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Education

B.S. 1984 Chemistry & Mathematics, Georgia College & State University

Ph.D. 1989 Physical Organic Chemistry, Emory University

Experience

1/2014 Arthur Sease Williams Professor of Chemistry
to Department of Chemistry and Biochemistry, University of South Carolina, Columbia, SC
Present

12/1989 Research Chemist, National Exposure Research Laboratory,
to U.S. Environmental Protection Agency, Athens, GA.
12/2013

3/1989 Postdoctoral Research Associate, Environmental Research Laboratory,
to U.S. Environmental Protection Agency, Athens, GA.
12/1989

Honors and Awards

American Chemical Society (ACS) Award for Creative Advances in Environmental Science & Technology. 2008.

Honorary Doctorate (Doctor of Letters, *honoris causa*), Cape Breton University, Sydney, Nova Scotia, Canada, for 'Research contributions at the forefront of public health issues around drinking water'. 2006.

Arthur Sease Williams Chair in Chemistry, University of South Carolina. 2014-

ACS Expert. (Representing ACS in media requests, panel discussions, opinion pieces, community science cafés, and other public venues on water matters). 2014-2016.

Guest Professor, Central South University, Changsha, China. 2015-2020.

U.S. EPA Scientific and Technological Achievement Award for *Environmental Science & Technology* article, 'Formation of Toxic Iodinated Disinfection By-Products from Compounds Used in Medical Imaging'. 2013. (Level I Award).

U.S. EPA Scientific and Technological Achievement Award for *Analytical Chemistry* review article, 'Water Analysis: Emerging Contaminants and Current Issues'. 2011.

U.S. EPA Scientific and Technological Achievement Award—Honorable Mention—for *Environmental Health Perspectives* article, 'What's in the Pool? A Comprehensive Identification of Disinfection By-Products and Assessment of Mutagenicity of Chlorinated and Brominated Swimming Pool Water'. 2011. *Analytical Chemistry*, Top 20 Most Read Article, 'Water Analysis: Emerging Contaminants and Current Issues'. 2014 (last 12 months).

Analytical Chemistry, Top 10 Most Read Article, 'Environmental Mass Spectrometry: Emerging Contaminants and Current Issues'. 2012.

Journal of Environmental Monitoring, Top 10 Most Accessed Article, ‘The Role of GC-MS and LC-MS in the Discovery of Drinking Water Disinfection By-Products’. 2011.

Analytical Chemistry, Top 10 Most Read Article, ‘Water Analysis: Emerging Contaminants and Current Issues’. 2011-2012.

U.S. EPA Scientific and Technological Achievement Award for ‘Concentration, Chlorination, and Chemical Analysis of Drinking Water Disinfection Byproduct Mixtures Health Effects Research: U.S. EPA’s Four Lab Study’, 2010. (Level I Award).

Environmental Science & Technology, Excellence in Review Award. 2010.

U.S. EPA Scientific and Technological Achievement Award for *Environmental Science & Technology* article, ‘Drowning in Disinfection Byproducts? Assessing Swimming Pool Water’. 2009.

U.S. EPA Scientific and Technological Achievement Award for *Mutation Research* article, ‘Occurrence, Genotoxicity, and Carcinogenicity of Regulated and Emerging Disinfection By-Products in Drinking Water: A Review and Roadmap for Research’. 2009.

U.S. EPA Scientific and Technological Achievement Award—Honorable Mention—for *Analytical Chemistry* review article, ‘Water Analysis: Emerging Contaminants and Current Issues’. 2009.

Analytical Chemistry, Top 10 Most Read Article April-June 2009 and Top 20 Most Cited Article from 2009-2012 (‘Water Analysis: Emerging Environmental Contaminants and Current Issues’). 2009-2012.

Chemist of the Year, Northeast Georgia Section of the American Chemical Society. 2008.

Mutation Research, Top 10 Cited Author in 2007 and 2008 (‘Occurrence, Genotoxicity, and Carcinogenicity of Regulated and Emerging Disinfection By-Products in Drinking Water: A Review and Roadmap for Research’). 2007 and 2008.

Analytical Chemistry, Top 20 Most Accessed Articles 2007 (‘Water Analysis: Emerging Environmental Contaminants and Current Issues’, 2nd most accessed *Anal. Chem.* article in 2007).

