemical fate in water treatment processes and the natural environment, and their potential applications. In particular, the symposium will bring together specialists in environmental chemistry, environmental microbiology, environmental engineering, and public health to present recent research on: (a) state-of-the art tools for detecting microorganisms and assessing their fate in water and wastewater treatment, (e.g., metagenomics, microarrays, mass spectrometry, etc.), and (b) recent findings on the presence and fate of health-related microorganisms that can be used to inform disinfection and monitoring efforts.

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Krista Rule Wigginton
University of Michigan
kwigg@umich.edu

Kyle Bibby
University of Pittsburgh
BibbyKJ@pitt.edu

CALL FOR PAPERS

Discovering and Solving Contamination of Pesticides in Water

Abstract Deadline: March 16, 2015

Cosponsored by the ACS Agrochemicals Division

Our increasing demand for food for the growing world population requires using pesticides to protect the food crops. Water contamination can occur due to faulty application of pesticides. Also, the pesticides used may not degrade to harmless materials in reasonable time after application and may wash into the soil and thus reach some water sources. A large number of people worldwide can be affected by this pollution. It is important to monitor our water supplies with ultratrace methods to discover which pesticides are finding their way into our water sources. This contamination can lead to significant health issues if effective remediation solutions are not found. Papers are invited which will focus on how water is contaminated with various pesticides, ultratrace methods used for monitoring and characterizing them, and the best options for remediation. Solutions that offer significant improvements in water purification technologies, at reasonable costs, should be highlighted. Lectures are invited to cover the following topics:

- (1) discovering pesticides contamination in water.
- (2) characterizing pesticides contaminants
- (3) monitoring the release of pesticides and degradation products into water
- (4) risk assessment and management strategies of these contaminants
- (5) environmental implications of the contaminants
- (6) remediation methods

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. Any other inquiries should be directed to the symposium organizers:

Satinder (Sut) Ahuja PhD
President, Ahuja Consulting
1061 Rutledge Court
Calabash, NC 28467
Sutahuja@atmc.net
Tel: 910 287 7565
Email: sutahuja@atmc.net

Lee Blaney, PhD
Assistant Professor
Dept. of Chemical, Biochemical and
Environmental Engineering
Univ. of Maryland, Baltimore Co. (UMBC)
1000 Hilltop Circle, Engineering 314
Baltimore, MD 21250
Email: blaney@umbc.edu
Office: (410) 455-8608

Bommanna G. Loganathan, Ph.D.
Prof. of Environmental/Analytical Chem.
1201 Jesse D. Jones Hall
Murray State University
Murray, KY 42071, USA
Phone: (270)-809-3044.
bloganathan@murraystate.edu



CALL FOR PAPERS

Emerging Electrochemical Water Remediation Technologies
A Symposium in Honor of
Professor Enric Brillas and Professor Mehmet A. Oturan

At 250th ACS National Meeting & Exposition
August 16-20, 2015
Boston, Massachusetts

Cosponsored by the ACS Agrochemicals Division

In the last few years, the application of electrochemical methods (and the electrochemical advanced oxidation processes (EAOPs) in particular) to water remediation has attracted the attention of researchers and entrepreneurs, who aim to reach the scale-up at mid-term of some viable technologies for their use in wastewater treatment plants or the treatment of manufacturing effluents. The extraordinary progress experienced by all these electrochemical processes, particularly for the destruction of aqueous organic pollutants, including the devise of novel hybrid methods taking advantage of the Fenton's reaction concept. Great advances achieved in several technologies for the treatment of organic pollutants: electro-Fenton (EF), UV and solar photoelectro-Fenton and peroxi-coagulation. EAOPs based on Fenton's reaction chemistry are emerging technologies for water remediation. Over the past decade, EAOPs experienced a significant development showing great effectiveness for the decontamination of wastewater polluted with toxic and persistent pesticides, dyes, pharmaceuticals and personal care products, and a large plethora of industrial pollutants.

The symposium will honor Professor Enric Brillas, Universitat de Barcelona, Barcelona Spain and Professor Mehmet A. Oturan, Université Paris-Est, Paris, France. Both professors are pioneers in EAOPs and have made advances in these processes.

The topics that would be covered in this symposium, but not limited to, are: electrochemistry, photochemistry, solar chemistry, sonochemistry and toxicology, as well as on chemical and electrochemical engineering.

