

**SUSAN D. RICHARDSON**  
**Department of Chemistry and Biochemistry**  
**University of South Carolina**  
**Columbia, SC 29208**  
**Phone: 803-777-6932; Fax: 803-777-9521**  
**email: [richardson.susan@sc.edu](mailto:richardson.susan@sc.edu)**

## 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

Walter J. Weber, Jr. Association of Environmental Engineering and Science Professors (AEESP) Frontier in Research Award. 2021.

*Analytical Scientist* Power List (Top 100 analytical scientists). 2021.

University of South Carolina Educational Foundation Research Award for Science, Mathematics and Engineering. 2021.

Alumnus of the Year, Georgia College and State University, College of Arts & Sciences. 2021.

Herty Medal (American Chemical Society). 2020.

Southern Chemist Award (American Chemical Society). 2020.

American Association for the Advancement of Science (AAAS) Fellow. 2019.

*Analytical Scientist* Power List (Top 100 analytical scientists). 2019.

American Chemical Society (ACS) Fellow. 2016.

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-current.

ACS Expert. (Representing ACS in media requests, panel discussions, opinion pieces, community science cafés, and other educational outreach activities). 2014-current.

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

U.S. EPA Scientific and Technological Achievement Award for *Environmental Science & Technology* articles, (1) ‘Comprehensive Assessment of a Chlorinated Drinking Water Concentrate

- in a Rat Multigenerational Reproductive Toxicity Study’, published in *Environmental Science and Technology* and (2) ‘Reproductive Toxicity of a Mixture of Regulated Drinking-Water Disinfection By-Products in a Multigenerational Rat Bioassay’, published in *Environmental Health Perspectives*. 2017.
- 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 3 Significantly Highly-Cited Reviews, ‘Water Analysis: Emerging Contaminants and Current Issues’ (2016 review). 2018.
- Environmental Science & Technology*, Top 20 Most Read Article, ‘Progressive Increase in Disinfection Byproducts and Mutagenicity from Source to Tap to Swimming Pool and Spa Water: Impacts of Human Inputs. 2016 (last 12 months).
- Analytical Chemistry*, Top 20 Most Read Article, ‘Water Analysis: Emerging Contaminants and Current Issues’. 2016 (last 12 months).
- 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’.
- Analytical Chemistry*, Top 20 Most Accessed Articles 2007, ‘Water Analysis: Emerging Environmental Contaminants and Current Issues’, 2<sup>nd</sup> 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’, 8<sup>th</sup> most accessed *ES&T* article in 2007.

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

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

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, ‘Halonnitromethane Drinking Water Disinfection By-Products: Chemical Characterization and Mammalian Cell Cytotoxicity and Genotoxicity’, 13<sup>th</sup> most accessed *ES&T* article in 2004.

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

### **Honors and Awards for Ph.D. Students and Undergraduate Research Students Supervised (University of South Carolina, since 2014)**

Alexandria Forster, 1<sup>st</sup> Place Graduate Student Poster Award (Capturing the PFAS Footprint: LC-MS/MS vs. a New Total Organic Fluorine Method), South Carolina Environmental Conference. 2023.  
Patrick Justin, 3<sup>rd</sup> Place Graduate Student Poster Award (Analysis of Drinking Water and Urine by Vacuum-Assisted Sorbent Extraction to Rapidly Determine Exposure to Iodinated-Trihalomethanes), South Carolina Environmental Conference. 2023.  
Gina Pansari, Victor Laurie Senior Year Scholarship. 2023.  
Thomas Geiger, American Chemical Society (ACS) Analytical Chemistry Award (undergraduate research award). 2023.  
Thomas Geiger, American Chemical Society (ACS) Environmental Chemistry Award (undergraduate research award). 2023.  
Tareq Aziz, 2<sup>nd</sup> Place poster award at the Aquatic Plant Management Society (APMS) Conference (Microseira wollei and Phormidium Algae More Than Doubles DBP Concentrations and Calculated Toxicity in Drinking Water). 2022.  
Tareq Aziz, Joseph W. Bouknight Teaching Award. University of South Carolina, 2022.  
Courtney Weber, ACS Division of Environmental Chemistry Undergraduate Award. 2022.  
Alexandria Forster, Best Poster Award (Development of a New, Robust Total Organic Fluorine Method to Detect Per- and Polyfluoroalkyl Substances in Processed Wastewaters), Fluoros Conference. 2021.  
Samantha Rush, American Chemical Society (ACS) Analytical Chemistry Award (undergraduate research award). 2021.  
James Boyt, ACS Environmental Chemistry Award (undergraduate research award). 2021.  
Dallas Abraham, 1<sup>st</sup> Prize in Poster Competition (Effects of Oil and Gas Extraction on Drinking Water: Measuring Priority DBPs in Hydraulic Fracturing Impacted Waters). South Carolina Environmental Conference (SCEC). Virtual conference (due to Covid-19). 2020.  
Caroline Granger, 2<sup>nd</sup> Prize in Poster Competition (Role of Iodinated X-ray Contrast Media as a Source of Iodine in the Formation of Iodinated DBPs Upon Chlorination at Wastewater Treatment Plants). South Carolina Environmental Conference (SCEC). Virtual conference (due to Covid-19). 2020.  
Danielle Westerman, 3<sup>rd</sup> Prize in Poster Competition (Evaluating Desalination Wastewaters as a Source of Disinfection By-Products in Aquatic Ecosystems). South Carolina Environmental Conference (SCEC). Virtual conference (due to Covid-19). 2020.  
Hannah Liberatore, University of South Carolina Breakthrough Graduate Scholar Award. 2019.  
Amy Cuthbertson, Dean's Award for Excellence in Leadership, University of South Carolina. 2019.  
Gretchen Bollar and Anthony Kocur, William A. Mould Award for Best Honors Thesis, 'Disinfection By-Products in Bottled Water: Is It Really Safer than Tap Water?' University of South Carolina Honors College. 2019.  
Gretchen Bollar, ACS Analytical Chemistry Award (undergraduate research award). 2019.  
Jacqueline Schoener, 1<sup>st</sup> Prize in Poster Competition (morning session), 'Bromide and Iodide Mapping of SC Rivers Using Ion Chromatography: Is South Carolina Really the 'Wonderful Iodine State'?'. University of South Carolina Discovery Day, Columbia, SC. 2019.  
Gretchen Bollar and Anthony Kocur, 1<sup>st</sup> Prize in Poster Competition (afternoon session), 'Disinfection By-Products in Bottled Water: Is it Really Safer Than Tap Water?'. University of South Carolina Discovery Day, Columbia, SC. 2019.  
Hannah Liberatore, Lake Louise International Tandem Mass Spectrometry Workshop Student Travel

Award. Lake Louise, Canada. 2018.

Danielle Westerman, Early Career Award (Best oral presentation: Transformation Products and Disinfection By-Products in Wastewater-Impacted Drinking Water), National Environmental Monitoring Conference, New Orleans, LA. 2018.

Kristin Cochran, 3<sup>rd</sup> Prize in Poster Competition (Safer Wastewater for Indirect Potable Reuse: Removal/Transformation of Priority Emerging Contaminants Via Advanced Oxidation, and High-Resolution Mass Spectrometry Product Identification), South Carolina Water Resources Conference, Columbia, SC. 2018.

Danielle Westerman, Joseph W. Bouknight Teaching Award. University of South Carolina, 2018.

Hannah Liberatore, 1<sup>st</sup> Prize in Poster Competition (Impacts of Hydraulic Fracturing on Chloraminated Drinking Water: New Iodo-Phenolic Disinfection By-Products), South Carolina Environmental Conference, Myrtle Beach, SC. 2017.

Ashley Perkins and Vincent Esposito, 1<sup>st</sup> Prize in Poster Competition (morning session), ‘Disinfection By-Product Removal Efficiency of Activated Carbon Filters for Home Use’. University of South Carolina Discovery Day, Columbia, SC. 2017.

Kristin Cochran, 3<sup>rd</sup> Prize in Poster Competition (Removal and Transformation of Persistent Priority Emerging Contaminants Via Advanced Oxidation Techniques and Transformation Product Identification Using Mass Spectrometry), South Carolina Water Resources Conference, Columbia, SC. 2016.

Joshua Allen, Joseph W. Bouknight Teaching Award. University of South Carolina, 2016.

#### **Ph.D. Students Supervised (University of South Carolina, since 2014)**

- Amy Cuthbertson, Ph.D., July 2019.
- Hannah Liberatore, Ph.D., July 2019.
- Joshua Allen, Ph.D., May 2020.
- Danielle Westerman, Ph.D., May 2021.
- Caroline Granger, Ph.D., May 2022.
- Kristin Cochran, Ph.D., June 2022.
- Tareq Aziz, Ph.D., May 2023.
- Alexandra Forster, anticipated Ph.D., May 2024.
- Patrick Justen, anticipated Ph.D., 2026.
- Coley Beavers, anticipated Ph.D., 2027.
- Ashley Perkins, 2021-2022.
- Nick Raulin, 2021-2022.

#### **Masters Students Supervised (University of South Carolina, since 2014)**

- Christina Joseph, M.S., 2017.
- Dallas Abraham, M.S., January 2021.
- Madison Kilpatrick, M.S., July 2021.

#### **Ph.D. Committees (external)**

- External Examiner, Ph.D. Committee (Wanxin Li), Hong Kong University of Science & Technology. (virtual). 2021.
- External Examiner, Ph.D. Committee (Piia Liigand), University of Tartu, Estonia. 2019.
- External Examiner, Ph.D. Committee (Noelle DeStefano), Duke University. 2018.
- External Examiner, Ph.D. Committee (Trang Vu), University of Illinois. 2018.
- External Examiner, Ph.D. Committee (Tarek Manasfi), University of Marseille, France, 2016.
- External Examiner, Ph.D. Committee (Qingqing Liu), University of Alberta, Canada, 2016.
- External Examiner, Ph.D. Committee (Clara Jeong), University of Illinois, 2014.
- External Examiner, Ph.D. Dissertation Review Committee (Maria Ibanez Martinez), University Jaume I, Castellon, Spain, 2006.

- External Examiner, Ph.D. Dissertation Review Committee (Xiangru Zhang), University of Illinois, 2002.

## Professional Activities

### • Elected/Appointed Offices Held

- ▶ Past-President, American Society for Mass Spectrometry. 2022-2024.
- ▶ President, American Society for Mass Spectrometry. 2020-2022.
- ▶ Vice President for Programs, American Society for Mass Spectrometry. 2018-2020.
- ▶ Councilor, American Chemical Society, Northeast Georgia Section. 2013-2018.
- ▶ Committee on Public Relations and Communications, American Chemical Society. 2018-2024.
- ▶ Associate Editor, *Environmental Science & Technology*. 2017-present.
- ▶ Editorial Advisory Board, *Environmental Science & Technology*. 2009-2017.
- ▶ Associate Editor, *Water Research*. 2009-present.
- ▶ Editorial Advisory Board, *Analytical Chemistry*. 2020-present.
- ▶ 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.
- ▶ Editorial Board, *Current Opinion in Environmental Science and Health*. 2017-2019.
- ▶ Editorial Board, *Journal of Hazardous Materials*. 2014-2020.
- ▶ Editorial Board, *Rapid Communications in Mass Spectrometry*. 2006-present.
- ▶ Editorial Advisory Board, *Environmental Science and Pollution Research*. 2009-present.
- ▶ Editorial Advisory Board, *Journal of Environmental Sciences*. 2015-present.
- ▶ Associate Editor, *Encyclopedia of Analytical Chemistry* (Wiley). 2007-2010.
- ▶ Editorial Advisory Board, Comprehensive Analytical Chemistry book series (Elsevier). 2005-present.
- ▶ Organizing Committee, International Workshop on Tandem Mass Spectrometry. 2006-present.
- ▶ 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**

- ▶ Independent Assessment Committee, Savannah River National Laboratory project. 2023.
- ▶ Expert Panel, U.S. EPA Stakeholder Meeting for 6-Year Review of Disinfectants/Disinfection By-Products Rule: ‘Further Improving Public Health Protection from Microbial Contaminants and Disinfection Byproducts in Drinking Water’. October 2020.
- ▶ Technical Advisory Committee, Water Research Foundation. 2017-present.
- ▶ Scientific Advisory Committee. Catalan Institute of Water Research (ICRA). 2018-present.
- ▶ Scientific and Technological Board, World Joint Programming Initiative (JPI) for ‘Water Challenges for a Changing World’. European Commission, 2014-2015.
- ▶ Scientific Advisory Committee, NIREAS Cyprus International Water Institute, 2010-present.
- ▶ Expert Panel, Department of Energy (DOE) Workshop on ‘Basic Research Needs for the Energy-Water Nexus: New Approaches to Ensure Robust and Secure Energy and Water Systems’. Washington, D.C. 2017.

- ▶ Expert Panel, National Council for Science and the Environment Annual Conference, Session on ‘The Role of Academia in the Environmental and Health Nexus’. Washington, D. C. 2017.
- ▶ Expert Panel, National Science Foundation (NSF) CAREER proposals. Washington, D.C. 2016.
- ▶ Expert Panel, Next Generation Nano Governance Workshop. Washington, D.C. 2015.
- ▶ 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 40<sup>th</sup> 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). 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.
  - ▶ 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.
- **Organized/Chaired the following International Symposia/Workshops**
    - ▶ Symposium Organizer/Co-Chair, 'Analytical Development Relevant to Environmental Exposure and

Effects'. Pacificchem Conference. Honolulu, HA. 2021.

- ▶ *Environmental Science & Technology* Global Webinar Co-organizer/Co-Chair, 'Bridging the Gap: Linking Analytical Chemistry to Biological Effects'. 2021.
- ▶ Co-Chair, Round Table Discussion on 'Tackling Unknowns, Risks, and Barriers for Enhancing Wastewater Reuse: Monitoring Big or Monitoring Smart?' International Conference on Challenges and Solutions related to Xenobiotics and Antimicrobial Resistance in the Framework of Urban Wastewater Reuse: Towards a Blue Circle Society, XENOWAC II. Limassol, Cyprus. 2018.
- ▶ Session Chair, 'Accumulation of Persistent Anthropogenic Pollutants', 13<sup>th</sup> Annual LC-MS/MS Workshop on Environmental and Food Safety, Buffalo, NY. 2017.
- ▶ Session Organizer/Chair, 'Emerging and Persistent Environmental Contaminants'. International Mass Spectrometry Conference. Toronto, Canada. 2016.
- ▶ Symposium Organizer/Co-Chair, 'Analytical Development Relevant to Environmental Exposure and Effects'. Pacificchem Conference. Honolulu, HA. 2015.
- ▶ Program Committee, Micropol & Ecohazard 2015 and the 8<sup>th</sup> 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 8<sup>th</sup> 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'. Pacificchem Conference. Honolulu, HA. 2010.
- ▶ Program Committee, Micropol & Ecohazard 2011 and the 7<sup>th</sup> 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, 34<sup>th</sup> International Symposium on Environmental Analytical Chemistry. Hamburg, Germany. 2006.
- ▶ Organizing committee, 1<sup>st</sup> 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 16<sup>th</sup> 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 Co-Organizer/Chair, ‘Disinfection & Oxidation Byproducts in Water Treatment’. The 264<sup>th</sup> American Chemical Society National Meeting. Chicago, IL. 2022.
  - ▶ Symposium Co-Organizer/Chair, *ES&T* sponsored symposium: ‘New Developments in Analytical Methods & Instrumentation for Environmental Science & Technology’. The 263<sup>rd</sup> American Chemical Society National Meeting. San Diego, CA. 2022.
  - ▶ Symposium Co-Organizer/Chair, ‘Disinfection Byproducts in Drinking Water & Wastewater: Detection, Formation & Control’. The 262<sup>nd</sup> American Chemical Society National Meeting. Atlanta, GA. 2021.
  - ▶ Conference Organizer (as Vice President for Programs), 68<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Houston, TX. 2020 (online conference due to Covid-19).
  - ▶ Conference Organizer (as Vice President for Programs), 67<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Atlanta, GA. 2019.
  - ▶ Discussion Leader ‘Disinfection Systems of the Future: How Can We Minimize Toxicity Drivers?’.