U.S. EPA, National Exposure Research Laboratory Special Achievement Award (Leader in the Environmental Research Community). 2006.

Environmental Science & Technology, Top 20 Most Accessed Articles in 2007 (‘Drowning in Disinfection Byproducts? Assessing Swimming Pool Water’, 8th most accessed *ES&T* article in 2007). 2007.

Environmental Science & Technology, Top 20 Most Accessed Articles in 2006 (‘Occurrence of a New Generation of Disinfection Byproducts’, 16th most accessed *ES&T* article in 2006). 2006.

Analytical Chemistry, Top 20 Most Accessed Articles in 2005 and 2006 (‘Water Analysis: Emerging Contaminants and Current Issues’, 2nd most accessed *Anal. Chem.* article in 2006 and 3rd most accessed in 2005). 2005 and 2006.

American Chemical Society (Northeast Georgia Section) Chemist of the Year Award for Service. 2004.

U.S. EPA Scientific and Technological Achievement Award for *Analytical Chemistry* review article, ‘Water Analysis: Emerging Contaminants and Current Issues’ and *Trends in Analytical Chemistry* review article, ‘Disinfection By-Products and Other Emerging Contaminants in Drinking Water’. 2004.

U.S. EPA Scientific and Technological Achievement Award—Honorable Mention—for journal article, ‘Development of a Research Strategy for Integrated Technology-Based Toxicology Studies on Drinking Water Disinfection ByProducts.’ 2004.

U.S. EPA Scientific and Technological Achievement Award for *Environmental Science & Technology* article, ‘Tribromopyrrole and Other DBPs Produced by the Disinfection of Drinking Water Rich in Bromide.’ 2004.

Environmental Science & Technology, Top 20 Most Accessed Articles in 2004 (‘Halonitromethane Drinking Water Disinfection By-Products: Chemical Characterization and Mammalian Cell Cytotoxicity and Genotoxicity’, 13th most accessed *ES&T* article in 2004). 2004.

Analytical Chemistry, Top 20 Most Accessed Articles in 2004 (‘Environmental Mass Spectrometry: Emerging Contaminants and Current Issues’, 9th most accessed *Anal. Chem.* article in 2004). 2004.

U.S. EPA Bronze Medal. 2003.

U.S. EPA Scientific and Technological Achievement Award for *Environmental Science & Technology* article, ‘Hydrogen Abstraction and Decomposition of Tribromonitromethane and Other Trihalo

Compounds by GC/MS.’ 2003.

U.S. EPA Scientific and Technological Achievement Award for *Analytical Chemistry* review article, ‘Environmental Mass Spectrometry: Emerging Contaminants and Current Issues.’ 2003.

U.S. EPA Scientific and Technological Achievement Award Honorable Mention for *Ozone: Science & Engineering* article, ‘Application of DNPH Derivatization with LC/MS to the Identification of Polar Carbonyl Disinfection By-Products in Drinking Water.’ 2002.

U.S. EPA Scientific and Technological Achievement Award for *Environmental Science & Technology* articles, ‘Identification of New Ozone Disinfection Byproducts in Drinking Water’ and ‘Identification of New Drinking Water Disinfection Byproducts Formed in the Presence of Bromide.’ 2001.

U.S. EPA Bronze Medal (to Athens Drinking Water Research Team for ‘Providing a Scientific Basis for Solving the DBP Problem’). 2000.

U.S. EPA Science Achievement Award in Chemistry. (Awarded jointly by the U.S. EPA and the American Chemical Society). 2000.

U.S. EPA Scientific and Technological Achievement Award for *Analytical Chemistry* review article, ‘Water Analysis.’ 2000.

U.S. EPA Scientific and Technological Achievement Award—Honorable Mention for journal article, ‘Identification of Drinking Water Contaminants in the Course of a Childhood Cancer Investigation in Toms River, New Jersey.’ 2000.

U.S. EPA Letter of Commendation for support to the Office of Water in the development of the Stage I Disinfectants/Disinfection By-Products Rule and Interim Enhanced Surface Water Treatment Rule. 1999.

Sigma Xi Research Paper Award (University of Georgia Chapter) for John Wiley Encyclopedia article ‘Drinking Water Disinfection By-Products.’. 1998.