Please submit your abstracts (150 words or less) using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. Other inquiries should be directed to the symposium organizers:

Prof. Virender K. Sharma. Department of Environment and Occupation Health, School of Public Health, Texas A&M University, College Station, TX 77843-1266; E-mail: vsharma@sph.tamhsc.edu

Dr. Francisco Alcaide Monterrubio, División de Energía, IK4-CIDETEC, Paseo Miramón, 196, Donostia-San Sebastián, Spain. E-mail: falcaide@cidetec.es

Prof. Ignacio Sirés Sadornil, Laboratori d'Electroquímica dels Materials i del Medi Ambient (LEMMA), Departament de Química Física, Facultat de Química, Universitat de Barcelona, Martí i Franquès 1-11, 08028 Barcelona, Spain. E-mail: i.sires@ub.edu

CALL FOR PAPERS

Enantioselective Biotransformation of Chiral Pollutants in Soils and Water

At 250th ACS National Meeting & Exposition
"Innovation from Discovery to Application"

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Cosponsored by the ACS Agrochemicals Division

The topics that would be covered in this session are, but are not limited to:

- Case Studies of Enantioselective Biotransformation of Agrochemicals in Soil and/or Water
- Case Studies of Enantioselective Biotransformation of Pharmaceuticals in Soil and/or Water
- Importance of Chemical Microenvironments (pH, etc.) in Enantioselective Biotransformation of Pollutants
- Importance of Biological Microenvironments (Microbial Populations, etc.) in Enantioselective Biotransformation of Pollutants
- Regulatory, Intellectual Property, and Other Business Considerations in Development of Chiral Products
- Advances in Bio-Analytical Chemistry of Chiral Pollutants in Soil and/or Water

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

James M. Schmidt
Sr Scientific Advisor
Environmental Fate, Metabolism, and Product Chemistry
ABC Laboratories, Inc.
Columbia, MO USA
schmidtj@abclabs.com
Phone 573-777-6412 (office)

Izabela Kania-Korwel, PhD
Assistant Research Scientist
Environmental Health Sciences Research Center
University of Iowa
Iowa City, IA USA
izabela-korwel@uiowa.edu
Phone: (319) 335-4220

CALL FOR PAPERS

Environmental Applications and Implications of Graphene-based Nanomaterials

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Graphene is an atomically thin two dimensional carbon-based nanomaterial, which is a building block of other carbon-based nanomaterials including carbon nanotubes and fullerenes. Its excellent electrical, mechanical and thermal properties make graphene one of the most popular nanomaterials in industry and scientific research with a range of current and potential applications in electronic, medical, energy, and environmental sectors. Moreover, the increased production of graphene-based nanomaterials increases the potential for their release in the environment and necessitates a thorough understanding of their fate and transport in aquatic and terrestrial ecosystems. In this symposium, experts on graphene-based nanomaterials will discuss the challenges and opportunities of graphene-based nanomaterials for environmental applications and implications. This symposium welcomes theoretical and experimental research that describes recent advances on the environmental implications and applications of graphene-based nanomaterials. The topics that would be covered in this session, but not limited to, are:

1. Applications of graphene-based nanomaterials for environmental assessment, treatment and remediation
 - a. Pollutant removal
 - b. Membrane applications
 - c. Contaminant sensors
2. Environmental fate of graphene-based nanomaterials.
 - a. Toxicity
 - b. Transport and transformation studies
 - c. Environmental fate modeling approaches
 - d. Long term fate in natural and engineered environments

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Indranil Chowdhury

National Research Council Postdoctoral Associate
US EPA ORD
National Exposure Research Lab
Ecosystems Research Division
960 College Station Road
Athens, GA 30605-2700
Office: 706-355-8341
Chowdhury.Indranil@epa.gov

Dermont Bouchard

US EPA ORD
National Exposure Research Lab
Ecosystems Research Division
960 College Station Road
Athens, GA 30605-2700
Office: 706-355-8333
bouchard.dermont@epa.gov

Mark C. Hersam

Prof. of Materials Science & Engineering, Chemistry, and Medicine Dir.
Northwestern Univ. Materials Research Ctr.
2220 Campus Drive, Room 1017A
Evanston, IL 60208-3108, USA
Office: 847-491-2696
m-hersam@northwestern.edu

CALL FOR PAPERS

Environmental Aspects of Sustainable Management of Electronics

At 250th ACS National Meeting & Exposition

Boston, Massachusetts**August 16-20, 2015**Abstract Deadline: **March 16, 2015***Cosponsored with the ACS Committee on Environmental Improvement*

Electronic technologies have been growing rapidly throughout the previous 4 decades. Americans currently own more than 3 billion electronic products that have become critical to their way of life and the growing economy. As the average use-life of electronic products gets shorter, however, obsolete products are stored or discarded at alarming rates. This creates new challenges in the management of electronic waste (e-waste). Americans discard more than 400 million electronic items per year; less than 20 percent is recycled, while 85 percent ends up in landfills. Approximately two-thirds of the electronic devices removed from service remain functional. Although, E-waste represents only two percent of America's trash in landfills, it contributes 70 percent of all toxic waste. Most electronic products contain hazardous heavy metals, plastics, brominated flame retardants, barium and beryllium, and valuable elements such as precious metals and rare earth elements. The risks to human health associated with placing such products into landfills or incinerators where these hazardous elements can enter the air and water streams are high. Hence, there is increasing challenge of reducing the use of virgin materials, recovering useful elements from the waste and protecting human health and the environment from the harmful effects associated with the unsafe handling and disposal of these products (*National Strategy for Electronic Stewardship, NSES*). Scientific research and technological developments is needed for the designing of greener electronics that minimize environmental impacts across the entire lifecycle of the products and promotes consumer awareness. Electronics design and manufacturing that is innovative, flexible and pragmatic could transform the industry's energy savings, reduce emissions and conserve resources. Innovative solutions that integrate electronics manufacturing and recycling would allow Americans to sustainably manage the electronics used today, while simultaneously promoting novel and innovative technologies of the future to meet market challenges (*NSES*).