Gordon Research Conference on Drinking Water Disinfection By-Products, Mount Holyoke, MA. 2017.

- ▶ 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 63<sup>rd</sup> 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 248<sup>th</sup> American Chemical Society National Meeting. San Francisco, CA. 2014.
- ▶ Symposium Co-Organizer, ‘Women in Environmental Science and Engineering’. The 248<sup>th</sup> 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 61<sup>st</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Minneapolis, MN. 2013.
- ▶ Symposium Organizer/Co-Chair, ‘Emerging Environmental Contaminants: Chemistry and Toxicology’. The 243<sup>rd</sup> 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 60<sup>th</sup> 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 59<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Denver, CO. 2011.
- ▶ Session Organizer/Chair, ‘Environmental Chemistry and Health’. The 59<sup>th</sup> 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 58<sup>th</sup> 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 236<sup>th</sup> American Chemical Society National Meeting. Philadelphia, PA. 2008.

- ▶ Workshop Organizer/Chair, ‘Signal Suppression in LC-MS Determination of Environmental Contaminants’. The 56<sup>th</sup> 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 55<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics, Indianapolis, IN. 2007.
- ▶ Session Organizer/Chair, ‘New and Emerging Environmental Contaminants’. The 53<sup>rd</sup> 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 50<sup>th</sup> 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 221<sup>st</sup> American Chemical Society National Meeting, San Diego, CA. 2001.
- ▶ Symposium Co-organizer/Chair, ‘Elegant Analytical Chemistry Applied to Environmental Problems’. Three-day symposium; the 222<sup>nd</sup> 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 48<sup>th</sup> 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 46<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics, Orlando, FL. 1998.
- ▶ Symposium Organizer/Chair, ‘New Perspectives in Environmental Chemistry: Measurement and Detection’. The 211<sup>th</sup> American Chemical Society National Meeting, New Orleans, LA. 1996.
- ▶ Session Organizer/Chair, ‘Mass Spectrometry in Environmental Research’. The 43<sup>rd</sup> ASMS Conference on Mass Spectrometry and Allied Topics, Atlanta, GA. 1995.

- **Other Professional Activities**

- ▶ Guest Co-Editor, *Analytical and Bioanalytical Chemistry* special issue on New Trends in Environmental Analysis of Pollutants. 2023.
- ▶ Guest Co-Editor, Joint Virtual Issue of *Environmental Science & Technology*, *Analytical Chemistry*, and *ACS Omega* on ‘Analytical Chemistry in Environmental Research’. 2022. <https://pubs.acs.org/page/vi/analytical-environment-2022>

- ▶ Guest Editor, *Current Opinion in Environmental Science and Health* special issue on Drinking Water Contaminants and Health Effects. 2017-2020.
- ▶ Guest Co-Editor, *Journal of Environmental Sciences* special issue on Drinking Water Disinfection By-Products. 2016-2017.
- ▶ 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*, *Environmental Science & Technology Letters*, *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**

- ▶ Council of Scientific Society Presidents. 2020-present.
- ▶ American Chemical Society. 1983-present.
- ▶ American Association for the Advancement of Science. 2015-present.
- ▶ Association of Environmental Engineering and Science Professors. 2020-present.
- ▶ American Water Works Association. 1998-present.
- ▶ American Society for Mass Spectrometry. 1989-present.
- ▶ International Ozone Association. 1998-2007.
- ▶ Environmental Division of the American Chemical Society. 1992-present.
- ▶ Analytical Division of the American Chemical Society. 2014-present.
- ▶ Atlanta/Athens Mass Spectrometry Discussion Group. 1992-2013.
- ▶ Society of Sigma Xi. 1990-2005.

**Publications (59 Invited)**

1. Mitch, W.A., S. D. Richardson, X. R. Zhang, and M. Gonsior. 2023. High-Molecular-Weight By-

- Products of Chlorine Disinfection. *Nature Water*, 1: 336–347. <https://doi.org/10.1038/s44221-023-00064-x>. (Invited).
- Forster, A. L. B., Y. Zhang, D. C. Westerman, and S. D. Richardson. 2023. Improved Total Organic Fluorine Methods for More Comprehensive Measurement of PFAS in Industrial Wastewater, River Water, and Air. *Water Res.*, 235: 119859. <https://doi.org/10.1016/j.watres.2023.119859>.
  - Aziz, M. D., C. O. Granger, J. L. Ferry, and S. D. Richardson. 2023. Algae Impacted Drinking Water: Does Switching to Chloramination Produce Safer Drinking Water? *Sci. Total Environ.*, 162815. <https://doi.org/10.1016/j.scitotenv.2023.162815>. (Invited).
  - Abraham, D. G., H. K. Hannah K. Liberatore, M. T. Md. Tareq Aziz, D. B. Burnett, L. H. Cizmas, S. D. Richardson. 2023. Impacts of Hydraulic Fracturing Wastewater from Oil and Gas Industries on Drinking Water: Quantification of 69 Disinfection By-Products and Calculated Toxicity. *Sci. Total Environ.*, 882: 163344. (Invited).
  - Dong, H., I. D. Nordhorn, K. Lamann, D. C. Westerman, H. K. Liberatore, A. L. B. Forster, M. T. Aziz, and S. D. Richardson. 2023. Overlooked Iodo-Disinfection Byproduct Formation When Cooking Pasta with Iodized Table Salt. *Environ. Sci. Technol.*, 57 (9): 3538-3548.
  - Villanueva, C. M., I. Evlampidou, F. Ibrahim, C. Donat-Vargas, A. Valentin, A.-M. Tugulea, S. Echigo, D. Jovanovic, A. T Lebedev, M. Lemus-Pérez, M. Rodriguez-Susa, A. Luzati, T. de Cássia dos Santos Nery, P. A Pastén, M. Quiñones, S. Regli, R. Weisman, S. Dong, M. Ha, S. Phattarapattamawong, T. Manasfi, S.-I. E. Musah, A. Eng, K. Janák, S. C. Rush, D. Reckhow, S. W. Krasner, P. Vineis, S. D. Richardson, and M. Kogevinas. 2023. Global Assessment of Chemical Quality of Drinking Water: The Case of Trihalomethanes. *Water Res.*, 230: 119568.
  - Richardson, S. D., and C. Postigo. 2023. Screening Strategies for DBPs in Drinking Water, In: Screening of Pollutants in the Environment: Non-target Strategies and Latest Trends, *The Handbook of Environmental Chemistry*. In review (Invited).
  - Li, J., M. T. Aziz, C. O. Granger, and S. D. Richardson. 2022. Halocyclopentadienes: An Emerging Class of Toxic DBPs in Chlor(am)inated Drinking Water. *Environ. Sci. Technol.*, 56: 11387–11397.
  - Allen, J. M., M. J. Plewa, E. D. Wagner, X. Wei, K. Bokenkamp, K. Hur, A. Jia, H. K. Liberatore, C.-F. T. Lee, R. Shirkhani, S. K. Krasner, and S. D. Richardson. 2022. Disinfection By-Product Drivers of Cytotoxicity in U.S. Drinking Water: Should Other DBPs Be Considered for Regulation? *Environ. Sci. Technol.*, 56: 392–402.
  - Allen, J. M., M. J. Plewa, E. D. Wagner, X. Wei, K. Bokenkamp, K. Hur, A. Jia, H. K. Liberatore, C.-F. Lee, R. Shirkhani, S. W. Krasner, and S. D. Richardson. 2022. Feel the Burn: Disinfection Byproduct Formation and Cytotoxicity during Chlorine Burn Events. *Environ. Sci. Technol.*, 56: 8245–8254.
  - Aziz, M. T., C. O. Granger, D. C. Westerman, S. P. Putnam, J. L. Ferry, and S. D. Richardson. 2022. *Microseira wollei* and Phormidium Algae More Than Doubles DBP Concentrations and Calculated Toxicity in Drinking Water. *Water Res.*, 216: 118316.
  - Richardson, S. D. 2022. Invited Perspective: Existing Rules for Disinfection By-products Are Good, but They Are Not Enough. *Environ. Health Perspect.*, 130 (8): 081302.

13. Richardson, S. D., and T. A. Ternes. 2022. Water Analysis: Emerging Contaminants and Current Issues. *Anal. Chem.*, 88 (1): 546-582. (Invited biennial review article).
14. Bloodgood, M. A., S. A. Chowdary, E. J. Daiber, H. Shi, C. O. Granger, and S. D. Richardson. 2022. A Balancing Act: Optimizing Free Chlorine Contact Time to Minimize Iodo-DBPs, NDMA, and Regulated DBPs in Chloraminated Drinking Water. *J. Environ. Sci.*, 117: 315–325. (Invited for a special issue on ‘Drinking Water Safety’).
15. Granger, C. O., and S. D. Richardson. 2022. Do DBPs Also Swim in Salt Water Pools? Comparison of 60 DBPs in a Pool Treated with Electrochemically Generated Chlorine vs. Conventional Chlorine. *J. Environ. Sci.*, 117: 232–241. (Invited for a special issue on ‘Drinking Water Safety’).
16. Liao, X., J. M. Allen, C. O. Granger, and S. D. Richardson. 2022. How Well Does XAD Resin Extraction Recover Halogenated Disinfection Byproducts for Comprehensive Identification and Toxicity Testing? *J. Environ. Sci.*, 117: 264–275. (Invited for a special issue on ‘Drinking Water Safety’).
17. Krasner, S. W., A. Jia, C.-F. T. Lee, R. Shirkhani, J. M. Allen, S. D. Richardson, and M. J. Plewa. 2022. Relationships Between Regulated DBPs and Emerging DBPs of Health Concern in U.S. Drinking Water. *J. Environ. Sci.*, 117: 161–172. (Invited for a special issue on ‘Drinking Water Safety’).
18. Lebedev, A. T., and S. D. Richardson. 2022. Planet Contamination with Chemical Compounds. *Molecules*, 27: 1621. (Invited editorial).
19. Liberatore, H. K., E. J. Daiber, S. A. Ravuri, J. E. Schmid, S. D. Richardson, and D. M. DeMarini. 2022. Disinfection Byproducts in Chlorinated or Brominated Swimming Pools and Spas: Role of Brominated DBPs and Association with Mutagenicity. *J. Environ. Sci.*, 117: 253–263.
20. Brack, W., D. Barcelo Culleres, A. B. A. Boxall, H. Budzinski, S. Castiglioni, A. Covaci, V. Dulio, B. I. Escher, P. Fantke, F. Kandie, D. Fatta-Kassinos, F. J. Hernández, K. Hilscherová, J. Hollender, H. Hollert, A. Jahnke, B. Kasprzyk-Hordern, S. J. Khan, A. Kortenkamp, K. Kümmerer, B. Lalonde, M. H. Lamoree, Y. Levi, P. A. Lara Martín, C. C. Montagner, C. Mougin, T. Msagati, J. Oehlmann, L. Posthuma, M. Reid, M. Reinhard, S. D. Richardson, P. Rostkowski, E. Schymanski, F. Schneider, J. Slobodnik, Y. Shibata, S. A. Snyder, F. Fabriz Sodr , I. Teodorovic, K. V. Thomas, G. A. Umbuzeiro, P. H. Viet, K. G. Yew-Hoong, X. Zhang, and E. Zuccato. 2022. One Planet: One Health. A Call to Support the Initiative on a Global Science–Policy Body on Chemicals and Waste. *Environ. Sci. Europe*, 34: 21.
21. Richardson, S. D. 2022. A Catalyst for Integrating Analytical Biology, Analytical Chemistry, and Engineering to Improve Drinking Water Safety: The Groundbreaking Work of Dr. Michael Plewa. *J. Environ. Sci.*, 117: 6–9. (Invited perspective article for a special issue on ‘Drinking Water Safety’).
22. Li, J., M. T. Aziz, C. O. Granger, and S. D. Richardson. 2021. Are Disinfection Byproducts Formed in My Cup of Tea? Regulated, Priority, and Unknown DBPs. *Environ. Sci. Technol.*, 55: 12994-13004.
23. Lau, S. S., A. L. Forster, S. D. Richardson, and W. A. Mitch. 2021. Disinfection Byproduct Recovery During Extraction and Concentration in Preparation for Chemical Analyses or Toxicity Assays. *Environ. Sci. Technol.*, 55 (20): 14136-14145.
24. DeMarini, D. M., S. H. Warren, W. J. Smith, S. D. Richardson, and H. K. Liberatore. 2021. Inability