U.S. EPA Scientific and Technological Achievement Award for John Wiley Encyclopedia review article, ‘Drinking Water Disinfection By-Products.’ 1998.

U.S. EPA Scientific and Technological Achievement Award for journal article, ‘Identification of Bromohydrins in Ozonated Waters.’ 1997.

U.S. EPA Science Achievement Award in Water Quality. (Awarded jointly by the U.S. EPA and the Society of Environmental Toxicology and Chemistry). 1997.

American Men and Women of Science. 1992.

Professional Activities

• Elected/Appointed Offices Held

- ▶ Councilor, American Chemical Society, Northeast Georgia Section. 2013-2019.
- ▶ Editorial Advisory Board, *Environmental Science & Technology*. 2009-
- ▶ Chair, Awards Committee for *Environmental Science & Technology* Best Papers of the Year. 2009 and 2010.
- ▶ Awards Committee for *Environmental Science & Technology* Best Papers of the Year. 2009, 2010, 2011, 2012, 2013, 2014.
- ▶ Associate Editor, *Water Research*. 2009-
- ▶ Editorial Board, *Journal of Hazardous Materials*. 2014-

- ▶ Editorial Board, *Rapid Communications in Mass Spectrometry* (Wiley). 2006-
- ▶ Editorial Advisory Board, *Environmental Science and Pollution Research*. 2009-
- ▶ Editorial Advisory Board, *Journal of Environmental Sciences*. 2015-
- ▶ Associate Editor, *Encyclopedia of Analytical Chemistry* (Wiley). 2007-2010.
- ▶ Editorial Advisory Board, Comprehensive Analytical Chemistry book series (Elsevier). 2005-
- ▶ Organizing Committee, International Workshop on Tandem Mass Spectrometry. 2006-
- ▶ Awards Committee, American Society for Mass Spectrometry (ASMS). 2008-2010.
- ▶ Audit Committee, American Society for Mass Spectrometry (ASMS). 2007-2008.
- ▶ Nominations Committee, American Society for Mass Spectrometry (ASMS). 2006-2007.
- ▶ Treasurer, American Society for Mass Spectrometry (ASMS). 2002-2004. As Treasurer, also served on the Board of Directors for ASMS.
- ▶ Chair, Northeast Georgia Section of the American Chemical Society. 2003.
- ▶ Secretary, Northeast Georgia Section of the American Chemical Society. 2004-2007.
- ▶ Chair-Elect, Northeast Georgia Section of the American Chemical Society. 2002.
- ▶ National Chemistry Olympiad Coordinator, Northeast Georgia Section of the American Chemical Society. 2003-2004. In 2003, began the first participation of Northeast Georgia Section in this program.
- ▶ President, University of Georgia Chapter of Sigma Xi Scientific Research Society. 2000-2001.
- ▶ President-Elect, University of Georgia Chapter of Sigma Xi Scientific Research Society. 1999-2000.
- ▶ Environmental Interest Group Chairman, American Society for Mass Spectrometry (ASMS). 1999, 2000, and 2001.
- ▶ Program Review Committee, American Society for Mass Spectrometry. 2000, 2001, and 2003.
- ▶ Measurements and Standards Committee, American Society for Mass Spectrometry. 2000-2002.
- ▶ Education Committee, American Society for Mass Spectrometry. 1997-1998.
- ▶ Chairman, Research Advisory Board, U.S. EPA, National Exposure Research Laboratory, Athens, GA. 1996-1998.