The topics that would be covered in this session are, but are not limited to:

- Reduce Risk in Recycling Technology
- Environmental Impact of E-Waste
- Rare earth metals in electronics
- Reduction of end-of-life impacts of electronics on the environment
- Green design of electronic products for extended use
- LCA and other assessment tools for the electronic industry
- Metals Nano particles

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

E. Sahle Demessie, Ph.D.
US EPA, Office of Research and Development
Tel: (513) 569-7739
Email: sahle-demessie.endalkachew@epa.gov

Souhail R. Al-Abed, Ph.D.
US EPA, Office of Research and Development
Tel: (513) 569-7849
Email: al-abad.souhail@epa.gov

CALL FOR PAPERS**Environmental Transformation of Nanoparticles:
Processes, Mechanisms, and Ecological Impacts**

At 250th ACS National Meeting & Exposition

Boston, Massachusetts**August 16-20, 2015**Abstract Deadline: **March 16, 2015**

The presence of natural and engineered nanoparticles can affect environmental quality by influencing pollutant fate and transport or acting as pollutants themselves. Upon their formation or release, nanoparticles undergo agglomeration, chemical modification, deposition, and/or organismal uptake within various environmental compartments. This complex suite of transformation processes can alter their chemical identities, surface properties, and bioavailability. The link between these transformation processes and ultimate ecological effects requires further attention in order to predict environmental fate and risks. This symposium aims to address how natural nanoparticles, engineered nanomaterials, and nanomaterial-enabled products transform physically and/or chemically within water, soil, or air environments and influence overall ecological health.

The topics that would be covered in this session are, but are not limited to: characterization of predominant transformation pathways, alterations of surface chemical compositions, solution or atmospheric factors that affect transformation dynamics, chemical influences to particle dispersion, particle deposition to environmental surfaces, interactions between natural or anthropogenic nanoparticles and pollutants, release of nanomaterials from parent products after disposal or use, longevity of nanoparticles in environmental compartments, nanoparticle properties that influence bioavailability or uptake by (micro)organisms, and ecological effects from nanoparticle exposure. Advances in methods for nanoparticle detection, characterization, or quantification are also included.

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Boris Lau, Ph.D.
Department of Civil &
Environmental Engineering
University of Massachusetts
Amherst, MA USA
Email: borislau@umass.edu

Philip Larese-Casanova, Ph.D.
Department of Civil and Environmental
Engineering
Northeastern University
Boston, MA USA
Email: phil@coe.neu.edu

Weile Yan, Ph.D.
Department of Civil and
Environmental Engineering
Texas Tech University
Lubbock, TX USA
E-mail: weile.yan@ttu.edu

Maximiliano Cledon, Ph.D.
Centre for Water, Earth and
Environment
Institut National de la
Recherche Scientifique
Quebec, Quebec Canada
Email:
Maximiliano.cledon@ete.inrs.ca

Kiril Hristovski, Ph.D.
Polytechnic School; Ira A. Fulton
Schools of Engineering
Arizona State University - Polytechnic
Campus
Mesa, AZ USA
Email: kiril.hristovski@asu.edu

CALL FOR PAPERS

Flue Gas Cleaning and Climate Control

At 250th ACS National Meeting & Exposition
“*Innovation from Discovery to Application*”

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Cosponsored by the ACS Division of Energy & Fuels

The world is facing increasing needs of technologies for removal of pollutants in industrial flue gases emitted to the atmosphere in order to avoid environmental hazards as acid rain and smog with severe consequences for the nature, human health and man-made constructions. In addition the issue of climate changes due to the large amount of carbon dioxide also emitted industrially to and accumulated in the atmosphere is now more than ever recognized as a global concern which needs a global solution. The large industries—with a need for pollution control—that will be addressed in this session includes power, cement, glass manufacture and waste incineration plants as well as sea transport units.