- of GSTT1 to Activate Iodinated Halomethanes to Mutagens in Salmonella. *Environ. Molec. Mutagen.*, 62: 168-176.
25. Medlock Kakaley, E., M. C. Cardona, N. Evans, J. M. Allen, E. Wagner, K. Hur, K. Bokenkamp, S. D. Richardson, M. J. Plewa, P. M. Bradley, J. M. Conley, L. E. Gray, P. C. Hartig, and V. S. Wilson. 2021. In vitro effects-based method and water quality screening model for use in pre- and post-distribution treated water. *Sci. Total Environ.*, 768: 144750.
  26. Ackerson, N. O. B., H. K. Liberatore, S. D. Richardson, M. J. Plewa, T. A. Ternes and S. E. Duirk. 2021. Chloramination of Iopamidol- and Bromide-Spiked Waters Containing Natural Organic Matter. *Water Supply*, 21 (2): 886-898.
  27. Richardson, S. D. 2021. Tackling Unknown Disinfection By-Products: Lessons Learned. *J. Haz. Mater. Lett.*, 2: 100041. (invited perspective article).
  28. Forster, A. L., Y. Zhang, and S. D. Richardson. 2021. Development of a Total Organic Fluorine Method for the Analysis of Process Wastewater Streams and Air from Fayetteville Works (NC), final report. <https://www.chemours.com/en/-/media/files/corporate/fayetteville-works/final-tof-report--12-31-21.pdf?rev=780bb9c3e4064b6397c313f6fa09243e&hash=EC54D06E8A1FB206DAEAC84B51D82CFA>
  29. Postigo, C., and S. D. Richardson. 2021. Non-target screening and novel methods based on mass spectrometry detection for identification of unknown disinfection byproducts. In: *Comprehensive Analytical Chemistry: Analysis and Formation of Disinfection Byproducts in Drinking Water*; Vol. 92. Elsevier: Amsterdam. <https://doi.org/10.1016/bs.coac.2021.01.001>. (Invited book chapter).
  30. Cuthbertson, A. A., H. K. Liberatore, S. Y. Kimura, J. M. Allen, A. V. Bensussan, and S. D. Richardson. 2020. Trace Analysis of 61 Emerging Br-, Cl-, and I-DBPs: New Methods to Achieve Part-Per-Trillion Quantification in Drinking Water. *Anal. Chem.*, 92 (4): 3058-3068.
  31. Liberatore, H. K., D. C. Westerman, J. M. Allen, M. J. Plewa, E. D. Wagner, A. M. McKenna, C. R. Weisbrod, J. P. McCord, R. J. Liberatore, D. B. Burnett, L. H. Cizmas, and S. D. Richardson. 2020. High-Resolution Mass Spectrometry Identification of Novel Surfactant-Derived Sulfur-Containing Disinfection By-Products from Gas Extraction Wastewater. *Environ. Sci. Technol.*, 54: 9374–9386.
  32. Verdugo, E. M., M. Gifford, C. Glover, A. A. Cuthbertson, R. Trenholm, S. Y. Kimura, H. K. Liberatore, S. D. Richardson, B. D. Stanford, R. S. Summers, and E. R. V. Dickenson. 2020. Controlling Disinfection Byproducts from Treated Wastewater using Adsorption with Granular Activated Carbon: Impact of Pre-Ozonation and Pre-Chlorination. *Water Res. X*, 9: 100068.
  33. Powers, L. C., A. Conway, C. L. Mitchelmore, S. J. Fleischaker, M. Harir, D. C. Westerman, J. P. Croué, P. Schmitt-Kopplin, S. D. Richardson, and M. Gonsior. 2020. Tracking the Formation of New Brominated Disinfection By-Products during the Seawater Desalination Process. *Environ. Sci. Water Res. Technol.*, 6: 2521-2541.
  34. Dong, H., A. A. Cuthbertson, and S. D. Richardson. 2020. Effect-Directed Analysis (EDA): A Promising Tool for Nontarget Identification of Unknown Disinfection Byproducts in Drinking Water. *Environ. Sci. Technol.*, 54 (3): 1290-1292.
  35. Richardson, S. D., and M. J. Plewa. 2020. To Regulate or Not to Regulate? What to Do With More Toxic Disinfection By-Products? *J. Environ. Chem. Eng.*, 8: 103939. (invited opinion article).

36. Richardson, S. D., and S. Y. Kimura. 2020. Water Analysis: Emerging Contaminants and Current Issues. *Anal. Chem.*, 92 (1): 473-505. (Invited biennial review article).
37. Apul, O. G., L. S. Rowles, III, A. Khalid, T. Karanfil, S. D. Richardson, and N. B. Saleh. 2020. Transformation Potential of Cannabinoids During Their Passage Through Engineered Water Treatment Systems: A Perspective. *Environ. Int.*, 137: 105586.
38. Bradley, P. M., M. Argos, D. W. Kolpin, S. M. Meppelink, K. M. Romanok, K. L. Smalling, M. J. Focazio, J. M. Allen, J. E. Dietze, M. J. Devito, A. R. Donovan, N. Evans, C. E. Givens, J. L. Gray, C. P. Higgins, M. L. Hladik, L. R. Iwanowicz, C. A. Journey, R. F. Lane, Z. R. Laughrey, K. A. Loftin, R. B. McCleskey, C. A. McDonough, E. Medlock-Kakaley, M. T. Meyer, A. R. Putz, S. D. Richardson, A. E. Stark, C. P. Weis, V. S. Wilson, and A. Zehraoui. 2020. Mixed Organic and Inorganic Tapwater Exposures and Potential Effects in Greater Chicago Area, USA. *Sci. Total Environ.*, 719: 137236.
39. Cuthbertson, A. A., S. Y. Kimura, H. K. Liberatore, D. R. U. Knappe, B. Stanford, R. S. Summers, E. R. Dickenson, C. Maness, C. Glover, M. Selbes, and S. D. Richardson. 2020. GAC to BAC: Does It Make Chloraminated Drinking Water Safer? *Water Res.*, 172: 115432.
40. Huang, Y., M. Kong, S. Coffin, K. H. Cochran, D. C. Westerman, D. Schlenk, S. D. Richardson, L. Lei, and D. D. Dionysiou. 2020. Degradation of Contaminants of Emerging Concern by UV/H<sub>2</sub>O<sub>2</sub> for Water Reuse: Kinetics, Mechanisms, and Cytotoxicity Analysis. *Water Res.*, 174: 115587.
41. Richardson, S. D. 2020. Coming to Academia Through the “Back Door”. *Anal. Bioanal. Chem.*, 412 (8): 1719-1720. (Invited perspective article).
42. Zhang, C., J. C. Maness, A. A. Cuthbertson, S. Y. Kimura, H. K. Liberatore, S. D. Richardson, B. D. Stanford, M. Sun, and D. R. U. Knappe. 2020. Treating Water Containing Elevated Bromide and Iodide Levels with Granular Activated Carbon and Free Chlorine: Impacts on Disinfection Byproduct Formation and Calculated Toxicity. *Environ. Sci. Water Res. Technol.*, 6: 3460-3475.
43. Lowry, G., J. Field, P. Westerhoff, J. Zimmerman, P. Alvarez, A. Boehm, J. Crittenden, J. Dachs, M. Diamond, M. Eckelman, J. Gardea-Torresdey, D. Giammar, T. Hofstetter, K. Hornbuckle, G. Jiang, X. Li, F. Leusch, J. Mihelcic, S. Miller, A. Pruden, L. Raskin, S. Richardson, M. Scheringer, D. Schlenk, T. Strathmann, S. Tao, T. D. Waite, P. Wang, and S. Wang. 2020. Why Was My Paper Rejected without Review? *Environ. Sci. Technol.*, 54 (19): 11641-11644.
44. Cuthbertson, A. A., S. Y. Kimura, H. K. Liberatore, R. S. Summers, D. R. U. Knappe, B. D. Stanford, J. C. Maness, R. E. Mulhern, M. Selbes, and S. D. Richardson. 2019. Does Granular Activated Carbon with Chlorination Produce Safer Drinking Water? From Disinfection Byproducts and Total Organic Halogen to Calculated Toxicity. *Environ. Sci. Technol.*, 53 (10): 5987-5999.
45. Dong, H., Z. Qiang, and S. D. Richardson. 2019. Formation of Iodinated Disinfection Byproducts (I-DBPs) in Drinking Water: Emerging Concerns and Current Issues. *Acc. Chem. Res.*, 52 (4): 896-905. (Invited for a special issue on ‘Water for Two Worlds: Urban and Rural Communities’).
46. Cuthbertson, A. A.; C. Bach, S. D. Richardson, and X. Dauchy. 2020. A Novel Automated Method for the Quantification of Halobenzoquinones in Drinking Water Using Online Solid-Phase Extraction Coupled with Liquid Chromatography Tandem Mass Spectrometry. *J. Chromatogr., A*, 1612: 460642.

47. Smith, M. L., D. C. Westerman, S. P. Putnam, S. D. Richardson, and J. L. Ferry. 2019. Emerging *Lyngbya Wollei* Toxins: A New High Resolution Mass Spectrometry Method to Elucidate a Potential Environmental Threat. *Harmful Algae*, 90: 101700.
48. Russo, D., K. H. Cochran, D. C. Westerman, G. Li Puma, R. Marotta, R. Andreozzi, and S. D. Richardson. 2020. Ultrafast Photodegradation of Isoxazole and Isothiazolinones by UV254 and UV254/H<sub>2</sub>O<sub>2</sub> Photolysis in a Microcapillary Reactor. *Water Res.*, 169: 115203.
49. Ackerson, N. O. B., H. K. Liberatore, M. J. Plewa, S. D. Richardson, T. A. Ternes, and S. E. Duirk. 2020. Disinfection Byproducts and Halogen-Specific Total Organic Halogen Speciation in Chlorinated Source Waters-The Impact of Iopamidol and Bromide. *J. Environ. Sci.*, 89: 90-101.
50. Parvez, S., J. Ashby, S. Y. Kimura, and S. D. Richardson. 2019. Exposure Characterization of Haloacetic Acids in Humans for Exposure and Risk Assessment Applications. *Int. J. Environ. Res. Public Health*, 16: 471-485.
51. DeHaven, B. A., H. K. Liberatore, A. Greer, S. D. Richardson, and L. S. Shimizu. 2019. Probing the Formation of Reactive Oxygen Species by a Porous Self-Assembled Benzophenone Bis-Urea Host. *ACS Omega*, 4(5): 8290-8298.
52. Vu, T. N., S. Y. Kimura, M. J. Plewa, S. D. Richardson, and B. J. Marinas. 2019. Predominant N-Haloacetamide and Haloacetonitrile Formation in Drinking Water via the Aldehyde Reaction Pathway. *Environ. Sci. Technol.*, 53 (2): 850–859.
53. Ackerson, N. O. B., A. H. Killinger, H. K. Liberatore, T. A. Ternes, M. J. Plewa, S. D. Richardson, and S. E. Duirk. 2019. The Impact of Chlorine Exposure Time on Disinfection Byproduct Formation in the Presence of Iopamidol and Natural Organic Matter During Chlorination. *J. Environ. Sci.*, 78: 204-214.
54. Stanford, B. D., D. Knappe, C. Maness, C. Zhang, R. S. Summers, R. Mulhern, S. D. Richardson, A. Cuthbertson, S.Y. Kimura, H. Liberatore, E. R. V. Dickenson, E. Verdugo, C. Glover, A. Ghosh, C. Seidel, M. Selbes, A. Reinert, M. Pierce, and E. Rosenfeldt. 2019. *GAC Control of Regulated and Emerging DBPs of Health Concern*. Denver, CO: The Water Research Foundation.
55. Richardson, S. D., and T. A. Ternes. 2018. Water Analysis: Emerging Contaminants and Current Issues. *Anal. Chem.*, 90 (1): 398–428. (Invited biennial review article).
56. Huang, Y., M. Kong, E. G. Xu, S. Coffin, D. Westerman, K. H. Cochran, D. Schlenk, S. D. Richardson, and D. D. Dionysiou. 2018. Effects of HCO<sub>3</sub><sup>-</sup> on Degradation of Toxic Contaminants of Emerging Concern by UV/NO<sub>3</sub><sup>-</sup> for Water Reuse Applications. *Environ. Sci. Technol.*, 52 (21): 12697–12707.
57. Kimura, S. Y., A. A. Cuthbertson, J. D. Byer, and S. D. Richardson. 2019. The DBP Exposome: Development of a New Method to Simultaneously Quantify Priority Disinfection By-Products and Comprehensively Identify Unknowns. *Water Res.*, 148: 324-333.
58. Ackerson, N. O. B., E. J. Machek, A. H. Killinger, E. A. Crafton, P. Kumkum, H. K. Liberatore, M. J. Plewa, S. D. Richardson, T. A. Ternes, and S. E. Duirk. 2018. Formation of DBPs and Halogen-Specific TOX in the Presence of Iopamidol and Chlorinated Oxidants. *Chemosphere*, 202: 349-357.
59. Postigo, C., D. M. DeMarini, M. D. Armstrong, H. K. Liberatore, K. Lamann, S. Y. Kimura, A. A. Cuthbertson, S. H. Warren, S. D. Richardson, T. McDonald, Y. Sey, N. O. B. Ackerson, S. E. Duirk,

- and J. E. Simmons. 2018. Chlorination of Source Water Containing Iodinated X-Ray Contrast Media: Mutagenicity and Identification of New Iodinated Disinfection By-Products. *Environ. Sci. Technol.*, 52 (22): 13047–13056.
60. Liberatore, H. K., M. J. Plewa, E. D. Wagner, J. M. VanBriesen, D. B. Burnett, L. H. Cizmas, and S. D. Richardson. 2017. Identification and Comparative Mammalian Cell Cytotoxicity of New Iodo-Phenolic Disinfection Byproducts in Chloraminated Oil and Gas Wastewaters *Environ. Sci. Technol. Lett.*, 4 (11): 475-480.
  61. Warth, B., S. Spangler, M. L. Fang, C. H. Johnson, E. M. Forsberg, A. Granados, R. L. Martin, X. Domingo-Almenara, T. Huan, D. Rinehart, J. R. Montenegro-Burke, B. Hilmers, A. Aisporna, L. T. Hoang, W. Uritboonthai, H. P. Benton, S. D. Richardson, A. J. Williams, and G. Siuzdak. 2017. Exposome-Scale Investigations Guided by Global Metabolomics, Pathway Analysis, and Cognitive Computing. *Anal. Chem.*, 89 (21): 11505-11513
  62. Luek, J. L., P. Schmitt-Kopplin, P. Mouser, W. T. Petty, S. D. Richardson, and M. Gonsior. 2017. Halogenated Organic Compounds Identified in Hydraulic Fracturing Wastewaters Using Ultrahigh Resolution Mass Spectrometry. *Environ. Sci. Technol.*, 51 (10): 5377-5385.
  63. Richardson, S. D., S. Kimura. 2017. Emerging Environmental Contaminants: Challenges Facing Our Next Generation. *Environ. Technol. Innovation*, 8: 40-56. (Invited review article).
  64. Kimura, S. Y., W. W. Zheng, T. N. Hipp, J. M. Allen, and S. D. Richardson. 2017. Total Organic Halogen (TOX) in Human Urine: A Halogen-Specific Method for Human Exposure Studies. *J. Environ. Sci.*, 58: 285-295.
  65. Allen, J. M., A. A. Cuthbertson, H. K. Liberatore, S. Y. Kimura, A. Mantha, M. A. Edwards, and S. D. Richardson. 2017. Showering in Flint, MI: Is There a DBP Problem? *J. Environ. Sci.*, 58: 271-284.
  66. Postigo, C., S. D. Richardson, and D. Barcelo. 2017. Formation of Iodo-Trihalomethanes, Iodo-Haloacetic Acids, and Haloacetaldehydes During Chlorination and Chloramination of Iodine Containing Waters in Laboratory Controlled Reactions. *J. Environ. Sci.*, 58: 127-134.
  67. Plewa, M. J., E. D. Wagner, and S. D. Richardson. 2017. TIC-Tox: A Preliminary Discussion on Identifying the Forcing Agents of DBP-Mediated Toxicity of Disinfected Water. *J. Environ. Sci.*, 58: 208-216.
  68. Jeong, C. H., E. J. Machek, M. Shakeri, S. E. Duirk, T. A. Ternes, S. D. Richardson, E. D. Wagner, and M. J. Plewa. 2017. The Impact of Iodinated X-Ray Contrast Agents on Formation and Toxicity of Disinfection By-Products in Drinking Water. *J. Environ. Sci.*, 58: 173-182.
  69. Parvez, S., G. E. Rice, L. K. Teuschler, J. E. Simmons, T. F. Speth, S. D. Richardson, R. J. Miltner, E. S. Hunter, III, J. G. Pressman, L. F. Strader, G. R. Klinefelter, J. M. Goldman, and M. G. Narotsky. 2017. A Method to Assess the Contribution of Components to the Toxicity of Complex Mixtures: Assessment of Puberty Acquisition in Rats Exposed to Disinfection Byproducts. *J. Environ. Sci.*, 58: 311-321.
  70. Plewa, M. J., and S. D. Richardson. 2017. Disinfection By-Products in Drinking Water, Recycled Water and Wastewater: Formation, Detection, Toxicity and Health Effects: Preface. *J. Environ. Sci.*, 58: 1.