- **International, National, and Other Committees/Expert Panels**

- ▶ Scientific and Technological Board, World Joint Programming Initiative (JPI) for ‘Water Challenges for a Changing World’. European Commission, 2014-2015.
- ▶ Expert Panel, Next Generation Nano Governance Workshop. Washington, D.C. 2015.
- ▶ Scientific Advisory Committee, NIREAS Cyprus International Water Institute, 2010-
- ▶ National Sciences and Engineering Research Council of Canada (NSERC) Industrial Research Chair Committee, Source Water Quality Monitoring and Advanced/Emerging Technologies for Drinking Water Treatment. Toronto, Canada. 2012 and 2014.
- ▶ National Academy of Sciences Expert Panel, Emerging Contaminants: Opportunities for a National Research Council Assessment. Washington, D.C. 2011.
- ▶ U.S. EPA Office of Water, Contaminant Candidate List-3 (CCL-3) Regulatory Determination Workgroup, 2010-2012.
- ▶ U.S. EPA Office of Water Unregulated Contaminant Monitoring Rule-3 (UCMR-3) Workgroup, 2011-2012.
- ▶ Scientific Advisory Board, European Union sponsored project on ‘Health Impacts of Long-Term Exposure to Disinfection By-Products in Drinking Water (HIWATE)’, 2007-2012.
- ▶ *Environmental Science & Technology* Committee, Best Video Contest in honor of the 40th anniversary of Earth Day, ‘How does chemistry help you be green?’ 2010.
- ▶ Unsolicited Proposals Committee, Water Research Foundation, 2009-2010.
- ▶ Project Advisory Committees for the American Water Works Association Research Foundation (now called the Water Research Foundation):
 - ‘Development and Application of a Total Nitrosamine Assay for Disinfected Waters’. 2008-2011.
 - ‘Exploring Formation and Control of Emerging DBPs in Treatment Facilities: Halonitromethanes and Iodo-Trihalomethanes.’ 2006-2011.
 - ‘Characterization of TOX Produced During Disinfection Processes.’ 2001-2005.
 - ‘Application of ESI-FAIMS-MS to Drinking Water Contaminant and Disinfection By-Product Analysis.’ 1999-2001.
 - ‘Impacts of Ozonation and Hydroxyl Radicals on Amino Acids.’ 1992-1994.
- ▶ U.S. EPA Technical Qualifications Board (Promotion panel) for Office of Research and Development (ORD) promotion candidates. 2005, 2007, 2009, 2010, 2011, 2012.
- ▶ National Exposure Research Laboratory lead for Contaminant Candidate List (CCL) Research Planning Team for new Chemical Safety for Sustainability (CSS) research program. 2011.
- ▶ Expert panel, U.S. EPA Office of Water and Office of Science Policy Chloramine Criteria Document, 2008.
- ▶ Expert panel, U.S. EPA Office of Water, Contaminant Candidate List (CCL-3). 2006-2009.

- ▶ International Water Association World Congress Scientific Committee, 2007.
- ▶ DBP Issue Group, American Water Works Association Research Foundation (AWWARF), for development of new ideas for future AWWARF research projects, 2007.
- ▶ American Water Works Association Academic Achievement Award Committee, 2003-2006.
- ▶ American Water Works Association Health Effects Research Committee, 2005-2006.
- ▶ Advisory Panel, Water Environment Federation (WEF), for development of White Paper on Analytical Technologies for Contaminants of Emerging Concern, 2006-2007.
- ▶ DBP Theme Team and CCL Theme Team, for long range planning of EPA's research on DBPs and CCL contaminants. 2006.
- ▶ U.S. EPA Office of Water meeting on New Issues Involving Chloramination and the Upcoming Stage 2 DBP Rule. 2004. (Invited).
- ▶ Expert Advisory Panel, for Natural Sciences and Engineering Research Council (NSERC) of Canada Strategic Grant, 'Exposure Biomarkers for Drinking Water Disinfection By-Products' (PI: Steve Hrudey, University of Alberta, Canada). 1999-2002.
- ▶ National Advisory Board, for National Science Foundation (NSF) Analytical Sciences Digital Library (ASDL, www.asdlib.org). 2001-2006.
- ▶ Steering Committee, U.S. EPA project on 'Integrated Disinfection By-Products Mixtures Research: Toxicological and Chemical Evaluation of Alternative Disinfection Treatment Scenarios'. A collaborative effort between the National Exposure Research Laboratory (NERL), the National Health and Environmental Effects Laboratory (NHEERL), the National Risk Management Research Laboratory (NRMRL), and the National Center for Environmental Assessment (NCEA). 1999-2012.
- ▶ National Science Foundation (NSF) review panel. 2001-2002.
- ▶ Writing Team, U.S. EPA STAR Grant Solicitations (Drinking Water). 1997-2002.
- ▶ Invited participant in EPA's National Health and Environmental Effects Research Laboratory's (NHEERL's) Subcommittee on DBPs for developing a Drinking Water Research Implementation Plan. Committee recommends future health effects research areas and coordinates research planning with related research at the National Toxicology Program (NIH) and the American Water Works Research Foundation. 2001-2002.
- ▶ Reviewer, U.S. EPA External (STAR) Grants in Drinking Water. 1998-2000.
- ▶ Participated in two Stakeholder Meetings sponsored by the U.S. EPA's Office of Water: 1) Linkage Between Research and Regulatory Needs for the Stage 2 DBP Rule and Enhanced Surface Water Treatment Rule (ESWTR), and 2) Adequacy of Microbial (M)/DBP Research to Support Development of Long-Term M/DBP Rules. May and November 1997. (Invited).
- ▶ EPA-Athens representative to the U.S. EPA Issue 19 (Drinking Water) Planning Group. 1993-1995.
- ▶ Local Expert Panel, Workshop on Tools for Drinking Water Protection, Athens, GA. 1997. (Invited).