The topics that would be covered in this session are, but are not limited to:

- Sulfur removal from flue gases by scrubbing or catalytic conversion
- Selective catalytic or non-catalytic reduction of NO_x in flue gases from stationary sources
- Flue gas cleaning on board ships
- Flue gas cleaning in biomass fired or fossil fuel co-fired plants
- CO₂ capture and disposal in fossil fired plants
- Upgrade of biogas and natural gas by CO₂ removal

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Prof. Rasmus Fehrmann (rf@kemi.dtu.dk) and Assoc. Prof. Anders Riisager (ar@kemi.dtu.dk)
Department of Chemistry
Building 207
Technical University of Denmark,
2800-Kgs.-Lyngby, Denmark

CALL FOR PAPERS**Green Chemistry and the Environment**

At 250th ACS National Meeting & Exposition
"Innovation from Discovery to Application"

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Cosponsored by the ACS Younger Chemists Committee

Chemical processes that utilize 'green' principles are essential toward ensuring a sustainable environment. The field of green chemistry has impacted several areas and has led 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.

The topics that would be covered in this session, but not limited to, are:

- Catalysis
- Alternative energy
- Waste Valorisation
- Green Chemical Synthesis
- Biorenewables
- Safe Industrial practices
- Education in green processes
- Green solvent

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Prof. Rafael Luque
Dept. Química Orgánica
Universidad de Córdoba
Edificio Marie Curie
Ctra Nnal IV-A
Córdoba (Spain) E-14014
E-mail: q62alsor@uco.es

Prof. Alina Balu
Dept. Química Orgánica
Universidad de Córdoba
Edificio Marie Curie
Ctra Nnal IV-A
Córdoba (Spain) E-14014
Email: z82babaa@uco.es

Prof. Sherine Obare
Department of Chemistry
Western Michigan University
3425 Wood Hall
1903 W. Michigan Avenue
Kalamazoo, MI 49008-5413, USA
Email: sherine.obare@wmich.edu

LIST OF POTENTIAL SPEAKERS

KEYNOTES

Professor James H. Clark, Director Green Chemistry Centre of Excellence, University of York, UK.

Professor Christophe Len, University of Compiègne – UTC, France

Professor James A. Dumesic, University of Wisconsin-Madison, Madison, WI, USA

INVITED ORAL CONTRIBUTIONS

Professor Carol S.K. Lin, City University of Hong Kong, Hong Kong

Professor George W. Huber, University of Massachusetts-Amherst, Boston, USA

Professor James C. Liao, University of California Los Angeles, Los Angeles, CA

Dr. John Leazer, U.S. Environmental Protection Agency, Cincinnati, OH, USA

Dr. Michael J. Krische, University of Texas at Austin, Austin, Texas

Dr. John C. Warner, Warner Babcock Institute, Wilmington, MA, USA

Professor Robert Maleczka, Michigan State University, East Lansing, MI, USA

Dr. Rongchao Jin, Carnegie Mellon University, Pittsburgh, PA, USA

Professor Vasile Parvulescu, Bucharest University, Romania

Dr. Aaron Sadow, Iowa State University, Ames, IA, USA

Dr. Jim Hutchison, University of Oregon, Portland, OR, USA

Professor Galen J. Suppes, University of Missouri at Columbia, Columbia, MO, USA

Professor Alina Balu, Avantium Chemicals, Amsterdam, Netherlands.

Professor Rafael Luque, Universidad de Cordoba, Spain

Professor Sherine Obare, Western Michigan University, MI, USA



AMERICAN CHEMICAL SOCIETY
DIVISION OF ENVIRONMENTAL CHEMISTRY
DIVISION OF CATALYSIS SCIENCE AND TECHNOLOGY

Call for Papers

Heterogeneous Catalysis for Environmental and Energy Applications

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

This symposium will highlight new developments in heterogeneous catalysis geared towards protecting the environment and human health. It will focus on application of catalysts to environmental remediation, ranging from vehicle emissions to reducing indoor air pollution to reducing water pollution. The topics that would be covered in this symposium will include, but are not limited to:

- Heterogeneous catalysis for air and water treatment (indoor and outdoor).
- Heterogeneous catalysis for greenhouse gas reduction and usage.
- Heterogeneous catalysis for fuel processing and fuel cells.
- Automotive and combustion exhaust treatment.
- Heterogeneous catalysis for hydrogen production.
- Photocatalysis and electrocatalysis for environmental protection.
- Catalytic membrane materials for separation and reaction.
- Catalytic hydrodechlorination.

Please submit your abstracts using (<http://abstracts.acs.org>). Any general inquiries should be directed to Dr. Alexander Orlov.