71. 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.*, 50 (13): 6652–6662. (Distinguished as an Editors' Choice for immediate open access).
72. Wendel, F. M., T. A. Ternes, S. D. Richardson, S. E. Duirk, J. A. Pals, E. D. Wagner, and M. J. Plewa. 2016. Comparative Toxicity of High-Molecular Weight Iopamidol Disinfection Byproducts. *Environ. Sci. Technol. Lett.*, 3 (3): 81-84.
73. Richardson, S. D., S. Y. Kimura. 2016. Water Analysis: Emerging Contaminants and Current Issues. *Anal. Chem.*, 88: 546-582. (Invited biennial review article).
74. 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).
75. 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).
76. 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/H<sub>2</sub>O<sub>2</sub> Process with a Flow Microcapillary Film Array Photoreactor. *Water Res.*, 89: 375-385.
77. 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).
78. LaKind, J., J. Overpeck, P. Breysse, L. Backer, S. D. Richardson, J. Sobus, A. Sapkota, C. Romeo, C. Jiang, B. Beard, J. Brunkard, J. Bell, R. Harris, J.-P. Chretien, and R. Peltier. 2016. Exposure Science in an Age of Rapidly Changing Climate: Challenges and Opportunities. *J. Exposure Sci. Environ. Epidemiol.*, 26 (6): 529-538.
79. Richardson, S. D., C. Postigo. 2016. Discovery of New Emerging DBPs by High Resolution Mass Spectrometry. In: *Comprehensive Analytical Chemistry: Applications of TOF and Orbitrap MS in Environmental, Food, Doping, and Forensic Analysis*. Elsevier: Amsterdam. (Invited book chapter).
80. 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.
81. 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.

82. 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.
83. 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.
84. Richardson, S. D., and C. Postigo. 2015. Formation of DBPs: State of the Science. In: *Recent Advances in Disinfection By-Products*, Chapter 11, vol. 1190, Karanfil, T., Mitch, W. A., and Xie, Y.-F. (eds.); *American Chemical Society Symposium Series*, pp 189-214. (Invited book chapter).
85. Postigo, C., S. D. Richardson, C. H. Jeong, E. D. Wagner, M. J. Plewa, J. E. Simmons, and D. Barcelo. 2015. Occurrence and Toxicity of Haloaldehydes in Drinking Waters: Iodoacetaldehyde as an Emerging Disinfection Byproduct. In: *Recent Advances in Disinfection By-Products*, Chapter 2, vol. 1190, Karanfil, T., Mitch, W. A., and Xie, Y.-F. (eds.); *American Chemical Society Symposium Series*, pp 25-43. (Invited book chapter).
86. Richardson, S. D., and C. Postigo. 2015. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. In: *Disinfection By-Products in Drinking Water*, Thompson, K. C., Gillespie, S., and Goslan, E. (eds); Royal Society of Chemistry: London. (Invited book chapter).
87. Wendel, F. M., C. Luetke-Eversloh, E. J. Machek, S. E. Duirk, M. J. Plewa, S. D. Richardson, and T. A. Ternes. 2014. Transformation of Iopamidol During Chlorination. *Environ. Sci. Technol.*, 48 (21): 12689-12697.
88. Gonsior, M.; Schmitt-Kopplin, P.; Stavklint, H.; Richardson, S. D.; Hertkorn, N.; Bastviken, D. 2014. Changes in Dissolved Organic Matter During the Treatment Processes of a Drinking Water Plant in Sweden and Formation of Previously Unknown Disinfection Byproducts. *Environ. Sci. Technol.*, 48 (21): 12714-12722.
89. Richardson, S. D., and T. A. Ternes. 2014. Water Analysis: Emerging Contaminants and Current Issues. *Anal. Chem.*, 86: 2813-2848. (Invited biennial review article).
90. Postigo, C., and S. D. Richardson. 2014. Transformation of Pharmaceuticals During Oxidation/Disinfection Processes in Drinking Water Treatment. *J. Hazard. Mater.*, 279: 461-475. (Invited).
91. Werschkun, B., S. Banerji, O. C. Basurko, M. David, F. Fuhr, S. Gollasch, T. Grummt, M. Haarich, A. N. Jha, S. Kacan, A. Kehrer, J. Linders, E. Mesbahi, D. Pughiuc, S. D. Richardson, B. Schwarz-Schulz, A. Shah, N. Theobald, U. Von Gunten, S. Wieck, and T. Hoefler. 2014. Emerging Risks from Ballast Water Treatment: The Run-Up to the International Ballast Water Management Convention. *Chemosphere*, 112: 256-266.
92. Krasner, S. W., G. Amy, and S. D. Richardson. 2014. Carbonaceous Disinfection By-Products (C-DBPs) of Chlorine, Chloramines, and Chlorine Dioxide, In: *Organic By-Products of Concern Produced in Drinking Water Treatment*, Suffet, I. H., Quang, D., Bruchet, A., Krasner, S. and Khiari, D. (eds.); Water Research Foundation: Denver, CO. (Invited book chapter).

93. Narotsky, M. G., G. R. Klinefelter, J. M. Goldman, D. S. Best, A. McDonald, L. F. Strader, J. D. Suarez, A. S. Murr, I. Thillainadarajah, E. S. Hunter III, S. D. Richardson, T. F. Speth, R. J. Miltner, J. G. Pressman, L. K. Teuschler, G. E. Rice, V. C. Moser, R. W. Luebke, and J. E. Simmons. 2013. Comprehensive Assessment of a Chlorinated Drinking Water Concentrate in a Rat Multigenerational Reproductive Toxicity Study: U.S. EPA's Four Lab Study. *Environ. Sci. Technol.*, 47: 10653-10659.
94. Jeong, C. H., S. Anduri, S. D. Richardson, E. J. Daiber, A. B. McKague, M. J. Nieuwenhuijsen, M. Kogevinas, C. M. Villanueva, E. H. Goslan, W. Luo, L. M. Isabelle, J. F. Pankow, E. D. Wagner, and M. J. Plewa. 2012. The Occurrence and Toxicity of Disinfection By-products in European Drinking Waters: Correlations with the HiWATE Epidemiological Program. *Environ. Sci. Technol.*, 46: 12120-12128.
95. Narotsky, M. G., J. G. Pressman, R. J. Miltner, T. F. Speth, L. K. Teuscher, G. E. Rice, S. D. Richardson, D. S. Best, A. McDonald, E. S. Hunter, III, and J. E. Simmons. 2012. Developmental Toxicity Evaluations of Whole Mixtures of Disinfection By-Products using Concentrated Drinking Water in Rats: Gestational and Lactational Effects of Sulfate and Sodium. *Birth Defects Res. Pt. B, Develop. Reprod. Toxicol.*, 95 (3): 202-212.
96. Richardson, S. D. 2012. Environmental Mass Spectrometry: Emerging Contaminants and Current Issues. *Anal. Chem.*, 84 (2): 747-778. (Invited biennial review article).
97. Richardson, S. D. 2012. Mass Spectrometry Identification and Quantification of Toxicologically Important Drinking Water Disinfection By-Products, In: *Comprehensive Environmental Mass Spectrometry*, Chapter 12, Lebedev, A.T. (ed.); ILM Publications, St. Albans, United Kingdom, pp 263-285. (Invited book chapter).
98. Valsania, M. C., F. Fasano, S. D. Richardson, and M. Vincenti. 2012. Investigation of the Degradation of Cresols in the Treatments with Ozone. *Water Res.*, 46: 2795-2804.
99. Duirk, S. E., C. Lindell, C. C. Cornelison, J. Kormos, T. A. Ternes, M. Attene-Ramos, J. Osiol, E. D. Wagner, M. J. Plewa, and S. D. Richardson. 2011. Formation of Toxic Iodinated Disinfection By-Products from Compounds Used in Medical Imaging. *Environ. Sci. Technol.*, 45 (16): 6845-6854.
100. Boyd, J. M., S. E. Hrudey, S. D. Richardson, and X.-F. Li. 2011. Solid Phase Extraction and High Performance Liquid Chromatography Mass Spectrometry Analysis of Nitrosamines in Treated Drinking Water and Wastewater. *Trends Anal. Chem.*, 30 (9): 1410-1421.
101. Richardson, S. D., and C. Postigo. 2011. Drinking Water Disinfection By-Products, In: *The Handbook of Environmental Chemistry*, Barcelo, D. (ed.); Springer-Verlag, Berlin, Germany. (Invited book chapter).
102. Richardson, S. D., and T. A. Ternes. 2011. Water Analysis: Emerging Contaminants and Current Issues. *Anal. Chem.*, 83 (12): 4614-4648. (Invited biennial review article).
103. Richardson, S. D. 2011. Disinfection By-Products: Formation and Occurrence of Drinking Water, In: *The Encyclopedia of Environmental Health*, Vol. 2, Nriagu, J.O. (ed.); Elsevier: Burlington, pp 110-136. (Invited encyclopedia article).
104. Smith, E. M.; M. J. Plewa, C. L. Lindell, S. D. Richardson, and W. A. Mitch. 2010. Comparison of Byproduct Formation in Waters Treated with Chlorine and Iodine: Relevance to Point-of-Use

- Treatment. *Environ. Sci. Technol.*, 44 (22): 8446-8452.
105. Pressman, J. G., S. D. Richardson, T. F. Speth, R. J. Miltner, M. G. Narotsky, E. S. Hunter, III, G. E. Rice, L. E. Teuschler, A. McDonald, S. Parvez, S. W. Krasner, H. S. Weinberg, A. B. McKague, C. J. Parrett, N. Bodin, R. Chinn, C.-F. T. Lee, and J. E. Simmons. Concentration, Chlorination, and Chemical Analysis of Drinking Water Disinfection Byproduct Mixtures Health Effects Research: U.S. EPA's Four Lab Study. 2010. *Environ. Sci. Technol.*, 44 (19): 7184-7192.
  106. Richardson, S. D., D. M. DeMarini, M. Kogevinas, P. Fernandez, E. Marco, C. Lourencetti, C. Ballester, D. Heederik, K. Meliefste, A. B. McKague, R. Marcos, L. Font-Ribera, J. O. Grimalt, and C. M. Villaneuva. 2010. What's in the Pool? A Comprehensive Identification of Disinfection By-Products and Assessment of Mutagenicity of Chlorinated and Brominated Swimming Pool Water. *Environ. Health Perspect.*, 118 (11): 1523-1530.
  107. Richardson, S. D. 2010. Environmental Mass Spectrometry: Emerging Contaminants and Current Issues. *Anal. Chem.*, 82 (12): 4242-4774. (Invited biennial review article).
  108. Plewa, M. J., J. E. Simmons, S. D. Richardson, and E. D. Wagner. 2010. Mammalian Cell Cytotoxicity and Genotoxicity of the Haloacetic Acids. A Major Class of Drinking Water Disinfection By-Products. *Environ. Molec. Mutagenesis*, 51 (8-9): 871-878.
  109. LaKind, J. S., S. D. Richardson, and B. C. Blount. 2010. The Good, the Bad, and the Volatile – Can We Have Both Healthy Pools and Healthy People? *Environ. Sci. Technol.*, 44 (9): 3205-3210. (Article chosen for cover of the journal).
  110. Vincenti, M., F. Fasano, M. C. Valsania, P. Guarda, and S. D. Richardson. 2010. Application of the Novel 5-Chloro-2,2,3,3,4,4,5,5-octafluoro-1-pentylchloroformate Derivatizing Agent for the Direct Determination of Highly Polar Water Disinfection Byproducts. *Anal. Bioanal. Chem.*, 397 (1): 43-54.
  111. Richardson, S. D. 2009. Water Analysis: Emerging Contaminants and Current Issues. *Anal. Chem.*, 81 (12): 4645-4677. (Invited biennial review article).
  112. Richardson, S. D. 2009. Disinfection By-Products and Drinking Water Treatment. In *Drinking Water – Sources, Sanitation and Safeguarding*. Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning: Stockholm Sweden. (Invited book chapter for World Water Week book).
  113. Weisel, C. P., S. D. Richardson, B. Nemery, G. Aggazzotti, E. Baraldi, E. R. Blatchley, III, B. C. Blount, K-H. Carlsen, P. A. Eggleston, F. H. Frimmel, M. Goodman, G. Gordon, S. A. Grinshpun, D. Heederik, M. Kogevinas, J. S. LaKind, M. J. Nieuwenhuijsen, F. C. Piper, S. A. Sattar. 2009. Childhood Asthma and Environmental Exposures at Swimming Pools: State of the Science and Research Recommendations. *Environ. Health Perspect.*, 117 (4): 500-507.
  114. Richardson, S. D., C. Rav-Acha, and G. D. Simpson. 2009. Chlorine Dioxide Chemistry, Reactions, and Disinfection By-Products. In *State of the Science of Chlorine Dioxide in Drinking Water*, Water Research Foundation and Fondazione AMGA: Denver, CO. (Invited book chapter).
  115. Richardson, S. D., F. Fasano, J. J. Ellington, F. G. Crumley, K. M. Buettner, J. J. Evans, B. C. Blount, L. K. Silva, T. J. Waite, G. W. Luther, A. B. McKague, R. J. Miltner, E. D. Wagner, and M. J. Plewa. 2008. Occurrence and Mammalian Cell Toxicity of Iodinated Disinfection Byproducts in Drinking Water. *Environ. Sci. Technol.*, 42 (22): 8330-8338.