- **Organized/Chaired the following International Symposia/Workshops**

- ▶ Symposium Organizer/Co-Chair, ‘Analytical Development Relevant to Environmental Exposure and Effects’. Pacifichem Conference. Honolulu, HA. 2014-2015.
- ▶ Program Committee, Micropol & Ecohazard 2015 and the 8th International Water Association (IWA) Specialised Conference on Assessment and Control of Micropollutants/Hazardous Substances in Water. Singapore. 2015.
- ▶ Program Committee, DBP 2014: Disinfection By-Products in Drinking Water. Mülheim, Germany. 2014.
- ▶ Program Committee, Micropol & Ecohazard 2013 and the 8th International Water Association (IWA) Specialised Conference on Assessment and Control of Micropollutants/Hazardous Substances in Water. Zürich, Switzerland. 2012-2013.
- ▶ Session Chair, ‘Current State-of-the-Art on Occurrence and Treatment of Micropollutants and Future Regulations’. International Workshop on Endocrine Disrupting Compounds (EDCs), Pharmaceuticals and Personal Care Products (PPCPs), and Disinfection By-Products (DBPs): Which Monitoring and Treatment Solutions for Water Utilities? Beijing, China. 2011.
- ▶ Symposium Organizer/Co-Chair, ‘Analytical and Environmental Chemistry in Human Health’. Pacifichem Conference. Honolulu, HA. 2009-2010.
- ▶ Program Committee, Micropol & Ecohazard 2011 and the 7th International Water Association (IWA) Specialised Conference on Assessment and Control of Micropollutants/Hazardous Substances in Water. Sydney, Australia. 2010-2011.
- ▶ International Scientific Committee, Micropol and Ecohazard Conference. San Francisco, CA. 2008-2009.
- ▶ Co-Chair, Workshop on Advancing the Science: Childhood Asthma and Environmental Exposures at Swimming Pools. Leuven, Belgium. 2007.
- ▶ Session Organizer/Chair, 20th Annual International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2007.
- ▶ International Scientific Committee, Micropol and Ecohazard Conference. Frankfurt, Germany. 2006-2007.
- ▶ Chair of a new Gordon Research Conference on ‘Drinking Water Disinfection By-Products: Integrating Occurrence and Formation, Exposure, Toxicity, and Epidemiology’. South Hadley, MA. 2006. (Initiated and received approval for this as a new Gordon Research Conference).
- ▶ International Scientific Committee and Session Chair, 34th International Symposium on Environmental Analytical Chemistry. Hamburg, Germany. 2006.
- ▶ Organizing committee, 1st International Workshop on ‘Liquid Chromatography-Tandem Mass Spectrometry for Screening and Trace Level Quantitation in Environmental and Food Samples’. Barcelona, Spain. 2005.
- ▶ Session Organizer/Chair, International Workshop on ‘Optimizing the Design and Interpretation of Epidemiologic Studies to Consider Alternative Disinfectants of Drinking Water’, Raleigh, NC. 2005.
- ▶ Session Organizer/Chair, ‘Environmental Chemistry in 2003: New Problems and Innovative

Solutions'. The 16th International Mass Spectrometry Conference. Edinburgh, Scotland. 2003.