Symposium Organizers:

Prof. Alexander Orlov, Materials Science and Engineering Department, SUNY Stony Brook.
Email: alexander.orlov@stonybrook.edu

Dr. Aditya (Ashi) Savara, Oak Ridge National Laboratory. Email: savaraa@ornl.gov

Dr. Shen Zhao, Department of Chemistry, University of Illinois at Urbana-Champaign.
Email: shenzhao@illinois.edu

Call for Papers **Division of Environmental Chemistry**

Cosponsored with Agrochemicals Division

American Chemical Society, 250th National Meeting, August 16-20, 2015
Boston, MA, USA

Hydrothermal carbonization: possibilities and limits for feedstocks, processes and applications

Purpose of Symposium

Hydrothermal carbonization (HTC) is a promising technology to convert agricultural residues, industrial and municipal wastes to innovative material, energy or environmental products. Its chemistry offers a huge potential to influence product characteristics on demand and produce designer carbon materials for a variety of applications from environmental sorbents, innovative energy storage, and soil amendments. This symposium will review recent developments, driven by both fundamental research and applied technology. Researchers from diverse disciplines ranging from chemists, material and chemical engineers to agricultural and soil scientists are invited to submit papers. Companies in solid waste, wastewater treatment as well as those in the agricultural and energy industries with feasibility studies or full-scale technological applications are also invited to present their experiences. The symposium will offer a

platform for discussions across disciplines and between researchers and practitioners. Topics covered in this session include, but are not limited to:

Suggested Topics

- HTC production technology
- HTC reaction chemistry and engineering
- Innovative applications of HTC products and byproducts
- Energy production
- Economics of HTC applications
- Scale-up/full-scale applications
- Life cycle assessment
- Regulatory aspects

Abstract deadline: March 16, 2015. Submit short abstracts (150 words or less) using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>.

For further information, contact the organizers

Kyoung S. Ro, USDA-ARS, Florence, SC, USA, +1-843-669-5203 (Ext. 107), kyoung.ro@ars.usda.gov

Judy A. Libra, Leibniz Institute for Agricultural Engineering (ATB), Potsdam, Germany, +49-331-5699-856, jlibra@atb-potsdam.de

SeChin Chang, USDA-ARS, New Orleans, LA, USA, +1-504-286-4487, sechin.chang@ars.usda.gov

Charles Coronella, University of Nevada, Reno, NV, USA, +1-775-453-0709, coronella@unr.edu

CALL FOR PAPERS

Microorganism-Membrane Interactions: Towards Understanding Pathogen Removal and Membrane Biofouling

ACS Division of Environmental Chemistry-AEESP co-sponsored symposium
250th ACS National Meeting
Boston, MA
August 16-20, 2015

The symposium is envisioned as an interdisciplinary forum for discussing issues at the interface of environmental microbiology and membrane science. Contributions are welcome that involve any of the broad range of microorganisms – from viruses to bacteria to larger pathogens. Similarly, the scope of the symposium is not limited to a particular type of membrane, membrane process or application. Research on porous and salt-rejecting membranes; on applications such as drinking water purification, wastewater treatment and water reuse; and on membrane processes including but not limited to MBRs, membrane-based pathogen detection, and osmotic processes, is within the purview of the symposium. Example specific topics include: 1) microorganism removal by membranes, 2) membrane-based sample concentration for pathogen detection, 3) evaluation of membrane integrity with respect to microbial contaminants, 4) membrane biofouling: initiation, growth, composition and morphology of biofilms, 5) physicochemical and microbiological methods of controlling membrane biofouling, 6) novel biofouling-resistant membrane materials. Authors are asked to indicate their preference for an oral or poster presentation.

Organizers:

Dr. Helen Nguyen
Department of Civil & Environmental Engineering, University of Illinois at Urbana-Champaign
thn@illinois.edu

Dr. Vlad Tarabara
Department of Civil & Environmental Engineering, Michigan State University
tarabara@msu.edu

Dr. Irene Xagorarakis
Department of Civil & Environmental Engineering, Michigan State University
xagorara@egr.msu.edu

Abstracts should be submitted on-line on the ACS's Meeting Abstracts Programming System (MAPS): <http://maps.acs.org>
Click on ENVR, select this symposium topic and follow instructions to input 150-word abstract.
Deadline for on-line abstract submission is March 16, 2015

If you have problems with abstract submission, please contact one of the organizers.

CALL FOR PAPERS

Nano-Enabled Environmental Technologies

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Financially supported by Boston University -- Materials Science & Engineering.

Nano-enabled technologies offer great promise for solving many environmental challenges. From bimetallic catalysts to heterogeneous adsorbents to nanosensors and more, nanomaterials contribute to the development of versatile, simple, inexpensive and highly efficient technologies with applications ranging from pollution prevention and remediation to detecting and monitoring unique environmental contaminants. This symposium aims to explore the latest research and development of novel nanotechnologies, which utilize nanomaterials as the main functional element that defines, improves, or enables a solution to an environmental problem.

The topics encompassed by this session include, but are not limited to, nano-enabled technologies for:

- a) water and wastewater treatment and remediation;
- b) air pollution control;
- c) clean energy production;
- d) contaminant detection and sensing;
- e) environmental health and safety applications;
- f) agricultural and food applications;
- g) hazardous waste minimization and treatment.