116. Plewa, M. J., M. G. Muellner, S. D. Richardson, F. Fasano, K. M. Buettner, Y.-T. Woo, A. B. McKague, and E. D. Wagner. 2008. Occurrence, Synthesis, and Genotoxicity of Haloacetamides: An Emerging Class of Nitrogenous Drinking Water Disinfection Byproducts. *Environ. Sci. Technol.*, 42 (3): 955-961.
117. Richardson, S. D., A. D. Thruston, Jr., S. W. Krasner, H. S. Weinberg, R. J. Miltner, M. G. Narotsky, and J. E. Simmons. 2008. Integrated Disinfection Byproducts Mixtures Research: Comprehensive Characterization of Water Concentrates Prepared from Chlorinated and Ozonated/Postchlorinated Drinking Water. *J. Toxicol. Environ. Health*, Pt. A, 71: 1165-1186.
118. Simmons, J. E., S. D. Richardson, T. F. Speth, R. J. Miltner, G. Rice, K. M. Schenck, E. S. Hunter, III, and L. K. Teuschler. 2008. Research Issues Underlying the Four-Lab Study: Integrated Disinfection Byproducts Mixtures Research. *J. Toxicol. Environ. Health*, Pt. A, 71: 1125-1132.
119. Miltner, R. J., T. F. Speth, S. D. Richardson, S. W. Krasner, H. S. Weinberg, and J. E. Simmons. 2008. Integrated Disinfection Byproducts Mixtures Research: Disinfection of Drinking Waters by Chlorination and Ozonation/Postchlorination Treatment Scenarios. *J. Toxicol. Environ. Health*, Pt. A, 71: 1133-1148.
120. Speth, T. F., R. J. Miltner, S. D. Richardson, and J. E. Simmons. 2008. Integrated Disinfection Byproducts Mixtures Research: Concentration by Reverse Osmosis Membrane Techniques of Disinfection Byproducts from Water Disinfected by Chlorination and Ozonation/Postchlorination. *J. Toxicol. Environ. Health*, Pt. A, 71: 1149-1164.
121. Rice, G., L. K. Teuschler, S. D. Richardson, T. F. Speth, and J. E. Simmons. 2008. Integrated Disinfection Byproducts Mixtures Research: Assessing Reproductive and Developmental Risks Posed by Complex Disinfection Byproduct Mixtures. *J. Toxicol. Environ. Health*, Pt. A, 71: 1222-1234.
122. Richardson, S. D. 2008. Environmental Mass Spectrometry: Emerging Contaminants and Current Issues. *Anal. Chem.*, 80 (12): 4373-4402. (Invited biennial review article).
123. Plewa, M. J., E. D. Wagner, M. G. Muellner, K.-M. Hsu, and S. D. Richardson. 2008. Comparative Mammalian Cell Toxicity of N-DBPs and C-DBPs. In *Disinfection By-Products in Drinking Water: Occurrence, Formation, Health Effects, and Control*, Karanfil, T.; Krasner, S. W.; Westerhoff, P.; Xie, Y., Eds. American Chemical Society: Washington, D.C. (Invited book chapter).
124. Muellner, M. G., E. D. Wagner, K. McCalla, S. D. Richardson, Y.-T. Woo, and M. J. Plewa. 2007. Haloacetonitriles vs. Regulated Haloacetic Acids: Are Nitrogen Containing DBPs More Toxic? *Environ. Sci. Technol.*, 41 (2): 645-651.
125. Zwiener, C., S. D. Richardson, D. M. DeMarini, T. Grummt, T. Glauner, and F. H. Frimmel. 2007. Drowning in Disinfection By-Products? Swimming Pool Water Quality Reconsidered. *Environ. Sci. Technol.*, 41 (2): 363-372.
126. Richardson, S. D., M. J. Plewa, E. D. Wagner, R. Schoeny, and D. M. DeMarini. Occurrence, Genotoxicity, and Carcinogenicity of Emerging Disinfection By-Products in Drinking Water: A Review and Roadmap for Research. 2007. *Mutat. Res.*, 636: 178-242. (Invited review article for special thematic issue on Complex Mixtures).
127. Richardson, S. D. Water Analysis: Emerging Contaminants and Current Issues. 2007. *Anal. Chem.*,

- 79(12): 4295-4324. (Invited biennial review article).
128. Zwiener, C., S. D. Richardson, D. M. DeMarini, T. Grummt, T. Glauner, F. H. Frimmel. 2007. Drowning in Disinfection Byproducts? Swimming Pool Water Quality. *J. Australian Water Assoc.*, November, 25-27. (Invited).
  129. Krasner, S. W., H. S. Weinberg, S. D. Richardson, S. Pastor, R. Chinn, M. J. Scilimenti, G. Onstad, and A. D. Thruston, Jr. 2006. The Occurrence of a New Generation of Disinfection Byproducts. *Environ. Sci. Technol.*, 40 (23): 7175-7185.
  130. Cemeli, E., E. D. Wagner, D. Anderson, S. D. Richardson, and M. J. Plewa. 2006. Modulation of the Cytotoxicity and Genotoxicity of the Drinking Water DBP Iodoacetic Acid by Suppressors of Oxidative Stress. *Environ. Sci. Technol.*, 40 (6): 1878-1883.
  131. Richardson, S. D. Environmental Mass Spectrometry: Emerging Contaminants and Current Issues. 2006. *Anal. Chem.* 78 (12): 4021-4046. (Invited biennial review article).
  132. Vincenti, M., S. Biazzi, N. Ghiglione, M. C. Valsania, and S. D. Richardson. 2005. Comparison of Highly-Fluorinated Chloroformates as Direct Aqueous Sample Derivatizing Agents for Hydrophilic Analytes and Drinking Water Disinfection By-Products. *J. Am. Soc. Mass Spectrom.*, 16 (6): 803-813.
  133. Richardson, S. D., and T. Ternes. 2005. Water Analysis: Emerging Contaminants and Current Issues. *Anal. Chem.*, 77 (12): 3807-3838. (Invited biennial review article).
  134. Zwiener, C., and S. D. Richardson. 2005. Drinking Water Disinfection By-Product Analysis by LC/MS and LC/MS/MS. *Trends Anal. Chem.*, 24 (7): 613-621. (Invited review article for special thematic issue on Liquid Chromatography-Tandem Mass Spectrometry).
  135. Richardson, S. D. 2005. New Disinfection By-Product Issues: Emerging DBPs and Alternative Routes of Exposure, *Global Nest*, 7 (1): 43-60. (Invited article for special thematic issue on DBPs).
  136. Richardson, S. D. 2005. Emerging Drinking Water Disinfection By-Products and New Health Issues. In *Environmental Exposure and Health*, WIT Press, pp. 91-94. (Invited book chapter).
  137. Plewa, M. J., E. D. Wagner, S. D. Richardson, A. D. Thruston, Jr., Y.-T. Woo, and A. B. McKague. 2004. Chemical and Biological Characterization of Newly Discovered Iodoacid Drinking Water Disinfection Byproducts. *Environ. Sci. Technol.*, 38 (18): 4713-4722.
  138. Plewa, M. J., E. D. Wagner, P. Jazwierska, S. D. Richardson, P. H. Chen, and A. B. McKague. 2004. Halonitromethane Drinking Water Disinfection Byproducts: Chemical Characterization and Mammalian Cell Cytotoxicity and Genotoxicity. *Environ. Sci. Technol.*, 38(1): 62-68.
  139. Simmons, J. E., L. K. Teuschler, C. Gennings, T. F. Speth, S. D. Richardson, R. J. Miltner, M. G. Narotsky, K. D. Schenck, E. S. Hunter, III, R. C. Hertzberg, III, and G. Rice. 2004. Component-Based and Whole-Mixture Techniques for Addressing the Toxicity of Drinking Water Disinfection Byproducts Mixtures. *J. Toxicol. Environ. Health*, 67: 741-754.
  140. Kundu, B., S. D. Richardson, P. D. Swartz, P. P. Matthews, A. M. Richard, and D. M. DeMarini. 2004. Mutagenicity in Salmonella of Halonitromethanes: A Recently Recognized Class of Disinfection By-Product in Drinking Water. *Mutat. Res.*, 562: 39-65.
  141. Kundu, B., S. D. Richardson, C. A. Granville, D. T. Shaughnessy, N. M. Hanley, P. D. Swartz, A. M.

- Richard, and D. M. DeMarini. 2004. Comparative Mutagenicity of Halomethanes and Halonitromethanes in Salmonella TA100: Structure-Activity Analysis and Mutation Spectra. *Mutat. Res.*, 554: 335-350.
142. Monarca, S., C. Zani, S. D. Richardson, A. D. Thruston, Jr., M. Moretti, D. Feretti, and M. Villarini. 2004. A New Approach to Evaluating the Toxicity and Genotoxicity of Disinfected Drinking Water. *Water Res.*, 38: 3809-3819.
143. Guzzella, L., S. Monarca, C. Zani, D. Feretti, I. Zerbini, A. Buschini, P. Poli, C. Rossi, and S. D. Richardson. 2004. In Vitro Potential Genotoxic Effects of Surface Drinking Water Treated with Chlorine and Alternative Disinfectants. *Mutat. Res.*, 564: 179-193.
144. Vincenti, M., N. Ghiglione, M. C. Valsania, P. Davit, and S. D. Richardson. 2004. General Synthesis of Perfluorinated Chloroformates and Their Use as Derivatizing Agents for Highly Hydrophilic Compounds and Drinking Water Disinfection Byproducts. *Helv. Chim. Acta*, 87: 370-375.
145. Richardson, S. D. 2004. Environmental Mass Spectrometry: Emerging Contaminants and Current Issues. *Anal. Chem.*, 76 (12): 3337-3364. (Invited biennial review article).
146. Richardson, S. D. 2004. Review of book, *Drinking Water Regulation and Health*, F. W. Pontius, ed. *J. Environ. Qual.*, 33: 1162-1163. (Invited).
147. Choi, J., and Richardson, S. D. 2004. Formation of Halonitromethanes in Drinking Water. Proceedings of the Water Quality Technology Conference, American Water Works Association.
148. Glezer, V., O. Juraev, and S. D. Richardson. 2004. Tribromopyrrole: Its Appearance in the Environment. *Chem. Heterocyclic Compounds*, 39 (12): 1647-1648. (Invited).
149. Richardson, S. D., A. D. Thruston, Jr., C. Rav-Acha, L. Groisman, I. Popilevsky, V. Glezer, A. B. McKague, M. J. Plewa, and E. D. Wagner. 2003. Tribromopyrrole and Other DBPs Produced by the Disinfection of Drinking Water Rich in Bromide. *Environ. Sci. Technol.*, 37 (17): 3782-3793.
150. Richardson, S. D. 2003. Water Analysis: Emerging Contaminants and Current Issues. *Anal. Chem.*, 75 (12): 2831-2857. (Invited biennial review article).
151. Richardson, S. D. 2003. Disinfection By-Products and Other Emerging Contaminants in Drinking Water. *Trends Anal. Chem.*, 22 (10):666-684. (Invited review article for special thematic issue on Emerging Pollutants in Water Analysis).
152. Chen, P. H., S. D. Richardson, S. W. Krasner, G. Majetich, and G. L. Glish. 2002. Hydrogen Abstraction and Decomposition of Tribromonitromethane and Other Trihalo Compounds by GC/MS. *Environ. Sci. Technol.*, 36 (15): 3362-3371.
153. Simmons, J. E., S. D. Richardson, T. F. Speth, R. J. Miltner, G. Rice, K. M. Schenck, E. S. Hunter, III, and L. K. Teuschler. 2002. Development of a Research Strategy for Integrated Technology-Based Toxicological and Chemical Evaluation of Complex Mixtures of Drinking Water Disinfection Byproducts. *Environ. Health Perspec.*, 110 (Supp. 6): 1013-1024.
154. Arbuckle, T. E., S. E. Hrudey, S. W. Krasner, J. R. Nuckols, S. D. Richardson, P. Singer, P. Mendola, L. Dodds, C. Weisel, D. L. Ashley, K. L. Froese, R. A. Pegram, I. R. Schultz, J. Reif, A. M. Bachand, F. M. Benoit, M. Lynberg, C. Poole, and K. Waller. 2002. Assessing Exposure in Epidemiologic

- Studies to Disinfection By-Products in Drinking Water: Report from an International Workshop. *Environ. Health Perspec.*, 110 (Supp. 1): 53-60.
155. Richardson, S. D., J. E. Simmons, and G. Rice. 2002. DBPs: The Next Generation. *Environ. Sci. Technol.*, 36 (9):198A-205A. (Invited feature article).
  156. Richardson, S. D. 2002. Environmental Mass Spectrometry: Emerging Contaminants and Current Issues. *Anal. Chem.*, 74 (12):2719-2742. (Invited biennial review article).
  157. Richardson, S. D. 2002. The Role of GC/MS and LC/MS in the Discovery of Drinking Water Disinfection By-Products. *J. Environ. Monit.*, 4 (1):1-9. (Invited article).
  158. Monarca, S., S. D. Richardson, D. Feretti, M. Grotto, A. D. Thruston, Jr., C. Zani, G. Navazio, P. Ragazzo, I. Zerbini, and A. Alberti. 2002. Mutagenicity and Disinfection By-Products in Surface Drinking Water Disinfected with Peracetic Acid. *Environ. Toxicol. Chem.*, 21 (2): 309-319.
  159. Weinberg, H. S., S. W. Krasner, S. D. Richardson, and A. D. Thruston, Jr. The Occurrence of Disinfection By-Products (DBPs) of Health Concern in Drinking Water: Results of a Nationwide DBP Occurrence Study. EPA/600/R02/068. U.S. Environmental Protection Agency, National Exposure Research Laboratory, Athens, GA. 2002. [www.epa.gov/athens/publications/EPA\\_600\\_R02\\_068.pdf](http://www.epa.gov/athens/publications/EPA_600_R02_068.pdf).
  160. Couillard, L. A., C. Lewis, P. Klappa, S. D. Richardson, and A. D. Thruston, Jr. 2002. Incorporation of Expanded Ozonation Disinfection By-Products as Analytes into the D/DBP Rule Monitoring Effort. Proceedings of the Water Quality Technology Conference, American Water Works Association.
  161. Krasner, S. W., R. Chinn, S. J. Pastor, M. J. Scilimenti, S. D. Richardson, A. D. Thruston, Jr., and H. W. Weinberg. 2002. Relationships Between the Different Classes of DBPs: Formation, Specation, and Control. Proceedings of the Water Quality Technology Conference, American Water Works Association.
  162. Richardson, S. D., A. D. Thruston, Jr., C. Rav-Acha, L. Groisman, I. Popilevsky, and V. Glezer. 2001. Chlorine Dioxide DBPs: Overview and Results of Recent Work. Proceedings of the International Symposium on Chlorine Dioxide, Fourth International Symposium, American Chemistry Council and the American Water Works Association Research Foundation. (Invited article).
  163. Krasner, S. W., S. Pastor, R. Chinn, M. J. Scilimenti, H. S. Weinberg, and S. D. Richardson. 2001. The Occurrence of a New Generation of DBPs (Beyond the ICR). Proceedings of the Water Quality Technology Conference, American Water Works Association.
  164. Weinberg, H. S., S. W. Krasner, and S. D. Richardson. 2001. Determination of New Carbonyl-Containing Disinfection By-Products in Drinking Water. Proceedings of the Water Quality Technology Conference, American Water Works Association.
  165. Richardson, S. D. 2001. Water Analysis. *Anal. Chem.*, 73 (12): 2719-2734. (Invited biennial review article).
  166. Richardson, S. D. 2001. Mass Spectrometry in Environmental Sciences. *Chem. Rev.*, 101 (2): 211-254. (Invited review article).
  167. Richardson, S. D., T. V. Caughran, T. Poiger, Y. Guo, and F. G. Crumley. 2000. Application of DNPH Derivatization with LC/MS to the Identification of Polar Carbonyl Disinfection By-Products in

Drinking Water. *Ozone Sci. Engin.*, 22 (6): 653-675.