- ▶ Symposium Organizer/Chair, 'Drinking Water Disinfection By-Products: New Exposure, Occurrence, Toxicity, and Epidemiology Studies'. The International Society of Exposure Analysis (ISEA)-International Society of Environmental Epidemiology (ISEE) Joint International Conference, Vancouver, Canada. 2002.
- ▶ Symposium Organizer/Chair, 'Drinking Water Disinfection By-Products (DBPs): Exposure Methods and Epi Studies'. The International Society of Exposure Analysis (ISEA) Annual Conference, Monterey, CA. 2000.
- ▶ Session Chair, 'Disinfection and Disinfection By-Products'. The 7th International Conference of the Israel Society for Ecology and Environmental Quality Sciences on 'Environmental Challenges for the New Millennium'. Jerusalem, Israel. 1999.
- ▶ Organizing Committee, International Workshop on 'Identification of New and Uncharacterized Disinfection By-Products in Drinking Water'. Sponsored by the International Life Sciences Institute. Washington, D.C. 1998.
- ▶ Session Chair, 'Drinking Water Exposures'. The International Society of Exposure Analysis Annual Meeting, Research Triangle Park, NC. 1997.
- **Organized/Chaired the following National/Regional Symposia/Workshops**
 - ▶ Symposium Organizer, 'Emerging Environmental Contaminants'. Southeast Regional American Chemical Society Conference (SERMACS). Columbia, SC. 2015-2016.
 - ▶ Organizing Committee, Gordon Research Conference on Drinking Water Disinfection By-Products. 2014-2015.
 - ▶ Session Organizer/Chair, 'Emerging Environmental Contaminants'. The 63rd ASMS Conference on Mass Spectrometry and Allied Topics. St. Louis, MO. 2015.
 - ▶ Symposium Co-Organizer, 'Analytical Methods for Detecting and Prioritizing Contaminants of Concern'. The 248th American Chemical Society National Meeting. San Francisco, CA. 2014.
 - ▶ Symposium Co-Organizer, 'Women in Environmental Science and Engineering'. The 248th American Chemical Society National Meeting. San Francisco, CA. 2014.
 - ▶ Conference Co-Organizer, Asilomar Conference on 'Mass Spectrometry in Environmental Chemistry, Toxicology, and Health'. Pacific Grove, CA. 2013.
 - ▶ Workshop Co-organizer/Co-Chair, 'Emerging Contaminants in Environmental Research: Hydraulic fracturing fluids and shale gas produced waters - advances, challenges and opportunities using mass spectrometry. The 61st ASMS Conference on Mass Spectrometry and Allied Topics. Minneapolis, MN. 2013.
 - ▶ Symposium Organizer/Co-Chair, 'Emerging Environmental Contaminants: Chemistry and Toxicology'. The 243rd American Chemical Society National Meeting. San Diego, CA. 2012.
 - ▶ Discussion Leader/Session Chair, 'Emerging Contaminants'. The Gordon Research Conference on Environmental Sciences: Water, Holderness, NH. 2012.
 - ▶ Discussion Leader/Session Chair, 'Future in Research on DBPs'. Gordon Research Conference on Drinking Water Disinfection By-Products. South Hadley, MA. 2012.