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Kiril Hristovski, Ph.D.
The Polytechnic School
Ira A. Fulton Schools of
Engineering
Arizona State University
Mesa, AZ
USA

Email: kiril.hristovski@asu.edu

Jillian Goldfarb, Ph.D.
Department of Mechanical Engineering
Division of Materials Science and
Engineering
Boston University
Boston, MA
USA

Email: jilliang@bu.edu

Kyle Doudrick, Ph.D.
Department of Civil and
Environmental Engineering and Earth
Sciences
University of Notre Dame
Notre Dame, IN
USA

E-mail: kdoudrick@nd.edu

CALL FOR PAPERS**New Challenges in Water Quality, Treatment, Reuse and Sustainability:
Chemistry and Application of Advanced Oxidation Processes for Removal of
Contaminants of Concern and Transformation Products**

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16 – 20, 2015

Abstract Deadline: **March 16, 2015**

Following the great success of the last symposium in San Francisco in Aug 2014 and the current high activity of advanced oxidation processes (AOPs) research, we would like to invite you to participate to a new symposium on “New Challenges in Water Quality, Treatment, Reuse and Sustainability: Chemistry and Application of Advanced Oxidation Processes for Removal of Contaminants of Concern and Transformation Products.”

AOPs, which are based on the generation of highly reactive radical species (e.g., hydroxyl, peroxy, superoxide, sulfate, singlet oxygen) have shown great potential for the removal of contaminants of concern and for the inactivation of pathogens. Water reuse and water conservation are areas in which AOPs can contribute to break *new frontiers*. This symposium will focus on the latest advances in the underlying chemistry and on the applications of AOPs, alone or coupled with other technologies, for the removal of contaminants and pathogens of concern, for improving water quality, promoting water reuse and water sustainability. Examples of such contaminants include endocrine disrupting chemicals, pharmaceuticals, personal care products, cyanotoxins, disinfection byproducts, and difficult to treat viruses. Papers on the chemistry of free radicals, fate of contaminants (particularly those in the CCL3 - Contaminant Candidate List 3), removal efficacy, mechanistic modeling, toxicity of byproducts, engineering design, and new application and development of AOPs are invited. We are also interested on new topics dealing with treatment of wastewater from hydrofracking operations, direct potable reuse, and water disinfection and treatment in developing regions.

The topics that may be covered in this session include, but are not limited to:

- Heterogeneous catalysis and photocatalysis
- UV/UVLEDs hydrogen peroxide and ozone
- Sonolysis
- Electron beams
- Nanotechnology-based processes
- Combined AOP/physical/biological processes
- Fenton/PhotoFenton and Fenton-like processes
- Catalytic ozonation
- Chemical oxidation
- Persulfate, peroxymonosulfate
- Photo-activated C60
- Other solar-driven processes

Please submit your abstracts using the ACS Abstract Submission System (PACS) (<http://abstracts.acs.org>).

Any other inquiries should be directed to:

Gianluca LI PUMA, Environmental Nanocatalysis & Photoreaction Engineering, Department of Chemical Engineering, Loughborough University, Loughborough LE11 3TU, United Kingdom. Phone: +44 1509 222-510, e-mail: g.lipuma@lboro.ac.uk

Dionysios (Dion) D. DIONYSIOU, Environmental Engineering and Science Program, 705 Engineering Research Center, University of Cincinnati, Cincinnati, Ohio 45221-0012. Phone: (513) 556-0724, e-mail: dionysios.d.dionysiou@uc.edu

Kevin O'SHEA, Department of Chemistry and Biochemistry, Florida International University, Miami, FL 33199. Phone: (305) 348-2455, email: osheak@fiu.edu

Daisuke MINAKATA, Department of Civil and Environmental Engineering, Michigan Technological University, Houghton, MI 49931. Phone: (906) 487-1830, Email: dminakat@mtu.edu

Regina de Fatima Peralta Muniz MOREIRA, Department of Chemical and Food Engineering, Federal University of Santa Catarina, Florianópolis, Brazil. Phone: +55 48 3721-2536, Email: regina@enq.ufsc.br

CALL FOR PAPERS

**Next Generation Nanomaterials: Advances and Perspectives
for Biomedicine, Energy, and Environmental Protection**

At 250th ACS National Meeting & Exposition
"Innovation from Discovery to Application"

Boston, Massachusetts, USA
August 16 – 20, 2015

Abstract Deadline: **March 16, 2015**

Nanomaterial has been investigated for decades as one of the major platforms to tackle the toughest challenges including the healthcare issue, energy crisis, and environmental protection. This symposium aims to offer a panorama featuring up-to-date images of innovations made recently from both fundamental science and applied engineering aspects highlighting major advances in the fields of nanotechnology. Most importantly, we strongly encourage and welcome the new thoughts and perspectives about the future direction of nanomaterials and their applications in addressing these long-existed and emerging global issues. Experts in all the related fields (materials science, environmental engineering, nanotechnology, and medicine) from industry, academia, and governmental research laboratories and agencies will discuss the challenges and opportunities in translating the potentials of nanotechnology for real applications.