168. Richardson, S. D. 2000. Environmental Mass Spectrometry. *Anal. Chem.*, 72 (18) :4477-4496. (Invited biennial review article).
169. Richardson, S. D., A. D. Thruston, Jr., T. V. Caughran, P. H. Chen, T. W. Collette, K. M. Schenck, B. W. Lykins, Jr., C. Rav-Acha, and V. Glezer. 2000. Identification of New Drinking Water Disinfection By-Products from Ozone, Chlorine Dioxide, Chloramine, and Chlorine. *Water, Air, Soil Pollut.* 123 (1): 95-102. (Invited article).
170. Richardson, S. D., T. V. Caughran, T. Poiger, Y. Guo, and F. G. Crumley. 2000. Identification of Polar Drinking Water Disinfection By-Products Using LC/MS. In *Natural Organic Matter and Disinfection By-Products*, American Chemical Society: Washington, D.C., pp. 374-388. (Invited book chapter).
171. Richardson, S. D., A. D. Thruston, Jr., T. V. Caughran, P. H. Chen, Y. Guo, T. W. Collette, T. L. Floyd, K. M. Schenck, and B. W. Lykins, Jr. 2000. Identification of New Drinking Water Disinfection By-Products Formed in the Presence of Bromide. In *Natural Organic Matter and Disinfection By-Products*, American Chemical Society: Washington, D.C., pp. 389-402. (Invited book chapter).
172. Poiger, T., S. D. Richardson, and G. L. Baughman. 2000. Analysis of Anionic Metallized Azo and Formazan Dyes by Capillary Electrophoresis/Mass Spectrometry. *J. Chromatogr. A*, 886: 259-270.
173. Poiger, T., S. D. Richardson, and G. L. Baughman. 2000. Identification of Reactive Dyes in Spent Dye baths and Wastewater by Capillary Electrophoresis/Mass Spectrometry. *J. Chromatogr. A*, 886: 271-282.
174. Gonzalez, A. C., S. W. Krasner, H. Weinberg, and S. D. Richardson. 2000. Determination of Newly Identified Disinfection By-Products in Drinking Water. *Proceedings of the Water Quality Technology Conference*, American Water Works Association.
175. Onstad, G. D., H. S. Weinberg, S. W. Krasner, and S. D. Richardson. 2000. Evolution of Analytical Methods for Halogenated Furanones in Drinking Water. *Proceedings of the Water Quality Technology Conference*, American Water Works Association.
176. Richardson, S. D. 1999. Water Analysis. *Anal. Chem.*, 71 (12): 181-215. (Invited biennial review article).
177. Richardson, S. D., A. D. Thruston, Jr., T. V. Caughran, P. H. Chen, T. W. Collette, T. L. Floyd, K. M. Schenck, B. W. Lykins, Jr., G.-R. Sun, and G. Majetich. 1999. Identification of New Ozone Disinfection By-Products in Drinking Water. *Environ. Sci. Technol.*, 33: 3368-3377.
178. Richardson, S. D., A. D. Thruston, Jr., T. V. Caughran, P. H. Chen, T. W. Collette, T. L. Floyd, K. M. Schenck, and B. W. Lykins, Jr., G.-R. Sun, and G. Majetich. 1999. Identification of New Drinking Water Disinfection Byproducts Formed in the Presence of Bromide. *Environ. Sci. Technol.*, 33: 3378-3383.
179. Richardson, S. D., T. V. Caughran, A. D. Thruston, Jr., T. W. Collette, K. M. Schenck, and B. W. Lykins, Jr. 1999. Identification of Drinking Water Disinfection By-Products from Chlorine Dioxide, Ozone, Chloramine, and Chlorine. *Disinfection By-Products in Drinking Water -- Current Issues*, Proceedings of the International Conference on Disinfection By-Products: The Way Forward, Royal Society of Chemistry. (Invited article).

180. Richardson, S. D., T. W. Collette, P. C. Price, F. A. Genicola, J. W. Jenks, A. D. Thruston, Jr., and J. J. Ellington. 1999. Identification of Drinking Water Contaminants in the Course of a Childhood Cancer Investigation in Toms River, NJ. *J. Expos. Anal. Environ. Epidemiol.*, 9: 200-216. (Invited article).
181. Richardson, S. D., A. D. Thruston, Jr., T. V. Caughran, P. H. Chen, T. Poiger, Y. Guo, T. W. Collette, F. G. Crumley, T. L. Floyd, K. M. Schenck, and B. W. Lykins, Jr. Identification of Drinking Water Disinfection By-Products from Ozone, Ozone-Chlorine, and Ozone-Chloramine. *Proceedings of the 14th Ozone World Congress*, International Ozone Association, 1999, pp. 607-617.
182. Rice, G., L. K. Teuschler, J. Cohen, C. Moudgal, B. Bruce, P. Murphy, J. C. Lipscomb, R. J. Miltner, S. D. Richardson, and R. M. Clark. 1999. Risk Assessment of Complex Mixtures of Disinfection By-Products (DBPs): Methods for Considering Unidentified DBPs. International Life Sciences Institute Workshop Proceedings, *The Second International Conference on The Safety of Water Disinfection: Balancing Chemical and Microbial Risks*.
183. Richardson, S. D., T. V. Caughran, T. Poiger, Y. Guo, and F. G. Crumley. 1999. Identification of Polar Drinking Water Disinfection By-Products With LC/MS. Proceedings of the 1999 Georgia Water Resources Conference. (Invited article).
184. Richardson, S. D. Drinking Water Disinfection By-Products. *The Encyclopedia of Environmental Analysis and Remediation*, John Wiley & Sons, 1998, Vol. 3, pp. 1398-1421. (Invited review article).
185. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, T. V. Sullins, K. S. Patterson, and B. W. Lykins, Jr. 1998. Chemical By-Products of Chlorine and Alternative Disinfectants. *Food Technol.*, 52 (4): 58-61. (Invited feature article).
186. Richardson, S. D., A. D. Thruston, Jr., T. V. Caughran, P. H. Chen, Y. Guo, T. W. Collette, F. G. Crumley, T. L. Floyd, K. M. Schenck, and B. W. Lykins, Jr. 1998. Identification of New Disinfection By-Products Using GC/MS, LC/MS, and GC/IR. Proceedings of the Water Quality Technology Conference, Workshop on 'Innovative Technologies for Drinking Water Analysis', American Water Works Association. (Invited article).
187. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, K. S. Patterson, and B. W. Lykins, Jr. 1998. Alternative Disinfectants for Drinking Water. In *Chlorine and Chlorine Compounds in the Paper Industry*, Ann Arbor Press, pp. 183-192. (Invited book chapter).
188. Richardson, S. D. 1997. Disinfection By-Products: Identification and Future Regulations. In *Chlorine Dioxide and Disinfection*, C.I.P.A. S.r.l., Milan, Italy. Proceedings of the First European Symposium on Chlorine Dioxide and Disinfection, pp. 51-60. (Invited book chapter).
189. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, K. S. Patterson, B. W. Lykins, Jr., and J. C. Ireland. 1996. Identification of TiO<sub>2</sub>/UV Disinfection Byproducts in Drinking Water. *Environ. Sci. Technol.*, 30 (11): 3327-3334.
190. Patterson, K. S., S.D. Richardson, and B. W. Lykins, Jr. 1995. Mutagenicity of Drinking Water Following Disinfection. *J. Water SRT--Aqua*, 44 (1): 1-9.
191. Richardson, S. D. 1995. Drinking Water Disinfection By-Products. *1996 Yearbook of Science & Technology*, McGraw-Hill, New York, 1995, pp. 365-367. (Invited article).

192. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, K. S. Patterson, B. W. Lykins, Jr., G. Majetich, and Y. Zhang. 1994. Multispectral Identification of Chlorine Dioxide Disinfection Byproducts in Drinking Water. *Environ. Sci. Technol.*, 28: 592-599.
193. Collette, T. W., S. D. Richardson, and A. D. Thruston, Jr. 1994. Identification of Bromohydrins in Ozonated Waters. *Appl. Spectrosc.*, 48 (10): 1181-1192.
194. Richardson, S. D. 1994. Scoping the Chemicals in Your Drinking Water. *Today's Chemist at Work*, 3 (3): 29-32. (Invited feature article).
195. Richardson, S. D., A. D. Thruston, Jr., J. M. McGuire, and E. J. Weber. 1993. Structural Characterization of Reactive Dyes Using Liquid Secondary Ion Mass Spectrometry/Tandem Mass Spectrometry. *Org. Mass Spectrom.*, 28: 619-625.
196. Cavanagh, J. E., H. S. Weinberg, A. Gold, R. Sangaiah, D. Marbury, W. H. Glaze, T. W. Collette, S. D. Richardson, and A. D. Thruston, Jr. 1992. Ozonation Byproducts: Identification of Bromohydrins from the Ozonation of Natural Waters with Enhanced Bromide Levels. *Environ. Sci. Technol.*, 26: 1658-1662.
197. Richardson, S. D., A. D. Thruston, Jr., J. M. McGuire, and G. L. Baughman. 1992. Structural Characterization of Sulfonated Azo Dyes Using Liquid Secondary Ion Mass Spectrometry/Tandem Mass Spectrometry. *Org. Mass Spectrom.*, 27: 289-299.
198. Richardson, S. D., A. D. Thruston, Jr., J. M. McGuire, and G. L. Baughman. 1991. Influence of Experimental Conditions on the Liquid Secondary Ion Mass Spectra of Sulfonated Azo Dyes. *Org. Mass Spectrom.*, 26: 826-830.
199. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, and J. M. McGuire. 1991. Application of Multispectral Techniques to the Precise Identification of Aldehydes in the Environment. *Environ. Toxicol. Chem.*, 10: 991-997.
200. Thruston, Jr., A. D., S. D. Richardson, J. M. McGuire, T. W. Collette, and C. D. Trusty. 1991. Multispectral Identification of Alkyl and Chloroalkyl Phosphates from an Industrial Effluent. *J. Am. Soc. Mass Spectrom.*, 2: 419-426.
201. Menger, F. M., S. D. Richardson, and G. R. Bromley. 1989. Ion Conductance Along Lipid Monolayers. *J. Am. Chem. Soc.*, 111: 6893-6894.
202. Menger, F. M., S. D. Richardson, M. G. Wood, Jr., and M. J. Sherrod. 1989. Chain-Substituted Lipids in Monomolecular Films. Effect of Polar Substituents on Molecular Packing. *Langmuir*, 5: 833-838.
203. Mattina, M. J. I., S. D. Richardson, M. Wood, Q. Zhou, M. J. Contado, and F. M. Menger. 1988. Fast Atom Bombardment Mass Spectrometry of Branched-Chain Phosphatidylcholines. *Org. Mass Spectrom.*, 23: 292-296.
204. Menger, F. M., M. G. Wood, S. D. Richardson, Q. Zhou, A. R. Elrington, and M. J. Sherrod. 1988. Chain-Substituted Lipids in Monolayer Films. A Study of Molecular Packing. *J. Am. Chem. Soc.*, 110: 6797-6803.
205. Menger, F. M., S. D. Richardson, and U. V. Venkataram. 1986. Critical Chain-Length in the Amphiphile-Induced Coagulation of Silver Iodide. *J. Chem. Soc., Chem. Commun.*, 13: 1015-1016.

## Press Coverage

- National Geographic magazine*. Provided fact check information (through ACS Experts program) for uses and natural occurrences of sulfur for story on sulfur mining at the Ijen Volcano. March 2023. Writer: Kristina Montville.
- Healthline.com* What's really in tattoo ink? The answer may surprise you. August 24, 2002. Reporter: Beth Ann Mayer. <https://www.healthline.com/health-news/whats-really-in-tattoo-ink-the-answer-may-surprise-you>
- WIS TV*. On-camera interview for Columbia, SC evening news. 'Why experts say the chlorine smell, taste to Columbia's water shouldn't worry you.' July 26, 2022. Reporter: Nick Neville. <https://www.wistv.com/2022/07/27/why-experts-say-chlorine-smell-taste-columbias-water-shouldnt-worry-you/>
- Select Science*. On-camera interview during the 2022 ASMS Conference on the use of mass spectrometry for our new pollen research. June 8, 2022. Reporter: Lois Manton-O'Byrne. <https://thescientistschannel.com/susan-richardson>
- The Daily Gamecock*. 'Experts say Columbia's earthy tap water is safe, unsure when it will be fixed'. June 7, 2022. Reporter: Max White. <https://www.dailygamecock.com/article/2022/06/experts-say-columbias-earthy-tap-water-is-safe-unsure-when-it-will-be-fixed-white-news>
- WIS TV*. On-camera interview for Columbia, SC evening news. 'Timeline unclear for fix to "earthy" taste and smell of Columbia Water.' June 2, 2022. Reporter: Chris Joseph. <https://www.wistv.com/2022/06/02/timeline-unclear-fix-earthy-taste-smell-columbia-water/>
- The Post and Courier*. 'Unclear how much longer Columbia's smelly, earthy-tasting water will last'. May 31, 2022. Reporter: Tyler Fedor. [https://www.postandcourier.com/columbia/news/unclear-how-much-longer-columbias-smelly-earthy-tasting-water-will-last/article\\_73490e72-e125-11ec-951c-e3c877d8e9e8.html](https://www.postandcourier.com/columbia/news/unclear-how-much-longer-columbias-smelly-earthy-tasting-water-will-last/article_73490e72-e125-11ec-951c-e3c877d8e9e8.html)
- Scientific American*. 'Marker Tip—Without Ink!—Makes a Hardy Medical Sampler'. July 1, 2022. Reporter: Maddie Bender. <https://www.scientificamerican.com/article/marker-tip-without-ink-makes-a-hardy-medical-sampler/>
- Science World (Scholastic magazine)*, 'Chlorine Shortage.' May 9, 2022. Story on disinfecting pools with chlorine and the shortage of chlorine tablets due to a fire at a plant in Louisiana. Reporter: Carolyn Malkin. <https://scienceworld.scholastic.com/pages/topics/chemistry.html?page=1>
- Water World*. 'What Are We Drinking?' May 12, 2021. Reporter: Phoebe Small (from Agilent Technologies). <https://www.waterworld.com/drinking-water/treatment/article/14201879/what-are-we-drinking>
- The Analytical Scientist*, 'An Affinity for Water.' April 7, 2021. Reporter: Frank van Geel. <https://theanalyticalscientist.com/fields-applications/an-affinity-for-water>
- Chemical & Engineering News*, 'How a water treatment plant hack could have affected a Florida town's water. Hackers tried to increase the NaOH levels in a town's municipal drinking water.'. February 12, 2021. Reporter: Leigh Krietsch Boerner. <https://cen.acs.org/environment/water/water-treatment-plant-hack-affected/99/web/2021/02>
- Troubled Waters* (online story), 'Life-saving drinking water disinfectants have a "dark side"'. January 15, 2021. Reporter: Lynne Peoples. <https://ensia.com/features/drinking-water-disinfection-byproducts-pathogens/>
- Pool Pro*, 'Study Shows Ionization is Effective.'. Story on our recent research on copper-silver ionization for treating swimming pools. September 5, 2020. Reporter: Michelle Craemer. <https://poolpromag.com/study-shows-ionization-is-effective/>
- Scientific American*, interview on new aptamer method for measuring environmental contaminants in water. September 2, 2020. Reporter: Susan Cossier.
- Finding Genius Podcast*, interview on drinking water DBPs. July 11, 2020. Reporter: Richard Jacobs. <https://findinggeniuspodcast.com/podcasts/cancer-linked-to-water-treatment-by-products-chemist->



[susan-richardson-discusses-dbps/](#).