- ▶ Co-Chair, Workshop on ‘Challenges in Water Safety’. The 60th ASMS Conference on Mass Spectrometry and Allied Topics. Vancouver, Canada. 2012.
- ▶ Symposium Organizer and Chair, ‘Emerging Environmental Contaminants: Advanced Mass Spectrometry Tools for Understanding Their Fate and Transport’. The Southeast Regional American Chemical Society (SERMACS) Conference. Raleigh, NC. 2012.
- ▶ Co-Chair, Workshop on ‘A Unified LC/MS Library for Advancing Research in Environmental Chemistry and Health Sciences’. The 59th ASMS Conference on Mass Spectrometry and Allied Topics. Denver, CO. 2011.
- ▶ Session Organizer/Chair, ‘Environmental Chemistry and Health’. The 59th ASMS Conference on Mass Spectrometry and Allied Topics. Denver, CO. 2011.
- ▶ Workshop Co-organizer/Chair, ‘Screening for Unknowns in our Environment: Identifying “Known-Unknowns”’. The 58th ASMS Conference on Mass Spectrometry and Allied Topics, Salt Lake City, UT. 2010.
- ▶ Symposium Co-organizer/Chair, ‘Legends of Environmental Chemistry’. Two-day invited symposium: the 236th American Chemical Society National Meeting. Philadelphia, PA. 2008.
- ▶ Workshop Organizer/Chair, ‘Signal Suppression in LC-MS Determination of Environmental Contaminants’. The 56th ASMS Conference on Mass Spectrometry and Allied Topics, Denver, CO. 2008.
- ▶ Session Organizer/Chair, ‘The Golden Era of Environmental Mass Spectrometry: Honoring Ron Hites and Bill Budde’. The 55th ASMS Conference on Mass Spectrometry and Allied Topics, Indianapolis, IN. 2007.
- ▶ Session Organizer/Chair, ‘New and Emerging Environmental Contaminants’. The 53rd ASMS Conference on Mass Spectrometry and Allied Topics, San Antonio, TX. 2005.
- ▶ Session Co-organizer/Chair, ‘MS and Chromatography: Essentials for Environmental Analysis’ and ‘Environmental MS Analysis, Diverse Techniques and Media’. The 50th ASMS Conference on Mass Spectrometry and Allied Topics, Orlando, FL. 2002.
- ▶ Symposium Co-organizer/Chair, ‘Elegant Analytical Chemistry Applied to Environmental Problems’. Four-day invited symposium; the 221st American Chemical Society National Meeting, San Diego, CA. 2001.
- ▶ Symposium Co-organizer/Chair, ‘Elegant Analytical Chemistry Applied to Environmental Problems’. Three-day symposium; the 222nd American Chemical Society National Meeting, Chicago, IL. 2001.
- ▶ Symposium Organizer/Chair, ‘Environmental Mass Spectrometry’. The Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Annual Conference, Detroit, MI. 2001.
- ▶ Session Organizer/Chair, ‘Environmental Mass Spectrometry: New Problems, Diverse Approaches’. The 48th ASMS Conference on Mass Spectrometry and Allied Topics, Long Beach, CA. 2000.
- ▶ Co-organizer, ‘Risk Assessment of Disinfection By-Products (DBPs): Considering Unidentified DBPs’ Workshop. This two-day workshop, co-sponsored by the U.S. EPA’s National Center for Environmental Assessment (Cincinnati, OH) and the U.S. EPA’s National Exposure Research Laboratory (Athens, GA), addressed the potential toxicity of, as yet, unidentified chemical by-

products of drinking water disinfection and identified approaches for incorporating these components when estimating risks posed by DBPs. 2000.

- ▶ Organizer/Session Chair, 'Environmental Mass Spectrometry'. The 46th ASMS Conference on Mass Spectrometry and Allied Topics, Orlando, FL. 1998.
- ▶ Symposium Organizer/Chair, 'New Perspectives in Environmental Chemistry: Measurement and Detection'. The 211th American Chemical Society National Meeting, New Orleans, LA. 1996.
- ▶ Session Organizer/Chair, 'Mass Spectrometry in Environmental Research'. The 43rd ASMS Conference on Mass Spectrometry and Allied Topics, Atlanta, GA. 1995.

- **Other Professional Activities**

- ▶ Invited by the National Institute of Standards & Technology (NIST) to submit local EPA DBP library database of mass spectra for inclusion in NIST library release. 1999-2000.
- ▶ Guest Editor, *Journal of Exposure Analysis and Environmental Epidemiology*, journal articles resulting from 'Drinking Water Exposures' session presented at the 1997 International Society of Exposure Analysis Annual Conference. 1998.
- ▶ Serve as a reviewer for scientific journals, including *Environmental Science & Technology*, *Analytical Chemistry*, *Water Research*, *Rapid Communications in Mass Spectrometry*, *Environmental Science and Pollution Research*, *Journal of Hazardous Materials*, *Environmental Toxicology & Chemistry*, *The Journal of Chromatography A*, *Chemosphere*, *Science of the Total Environment*, *The Journal of the American Water Works Association*, *The Journal of Mass Spectrometry*, *The Journal of the American Society for Mass Spectrometry*, *Analytica Chimica Acta*, and *The Journal of AOAC International*. Also serve as a reviewer for National Science Foundation (NSF) proposals, government agency proposals, international government agency-funded proposals (such as proposals to NSERC, the Natural Sciences and Engineering Research Council of Canada and the Swiss National Science Foundation), and state-sponsored proposals.