The topics that would be covered in this session are:

- Nano-Medicine
- Nano-Materials for Decontamination
- Nanotechnology in Solar Fuel Production

Please submit your abstracts before **March 16, 2015** using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Jie Song
Georgia Institute of Technology and Emory
University School of Medicine
Department of Biomedical Engineering
Phone: 404-778-3214
Email: jsong7@emory.edu

Jiaqi Mi
Georgia State University
Department of Chemistry
Phone: 404-432-3608
Email: jmi1@gsu.edu

Keynote Speakers to be announced soon.

CALL FOR PAPERS

Reclamation, Remediation, Restoration: Novel Approaches to Environmental Challenges

At 250th ACS National Meeting & Exposition

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

Cosponsored by the ACS Agrochemicals Division

This session focuses on the reclamation, remediation, and restoration of environmental media (surface/ground water, soils, and sediments) contaminated with legacy pollutants (e.g., dioxins, PAHs, and heavy metals) and contaminants of emerging concern (e.g., PFASs, PPCPs, PDBEs, pesticides, fracking fluids, and nanoparticles). Topics covered in this symposium will include (but are not limited to):

- Advances in abiotic (e.g., ozone, sonochemistry, oxidation, reduction) and biotic in situ remediation technologies
- Investigation into the bioavailability, exposure pathways, and transport of contaminants
- Development and implementation of strategic uses of municipal, industrial, and manufacturing wastes (e.g., biosolids, mine tailings) and the resulting environmental implications
- From bioassays to spectrometry: novel methods in the detection and quantitation of pollutants
- Monitoring techniques for assessing remediation progress: active and passive samplers to non-targeted bioanalytical tools
- Celebrating success: case studies highlighting promising deployments of next generation approaches in the reclamation, remediation, or restoration of contaminated sites
- Bridging the gap between science and policy: identifying future priorities

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Linda S. Lee, Ph.D.
Department of Agronomy
Purdue University
915 West State Street
Lilly Hall of Life Sciences
West Lafayette, IN 47907
(765) 494-8612
lslee@purdue.edu

Michael L. Mashtare, Ph.D.
Department of Agronomy
Purdue University
915 West State Street
Lilly Hall of Life Sciences
West Lafayette, IN 47907
(765) 409-6290
mmashtare@purdue.edu

Laurel A. Royer, Ph.D.
Exponent, Inc.
1 Clock Tower Place, Suite 150
Maynard, MA 01754
(978) 461-4612
lroyer@exponent.com

CALL FOR PAPERS**Resource Recovery and Contaminant Elimination
in Waste Streams of Increasing Concern**

At 250th ACS National Meeting & Exposition

Boston, Massachusetts**August 16-20, 2015**Abstract Deadline: **March 16, 2015***Cosponsored by Association of Environmental Engineering and Science Professors (AEESP)*

This symposium focuses on resource recovery from and contaminant elimination in waste streams of increasing concern. For instance, human urine accounts for approximately 1% of domestic wastewater by volume, yet urine contributes the majority of nitrogen, phosphorus, and pharmaceutical micropollutants to wastewater by mass. As such, there are tremendous opportunities to recover nutrients from urine for beneficial use as fertilizer while concurrently reducing the release of pharmaceutical micropollutants to the environment. Examples of other waste streams that hold great potential for resource recovery and reduction of contaminant release to the environment include produced and flowback water, brine and membrane concentrate, landfill leachate, and anaerobic digestion liquors. An inherent challenge for many waste streams is recovering the chemical of interest in a useable or valuable form, while also separating the target chemical from other contaminants. This symposium will serve as a forum for new research results that advance resource recovery and holistic management of contaminants of emerging concern. Foremost, the research presented in this symposium must make clear that it advances the new paradigm of resource recovery from complex waste streams rather than the conventional approach of contaminant removal.

The topics that would be covered in this session include, but are not limited to:

- Laboratory and test bed treatment studies, and process modeling;
- Life cycle assessment of resource recovery from waste streams;
- Nutrient recovery from source-separated human urine and anaerobic digestion liquors;
- Recovery of metals from wastewater, biosolids, landfill leachate, and coal ash;
- Removal or destruction of pharmaceuticals and micropollutants in waste streams to aid resource recovery;
- Identification of critical materials, such as rare earth elements, and recovery approaches needed to ensure future sustainable society.

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Treavor H. Boyer, Ph.D.

Associate Professor
Department of Environmental Engineering Sciences,
Engineering School of Sustainable Infrastructure &
Environment (ESSIE), University of Florida
Phone: (352) 846-3351, Email: thboyer@ufl.edu

Ching-Hua Huang, Ph.D.