*CBS Washington, D.C. (WUSA9, online story)*, ‘Verify: No, Dawn doesn’t contain ammonia but yes, you should never mix bleach and ammonia’. July 7, 2020. Reporter: Erin Spaht. <https://www.wusa9.com/article/news/verify/verify-dawn-and-clorox-and-ammonia/65-faab52dc-d57e-48b8-a730-068af6a727d1>.

*CBS Columbia (TV)*, TV evening news story on drinking water in Denmark, SC: ‘Water concerns continue to plague the City of Denmark after controversial chemical taken out of system’. November 26, 2019. Reporter: Loren Thomas. <https://www.wltx.com/article/news/city-of-denmark-to-upgrade-aging-water-system/101-d4ac140b-7439-44be-8f8f-93354c015609?fbclid=IwAR27KWDhgKhJ0SyRCZv95pmFxnvdvdf9udmilohl5dZUrPjFnGrb3Qbg-k>

*University of South Carolina School of Journalism* (on camera) interview for story on drinking water taste and odor issues in Lexington County, SC. October 4, 2019. Reporter: Mae Frances Bing.

*CBS Columbia (TV)*, TV evening news story on taste and odor issues in Columbia and West Columbia ‘Chemistry professor explains problems with water in Lexington County’. September 19, 2019. Reporter: Emily Correll. <https://www.wltx.com/article/news/local/street-squad/chemistry-professor-water-issues-lexington-sc/101-3b4c2824-d05e-4dcb-ab89-9f3ab4a81d9d>

*ACS Reactions Science Video*: ‘White, Green, Black, and Oolong Tea: What’s the Difference?’ Technical advisor for the video. April 2019. <https://www.acs.org/content/acs/en/pressroom/reactions/videos/2019/white-green-black-and-oolong-tea-whats-the-difference.html>

*Chemical & Engineering News*, ‘Chemistry Takes a Holiday’. Story on how chemistry is part of our vacations (including scuba diving). October 2018. Reporter: Karen Emslie.

*Live Science*, ‘Why Do Book Pages Turn Yellow Over Time’. September 22, 2018. Reporter: Aylin Woodward. <https://www.livescience.com/63635-why-paper-turns-yellow.html>

*ABC Columbia (TV)*, TV evening news story (6:00 pm) on DBPs in swimming pools. <https://www.abccolumbia.com/2018/07/23/urine-in-pool-water-can-cause-respiratory-problems-especially-in-kids/>. July 23, 2018

*CBS Columbia (TV)*, TV evening news story (6:00 pm) on DBPs in swimming pools. <https://www.wltx.com/video/news/local/what-chemicals-are-you-swimming-in/101-8213925>. July 24, 2018.

*South Carolina Radio*, Story on DBPs in swimming pools. <https://www.southcarolinaradionetwork.com/2018/07/30/usc-chemistry-professor-chemical-reaction-in-pools-causes-respiratory-issues/>. July 30, 2018.

*Accuweather*, ‘Risks from peeing in the pool’. July 20, 2018.

*Pittcon Thought Leaders Series*, ‘Can GAC Be Used to Control Priority Unregulated DBPs in Drinking Water?’ April 23, 2018.

*USC Times*, ‘Water Water Everywhere’, Cover story on our new wastewater reuse/desalination research. November 2017. Reporter: Chris Horn.

*LC-GC*, webinar on Combining Non-Target and Target Screening of DBPs: Assessing Removal Strategies to Make Drinking Water Safer. June 20, 2017.

*ACS Reactions Science Video*: ‘Should You Pee on a Jellyfish Sting?’ Technical advisor for the video. May 2017.

*Reddit AMA on Swimming Pool Chemistry* (invited by ACS). August 9, 2016.

*Chemical & Engineering News*, ‘What’s in the pool’. Cover story on DBPs in swimming pools. August 1, 2016. Reporter: Celia Arnaud.

*ACS Reactions Science Video*: ‘Is It Ok to Pee in the Pool?’ Technical advisor for the video. August 2016.

*American Chemical Society*, Press release on our new *Environ. Sci. Technol.* publication on swimming pools and spas. ‘Hot tubs and swimming pools are not as clean as you may think’. May 18, 2016.

*Yahoo Beauty*. ‘New Study Highlights Gross (and Even Dangerous) Germs in Pools and Hot Tubs’. Interviewed by Amy Capetta. May 19, 2016.

*Lifetzette.com*. ‘Swim for Your Life: Take These Pool Precautions—to Avoid a Cesspool’. Interviewed by Carleen Wild. May 20, 2016.

*HealthDay News*. ‘Clean Pools Can Still Pose Health Hazards’. Interviewed by Christine Chen. Published June 2, 2016.

LC-GC, Podcast, seminar on Emerging Disinfection Byproducts in Drinking water. April 4, 2016. Interviewed by Kristen Moore.

*Atlas Obscura* (online magazine), April 14, 2016, Interview on bottled water purification (treatment, what is removed, why minerals added, and what minerals are added). Published online April 26, 2016. Reporter: Tao Tao Holmes.

*Wall Street Journal*, April 15, 2016, interview on Flint, Michigan drinking water situation, lead, and iodo-DBP chemistry. Reporter: Kris Maher.

*Lifetzette.com*, interview on April 27, 2016, sent questions by email on drinking water (EPA’s new National Action Plan, Flint, etc.). Published online on 5/2/16. Reporter: Carleen Wild.

WUTM Radio, University of Tennessee-Martin, Interview on drinking water, March 31, 2016. Reporter: Tori Seng.

WCMT Radio (City of Martin, TN), interview on drinking water, March 31, 2016. Reporter: Steve James.

*Story Collider*, San Diego Festival of Science & Technology. March 12, 2016.

ThermoFisher Scientific: On-camera testimonial at Pittcon on what we do with our Total Organic Halogen-IC instrument. March 9, 2016. Reporter: Monika Verma.

KTEP Radio Science Studio (University of Texas-El Paso), interview on drinking water DBPs, February 18, 2016.

*Cosmos Magazine*, Interview at Cleanup 2015, the 6th International Contaminated Site Remediation Conference (on Emerging Environmental Contaminants), Melbourne, Australia, September 15 2015.

LC-GC, *The Thought Leader Series*, on-screen interview of my latest drinking water research. <http://www.chromatographyonline.com/thought-leader-series>. March 2015.

*PBS News Hour* (web version) interview, ‘Scientists trace cancer-causing chemical in drinking water back to methadone’, (for Westerhoff et al. paper on methadone DBPs). May 27, 2015.

*Science* interview (for Gu et al. paper on 4-MCHM chemical spill). May 2015.

*Chemical & Engineering News* (weekly magazine of the American Chemical Society) interview (for Westerhoff et al. paper on methadone DBPs). May 2015.

*Men’s Health Magazine* interview (for swimming pool DBPs/health effects). Published October 2015

*Environmental Health Perspectives*, ‘Examining mixtures of disinfection by-products: rat study shows no effects on reproduction’. June 2015.

*Wired* news story interview on ‘Why does tap water go stale overnight?’: published August 18, 2015.

*Chemical & Engineering News*, ‘Flushing toilets with seawater could protect marine life’ (for my publication on this topic in *ES&T*): published Nov. 10, 2015.

*Chemical & Engineering News* interview (for Rastogi, Leder, and Kummerer’s new *ES&T* paper on Redesigning of existing pharmaceuticals for environmental biodegradability: a tiered approach with  $\beta$ -blocker, propranolol as an example): August 27, 2015. (Reporter: Deirdre Lockwood). Published 9-4-15, ‘Redesigning Drugs for Better Breakdown in the Environment’.

*Chemical & Engineering News*, Environmental Scene, ‘Study in Rats Finds No Major Reproductive Health Effects from Water Disinfection Byproducts’, coverage of new publication on reproductive/developmental effects of chlorinated drinking water in *Environmental Science & Technology*, online story: August 15, 2013.

*Environmental Health Perspectives*, ‘Nontoxic Medical Imaging Agents Form Toxic DBPs’, coverage of new publication on toxic iodo-DBPs from compounds used in medical imaging in *Environmental Science & Technology*. December 2011 (vol. 119, no. 12, pg. A511).

*The Wall Street Journal*, coverage of risks from swimming pool exposures, with information from our *Environmental Health Perspectives* article on ‘What’s in the Pool? A Comprehensive Identification of Disinfection By-Products and Assessment of Mutagenicity of Chlorinated and Brominated Swimming Pool Water’ and two other accompanying papers on the Barcelona Pool Study. August 18,

- 2011.
- Chemical & Engineering News* (weekly magazine of the American Chemical Society), coverage of new publication on toxic iodo-DBPs from compounds used in medical imaging in *Environmental Science & Technology*, online story: July 25, 2011; printed story: August 1, 2011, pg. 37.
- Carolina Peacemaker* (Greensboro, NC newspaper), coverage of issues with chloramination, including information from our 23-city iodo-DBP occurrence study published in *Environmental Science & Technology* (2008). August 8, 2011.
- CBS News Radio, Daily Health News, Aquatics International, Fitness Magazine, and Environmental Health Perspectives (EnviroNews)*, coverage of *Environmental Health Perspectives* article on ‘What’s in the Pool? A Comprehensive Identification of Disinfection By-Products and Assessment of Mutagenicity of Chlorinated and Brominated Swimming Pool Water’ and two other accompanying papers on the Barcelona Pool Study. Series of three pool articles also featured on cover of *Environmental Health Perspectives* (Nov. 2010 issue). September-November 2010.
- Environmental Science & Technology*, ‘Nefarious or Salubrious?’, coverage of feature article on ‘The Good, the Bad, and the Volatile: Can We Have Both Healthy Pools and Healthy People?’, May 1, 2010. Feature article also chosen for the cover of *ES&T*.
- People’s Picture Company (Toronto, Canada), film documentary on ‘Living Downstream’ (focus on chlorinated drinking water, PCBs, and atrazine). May 2009.
- Environmental Health Perspectives, EnvironNews*, ‘Widening the Pool of Factors: Studies Needed to Assess Asthma-Swimming Link’, coverage of article on Childhood Asthma and Environmental Exposures at Swimming Pools: State of the Science and Research Recommendations. April 2009.
- Environmental Science & Technology, Environmental News*, ‘Drinking-Water Analysis Turns up Even More Toxic Compounds’, coverage of article on Occurrence and Mammalian Cell Toxicity of Iodinated DBPs, November 15, 2008.
- Inside EPA*. Major EPA Labs Investigate Reproductive Risks in Drinking Water Byproducts, story on the 2008 4-Lab Study publications in *J. Toxicol. Environ. Health*, November 10, 2008.
- Environmental Science & Technology, Environmental News*, story on Legends of Environmental Chemistry Symposium. September 18, 2008.
- U.S. EPA Office of Research & Development *Science News* story (‘What’s Coming out of the Tap?’). 2008.
- Chemical & Engineering News* (weekly magazine of the American Chemical Society), coverage of new publication on haloamides in *Environmental Science & Technology* and issues involving chloramination, December 24, 2007.
- J. Australian Water Assoc., J. Australian Water Assoc.*, coverage of ‘Drowning in Disinfection By-Products? Swimming Pool Water Quality Reconsidered’. November 25-27, 2007.
- Environmental Science & Technology Science News* (on-line news for journal, *Environmental Science & Technology*), ‘Emerging DBPs in Drinking Water’, coverage of article on Nationwide DBP Occurrence Study, December 1, 2006 (in special issue on Emerging Environmental Contaminants).
- Environmental Science & Technology Science News* (on-line news for journal, *Environmental Science & Technology*), ‘Hamster cells bring byproducts into the library: Are nitrogen-containing disinfection byproducts more toxic than other organic halogens?’, coverage of ASAP article on haloacetonitriles DBPs, December 6, 2006 (on line) & January 15, 2007 (in print).
- Environmental Science & Technology Science News* (on-line news for journal, *Environmental Science & Technology*), ‘Emerging Toxics from Drinking Water Treatment’, coverage of emerging disinfection by-products measured in the Nationwide Occurrence Study, July 26, 2006.
- Science News* (www.sciencenews.org), ‘What’s New in the Water: Survey Tallies Emerging Disinfection By- Products’, coverage of emerging disinfection by-products measured in the Nationwide Occurrence Study, August 5, 2006.
- National Public Radio (NPR)*, Chloramine Report, coverage of potential problems with disinfection by-products when drinking water treatment plants switch to chloramination, June 23, 2006.
- Science Now* (on-line daily news service for the journal, *Science*), coverage of new discovery of iodo-acid DBPs and the potent genotoxicity of iodoacetic acid (and effect of chloramination on their formation),

Sept. 1, 2004.

*Environmental Science & Technology* A-page article, 'More Chloramine Complications', coverage of potential public health implications of nationwide occurrence study, discovery of iodo-acids, and new toxicity research, and controversy surrounding the upcoming Stage 2 DBP Rule, September 15, 2004.

*Environmental Science & Technology Science News* (on-line news for journal, *Environmental Science & Technology*), coverage of new discovery of iodo-acid DBPs and the potent genotoxicity of iodoacetic acid (and effect of chloramination on their formation), August 18, 2004.

*Science News* (www.sciencenews.org), coverage of new discovery of iodo-acid DBPs and the potent genotoxicity of iodoacetic acid (and effect of chloramination on their formation), Sept. 2004.

*Chemical & Engineering News* (weekly magazine of the American Chemical Society), coverage of new discovery of iodo-acid DBPs and the potent genotoxicity of iodoacetic acid (and effect of chloramination on their formation), September 20, 2004.

*Medical News Today* (www.medicalnewstoday.com), coverage of new discovery of iodo-acid DBPs, Sept. 15, 2004.

American Water Works Association Website (Breaking News), coverage of Nationwide DBP Occurrence Study, 2004.

*The Caller-Times* (Corpus Christi, TX, newspaper), coverage of new discovery of iodo-acid DBPs, Sept. 15 and Sept. 16, 2004.

*Water Quality & Health – In the News*, coverage of Nationwide DBP Occurrence Study, March 19, 2004.

*Safe Drinking Water.com News*, coverage of Nationwide DBP Occurrence Study, March 10, 2004.