- **Organizational Affiliations**

- ▶ American Chemical Society. 1983-
- ▶ American Association for the Advancement of Science. 2015-
- ▶ American Water Works Association. 1998-
- ▶ American Society for Mass Spectrometry. 1989-
- ▶ International Ozone Association. 1998-2007.
- ▶ Environmental Division of the American Chemical Society. 1992-
- ▶ Atlanta/Athens Mass Spectrometry Discussion Group. 1992-2013.
- ▶ Society of Sigma Xi. 1990-

Publications (50 Invited)

1. Daiber, E. J., D. M. DeMarini, S. A. Ravuri, H. K. Liberatore, A. A. Cuthbertson, A. Thompson-Klemish, J. D. Byer, J. E. Schmid, M. Z. Afifi, E. R. Blatchley, III, and S. D. Richardson. 2016. Progressive Increase in Disinfection Byproducts and Mutagenicity from Source to Tap to Swimming Pool and Spa Water: Impacts of Human Inputs. *Environ. Sci. Technol.*, ASAP.
2. Wendel, F. M., T. A. Ternes, S. D. Richardson, Duirk, S. E., Pals, J. A., Wagner, E. D., and Plewa, M. J. 2016. *Environ. Sci. Technol. Lett.* 3 (3): 81-84.
3. Richardson, S. D., S. Y. Kimura. 2016. Water Analysis: Emerging Contaminants and Current Issues. *Anal. Chem.* 88, 546-582. (Invited biennial review article).
4. Postigo, C., C. I. Cojocariu, S. D. Richardson, P. J. Silcock, and D. Barcelo. 2016. Characterization of iodinated disinfection by-products in chlorinated and chloraminated waters using Orbitrap based gas chromatography-mass spectrometry. *Anal. Bioanal. Chem.*, 408: 3401-3411. (Article chosen for cover of the journal).
5. Richardson, S. D., and C. Postigo. 2016. A New Technique Helps to Uncover Unknown Peptides and Disinfection By-Products in Water. *J. Environ. Sci.*, 42: 6-8. (Invited highlight article).
6. Russo, D., D. Spasiano, M. Vaccaro, K. Cochran, S. D. Richardson, R. Andreozzi, G. Li Puma, N. M. Reis, and R. Marotta. 2016. Removal of the Major Cocaine Metabolite (Benzoylecgonine) in Wastewater Effluents and Surface Waters by UV254/H₂O₂ Process with a Flow Microcapillary Film Array Photoreactor. *Water Res.*, 89: 375-385.
7. Richardson, S. D., and C. Postigo. 2016. Safe Drinking Water? Effect of Wastewater Inputs and Source Water Impairment and Implications for Water Reuse. In: *Emerging Challenges in Wastewater Reuse: Contaminants, Treatment, and Effects*, Chapter 7, Fatta-Kassinos, D., Dionysiou, D. D., and Kümmerer, K. (eds.); Springer: Heidelberg, pp 155-182. (Invited book chapter).
8. Regli, S., J. Chen, M. Messner, M. S. Elovitz, F. J. Letkiewicz, R. A. Pegram, T. J. Pepping; S. D. Richardson, and M. J. Wright. 2015. Estimating potential increased bladder cancer risk due to increased bromide concentrations in sources of disinfected drinking waters. *Environ. Sci. Technol.*, 49 (22), 13094-13102.
9. Jeong, C. H., C. Postigo, S. D. Richardson, J. E. Simmons, S. Y. Kimura, B. J. Marinas, D. Barcelo, P. Liang, E. D. Wagner, and M. J. Plewa. 2015. Occurrence and Comparative Toxicity of Haloacetaldehyde Disinfection Byproducts in Drinking Water. *Environ. Sci. Technol.*, 49 (23), 13749-13759.
10. Yang, M., X. Zhang, J. Liu, and S. D. Richardson. 2015. Comparative Toxicity of Chlorinated Saline and Freshwater Wastewater Effluents to Marine Organisms. *Environ. Sci. Technol.*, 49 (24), 14475-14483.
11. Gonsior, M., C. L. Mitchelmore, A. Heyes, M. Harir, S. D. Richardson, W. T. Petty, D. A. Wright, and P. Schmitt-Kopplin. 2015. Bromination of marine dissolved organic matter following full scale electrochemical ballast water disinfection. *Environ. Sci. Technol.*, 49 (15): 9048-9055.

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