Professor
School of Civil and Environmental Engineering
Georgia Institute of Technology
Phone: (404) 894-7694
Email: ching-hua.huang@ce.gatech.edu

Sensing of Environmentally Relevant Contaminants

Sponsored by the Division of Environmental Chemistry and Agrochemicals Division
250th American Chemical Society (ACS) National Meeting & Exposition
Boston, Massachusetts
August 16-20, 2015

Abstract Deadline: March 16, 2015

The evolving nature of environmental challenges and regulations are driving researchers to explore new methods of sensing to detect the presence of a growing number of contaminants. Importantly, these new sensing methods must be highly sensitive to meet increasingly stringent regulatory limits; and selective in order to detect trace levels of the target contaminant in diverse water matrices. In addition, there is a drive towards *in-situ* sensing, where results can be monitored continuously and in real time. Our symposium will focus on new and emerging sensing methods used for the in-situ detection of contaminants in water, soil and air. Examples include, but are not limited to, 1) novel sensor development for the quantification of organic and inorganic contaminants and pathogens; 2) linking sensor data to environmental risk; 3) sensor network design and implementation for environmentally-relevant contaminants. Both applied and fundamental papers are encouraged. Authors are asked to indicate their preference for an oral or poster presentation.

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings.

Organizers:

David Jassby
Department of Chemical and Environmental Engineering, UC Riverside
djassby@engr.ucr.edu

Brian Chaplin
Department of Chemical Engineering, University of Illinois at Chicago
bpchaplin@gmail.com

CALL FOR PAPERS

Status and Trends of Biological and Persistent Organic Chemicals in the Great Lakes

At 250th ACS National Meeting & Exposition
"Innovation from Discovery to Application"

Boston, Massachusetts

August 16-20, 2015

Abstract Deadline: **March 16, 2015**

The fate, behavior, and trends of biological and persistent chemicals is of critical importance to understanding the potential for environmental degradation and the health effects to humans and wildlife in the Great Lakes. This session will focus on the temporal and spatial trends of environmental and biologically-mediated contaminants (nutrients, harmful algal blooms, legacy and emerging contaminants) in the air, water, sediment, and wildlife of the Great Lakes. The symposium will evaluate the current state of knowledge and assess the past and future trends of these contaminants in the Great Lakes ecosystem.

The topics that would be covered in this session are, but are not limited to:

- Great Lakes
- Persistent Organic Contaminants
- Harmful Algae Blooms
- Nutrients
- Temporal/Spatial Trend Analysis
- Biological Contaminants
- Monitoring and Treatment of Cyanotoxins and Persistent Organic Contaminants

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

James J. Pagano
Environmental Research Center
Department of Chemistry
403B Shineman Center
SUNY at Oswego
Oswego, NY 13126
E-mail: james.pagano@oswego.edu

Dionysios (Dion) D. Dionysiou
Dept. of Biomedical, Chemical and Environmental Engineering
705 Engineering Research Center
University of Cincinnati
Cincinnati, OH 45221-0012
Email: dionysios.d.dionysiou@uc.edu

CALL FOR PAPERS

Using Passive Sampling Techniques to Detect Organic Contaminants

At 250th ACS National Meeting & Exposition
"Innovation from Discovery to Application"

Boston, Massachusetts

August 16-20, 2015

Cosponsored by ACS Division of Organic Chemistry, ACS Agrochemicals Division, and Association of Engineering and Environmental Science Professors

Passive sampling is an increasingly popular tool for obtaining time-integrated, spatially-resolved measurements of contaminants in air and water. A wide range of sampling matrices have been used for passive sampling, with differing degrees of selectivity. While passive sampling has become increasingly accepted as an innovative approach for measuring many legacy contaminants, the application of this tool to measure contaminants of emerging concern (CECs) is a new area of study. In this session, we intend to discuss recent advances in passive sampling to detect both legacy compounds and CECs in environmental matrices, primarily air and water. The effectiveness of different sampling methods and matrices for organic pollutant monitoring and risk assessment will be discussed, as will application of passive sampling methods to study their sources, transport mechanisms, and fate.

The topics that would be covered in this session are, but are not limited to:

- Using passive sampling to measure organic contaminants in air in indoor and outdoor environments
- Comparing the effectiveness of different passive sampling techniques for monitoring specific groups of organic pollutants
- Coupling passive sampling techniques with non-target and biological analysis
- Using passive sampling to measure legacy and emerging contaminants in water, including wastewater, porewater, and surface water,
- Using passive sampling to analyze spatial gradients and of organic pollutants
- Passive sampling to determine the direction and magnitude of contaminant flux between two matrices

Abstract Deadline: **March 16, 2015.** Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at <http://maps.acs.org>. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Rainer Lohmann, Ph.D.
University of Rhode Island
rlohmann@mail.uri.edu

Carrie McDonough
University of Rhode Island
carriemc@my.uri.edu