*Inside EPA.com*, coverage of Nationwide DBP Occurrence Study, March 16, 2004.

American Chemical Society Office of Communications Press Release, 2003 (for *Environ. Sci. Technol.* article entitled, Halonitromethane Drinking Water Disinfection Byproducts: Chemical Characterization and Mammalian Cell Cytotoxicity and Genotoxicity).

*The Athens Banner Herald* (Athens, GA newspaper; for analytical work done in the investigation of chemicals found in well water of a local community with unusually high incidences of cancer), 2003.

*The Alchemist* (UK publication), Profile and drinking water research, April 18, 2002.

American Chemical Society News Service, Press Release, 1999 (for presentations on the Identification of Polar Drinking Water Disinfection By-Products and the Enantiomeric Composition of Chiral Haloacetic Acid and Haloacetonitrile Disinfection By-Products in Drinking Water).

American Chemical Society, Press Conference, Chicago, IL, 1995 (for research on Alternative Disinfectants for Drinking Water).

American Chemical Society News Service, Press Release, 1994 (for research on Alternative Disinfectants for Drinking Water Treatment).

*Chemical & Engineering News* (Letter to the Editor), commendation for high quality of research presented at the ACS Conference, November 27, 1995.

*Environmental Health Perspectives, EnviroNews Focus*, 'What's in the Water: The Disinfectant Dilemma' (coverage of 1994 *Environmental Science & Technology* publication on chlorine dioxide DBPs), January 1995 (vol. 3, no. 1, pp. 30-34).

*Analytical Chemistry*, coverage of presentation given at International Symposium on Environmental Analytical Chemistry on multispectral identification of brominated DBPs in drinking water, September 1, 1993 (vol. 65, no. 17, pg. 759A-761A).

### **Invited Presentations (Including 71 Keynote/Plenary/Convocation Addresses)**

1. Richardson, S. D. Improving Drinking Water Safety: Addressing New Impacts and Identifying Important Toxicity Drivers. **Plenary Address** at the 1st European GREEN Conference. Vodic, Croatia. 2023.

2. Mitch, W.A. and S. D. Richardson. High-molecular-weight By-products of Chlorine Disinfection. *Nature Water* webinar (virtual, invited). 2023.
3. Richardson, S. D. Improving Drinking Water Safety: Addressing New Impacts and Identifying Important Toxicity Drivers. Seminar, University of Rennes (France, virtual). 2023.
4. Richardson, S. D. Emerging DBPs: New Discoveries, Potential Risks, and Promising Solutions. **Keynote Address** at the Hong Kong University of Science & Technology Forum on Innovative Disinfection and Emerging Disinfection Byproducts. (virtual). 2023.
5. Richardson, S. D. Improving Drinking Water Safety: Addressing New Impacts and Identifying Important Toxicity Drivers. Seminar, U.S. EPA, Research Triangle Park. 2023.
6. Richardson, S. D. Improving Drinking Water Safety: Addressing New Impacts and Identifying Important Toxicity Drivers. Seminar, Georgia Institute of Technology. 2023.
7. Richardson, S. D. Improving Drinking Water Safety: Addressing New Impacts and Identifying Important Toxicity Drivers. Seminar, Michigan State University. 2023.
8. Richardson, S. D. Improving Drinking Water Safety: Addressing New Impacts and Identifying Important Toxicity Drivers. Seminar, University of Michigan. 2023.
9. Richardson, S. D. Improving Drinking Water Safety: Addressing New Impacts and Identifying Important Toxicity Drivers. Seminar, University of Southern California. 2023.
10. Richardson, S. D. New TOF Methods to Capture a More Complete Picture of PFAS. Seminar, Orange County Water District (CA), 2023.
11. Richardson, S. D. Identifying Important DBP Forcing Factors in Drinking Water and Capturing a More Complete Picture of PFAS. Seminar, Metropolitan Water District of Southern California, 2023.
12. Richardson, S. D. Improving Drinking Water Safety: New Impacts, Important Toxicity Drivers, and What We Can Do. Seminar, Water Environment Association of Texas & Texas American Water Works Association Coastal Bend Section. Corpus Christi, TX. 2023.
13. Richardson, S. D. Improving Drinking Water Safety: New Impacts, Important Toxicity Drivers, and What We Can Do. Seminar, El Paso Water. El Paso, TX. 2023.
14. Richardson, S. D., A. Forster, Y. Zhang, and D. Westerman. Capturing the PFAS Footprint: LC-MS/MS vs. a New Total Organic Fluorine Method. Webinar (hosted by Phenomenex). 2023.
15. Richardson, S. D. HRMS Uncovers Missing Chemical Disinfection By-Products in Drinking Water. **Keynote address** at the 18th Annual Workshop on Emerging High-Resolution Mass Spectrometry (HRMS) and LC-MS/MS Applications in Environmental Analysis and Food Safety. Barcelona, Spain. 2022.
16. Richardson, S. D., M. T. Aziz, C. O. Granger, D. C. Westerman, S. P. Putnam, and J. L. Ferry. Microseira Wollei and Phormidium Algae More Than Doubles DBP Concentrations and Calculated Toxicity in Drinking Water. American Chemical Society Conference. Chicago, IL. 2022.

17. Richardson, S. D., M. Kilpatrick, A. Perkins, V. Noad, S. Dunham, and D. Cardin. A New Way to Analyze Disinfection By-products in Drinking Water and Complex Matrices with Vacuum Assisted Sorbent Extraction (VASE) and GC-MS. American Chemical Society Conference. San Diego, CA. 2022.
18. Richardson, S. D., J. Li, M. T. Aziz, and C. O. Granger. Are DBPs Formed in My Cup of Tea? Regulated, Priority, and Unknown DBPs. American Chemical Society Conference. San Diego, CA. 2022.
19. Richardson, S. D. Improving Drinking Water Safety: Addressing New Impacts and Identifying Important Toxicity Drivers. Seminar, Clemson University (Department of Civil and Environmental Engineering). 2022.
20. Richardson, S. D. Improving Drinking Water Safety: Addressing New Impacts and Identifying Important Toxicity Drivers. Seminar, Stanford University. 2022.
21. Richardson, S. D. Improving Drinking Water Safety: Addressing New Impacts and Identifying Important Toxicity Drivers. Seminar, University of Toledo. 2022.
22. Richardson, S. D., A. Forster, D. Westerman, and Y. Zhang. Development of New, Robust Total Organic Fluorine Methods to Detect Per- and Polyfluoroalkyl Substances in Industrial Wastewater, River Water, and Air. Thermo Fisher e-learning series on 'Detection and Quantification of PFAS in Air, Water, Soil, and Food Packaging'. 2022.
23. Richardson, S. D. To Regulate or Not to Regulate? What to Do with More Toxic Disinfection By-Products? **Plenary address** at the International Conference on Environmental Science and Technology. Athens, Greece. 2021.
24. Richardson, S. D. The Transforming Power of Chemistry: Uncovering Emerging Water Contaminants and Making Drinking Safer. **Keynote address** at the 2021 Dreyfus Symposium. American Chemical Society Conference (virtual). 2021.
25. Richardson, S. D. Emerging DBPs: New Discoveries, Potential Risks, and Promising Solutions. **Keynote address** at the Central Canadian Symposium on Water Quality Research (virtual). 2021.
26. Richardson, S. D., J. Li, M. T. Aziz, and C. O. Granger. Are DBPs Formed in My Cup of Tea? Regulated, Priority, and Unknown DBPs. 17th Annual High Resolution Mass Spectrometry & LC-MS/MS Workshop. Toronto, Canada (virtual). 2021.
27. Richardson, S. D. Advances in Environmental Analysis: Mass Spectrometry Pushes the Envelope. Pittsburgh Conference (Pittcon) (virtual). 2021.
28. Richardson, S. D. A Career Focused on Improving the Safety of Drinking Water: New Discoveries, Potential Risks, and Promising Solutions. American Chemical Society Conference. Atlanta, GA. 2021.
29. Richardson, S. D. My Experience as a Mentor and Mentee in Government and Academia. American Chemical Society Conference. Atlanta, GA. 2021.
30. Allen, J. M., M. J. Plewa, E. D. Wagner, X. Wei, K. Bokenkamp, K. Hur, A. Jia, H. K. Liberatore, C.-F. T. Lee, R. Shirkhani, S. W. Krasner, and S. D. Richardson. Disinfection by-product drivers of cytotoxicity in U.S. drinking water: Should other DBPs be regulated? American Chemical Society

- Conference. Atlanta, GA. 2021.
31. Richardson, S. D. Emerging DBPs: New Discoveries, Potential Risks, and Promising Solutions. **Keynote address** at the University of Toronto Technology Transfer Day (virtual). 2021.
  32. Richardson, S. D. Emerging DBPs: New discoveries using GC-MS and LC-MS. American Chemical Society Conference (virtual). 2021.
  33. Richardson, S. D. An Unconventional Path to a Rewarding Environmental / Analytical Career. American Chemical Society Conference (virtual). 2021.
  34. Richardson, S. D. Four Lab DBP Concentrates: Important Chemistry Considerations for Animal Exposures and What the Animals Actually Drank. Society of Risk Analysis Webinar (virtual). 2021.
  35. Richardson, S. D. Emerging DBPs: New Discoveries, Potential Risks, and Promising Solutions. Seminar, Minnesota Pollution Control Agency (virtual). 2021.
  36. Richardson, S. D. Emerging DBPs: New Discoveries, Potential Risks, and Promising Solutions. Seminar, University of Nebraska and Nebraska Water Center (virtual). 2021.
  37. Richardson, S. D. Emerging DBPs: New Discoveries, Potential Risks, and Promising Solutions. Seminar, Illinois Institute of Technology, Environmental Analytical Chemistry Class (virtual). 2021.
  38. Richardson, S. D. Needles in Haystacks and Other Follies of Mass Spectrometry: The Practical, the Serendipitous, the Heroic Failures, and the Weird Observations Straight Out of the Twilight Zone. LC-GC ChromTalks: The Benefit of Hindsight in Chromatography Symposium (virtual). 2021.
  39. Richardson, S. D. My Career Path: From Georgia College to Emory to the U.S. EPA to the University of South Carolina. Seminar, Georgia College & State University (virtual). 2021.
  40. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Lecture for Masters students, Department of Chemistry, University of Muenster, Germany. (virtual). 2021.
  41. Richardson, S. D. Emerging DBPs: New Discoveries, Potential Risks, and Promising Solutions. Seminar, Department of Civil and Environmental Engineering, University of South Carolina (virtual). 2021.
  42. Aziz, M. D., D. C. Westerman, C. O. Granger, S. P. Putnam, J. L. Ferry, and S. D. Richardson. Formation of Disinfection By-Products from Harmful Algae. Seminar, School of Public Health, University of South Carolina (virtual). 2021.
  43. Richardson, S. D. Disinfection Byproduct Drivers of Cytotoxicity in U.S. Drinking Water: Should Other DBPs Be Regulated? U.S. EPA Laboratory Technology Information Group (LTIG) Conference (virtual). 2021.
  44. Richardson, S. D. To Regulate or Not to Regulate? What to Do With More Toxic Disinfection By-Products? Haloacetonitriles and IAA Should Be Considered. Conference on Turning the Tide on Legionnaires': Tackling the 96% (virtual). 2021.

45. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. **Herty Medal Award address** at the Georgia Section of the American Chemical Society. Atlanta, GA (online). 2020.
46. Richardson, S. D. Part 1: What's In My Drinking Water? Part 2: An Unconventional Path to a Rewarding Environmental Career. **Award address** at the Herty Medal Undergraduate Research Symposium, Georgia Gwinnett College. Atlanta, GA (virtual). 2020.
47. Richardson, S. D. Emerging DBPs: New Discoveries, Potential Risks, and Promising Solutions. **Plenary address** at the 16th Annual Workshop on Emerging High-Resolution Mass Spectrometry and LC-MS/MS Applications in Environmental Analysis and Food Safety. Barcelona, Spain (virtual). 2020.
48. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. **Plenary address** at the German Mass Spectrometry Society (DGMS) Conference. Muenster, Germany. 2020.
49. Richardson, S. D. To Regulate or Not to Regulate? What to Do With More Toxic Disinfection By-Products? Haloacetonitriles Should Be Considered. **Keynote address** at the U.S. EPA 6-Year Review of the Disinfectants/Disinfection By-Products Rule (virtual). 2020.
50. Richardson, S. D. Emerging DBPs: New Discoveries, Potential Risks, and Promising Solutions. **Keynote address** at the 43<sup>rd</sup> Annual Meeting of the Brazilian Chemical Society (virtual). 2020.
51. Richardson, S. D. The DBP Exposome: Uncovering the Ubiquitous and Mostly Unknown Exposure in Drinking Water. Sanibel Conference on 'Unravelling the Exposome'. Captiva Island, FL. 2020.
52. Westerman, D. C.; Smith, M. L.; Huang, Y.; Abdelraheem, W.; Cochran, K.; Putnam, S. P.; Ferry, J.; Dionysiou, D. D.; Richardson, S. D.: Using High Resolution Mass Spectrometry to Uncover Advanced Oxidation and Disinfection By-Products in Algal and Wastewater-Impacted Drinking Water. American Chemical Society Conference (virtual). 2020.
53. Richardson, S. D., D. D. Dionysiou, and D. L. Schlenk. Removal of Contaminants of Emerging Concern in Water Reuse Applications. Seminar, Sierra Club (virtual). 2020.
54. Richardson, S. D. Emerging DBPs: New Discoveries, Potential Risks, and Promising Solutions. Seminar for the International Forum on Ecological Security and Health, Nanjing University, China (virtual). 2020.
55. Richardson, S. D. Emerging DBPs: New Discoveries, Potential Risks, and Promising Solutions. Seminar, Nankai University, China (virtual). 2020.
56. Richardson, S. D. Identifying Key Drivers of Toxicity in Drinking Water: Sensitive GC-MS Methods Push the Envelope. LC-GC Virtual Symposium featuring 3 invited speakers. 2020.
57. Richardson, S. D. Identifying Key DBP Drivers of Toxicity. American Water Works Association (AWWA) Research Webinar "Disinfection By-Products: Perspectives on Formation, Control and Mitigation". Virtual Symposium featuring 3 invited speakers. 2020.
58. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Seminar, Department of Chemistry, Auburn University (virtual). 2020.



59. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Seminar, Wayne State University (virtual). 2020.
60. Richardson, S. D. Emerging Environmental Contaminants: What's New. Seminar, Arnold School of Public Health, University of South Carolina. 2020.
61. Richardson, S. D. What's in the Wastewater and Drinking Water? State of the Science. **Keynote address** at the International Conference on Chemistry and the Environment (ICCE). Thessaloniki, Greece. 2019.
62. Richardson, S. D. Tackling Unknown DBPs. Gordon Research Conference on Water Disinfection, Byproducts and Health. South Hadley, MA. 2019.
63. Richardson, S. D. Emerging Contaminants: State of the Art and New Discoveries. Seminar, University of Tartu. Tartu, Estonia. 2019.
64. Allen, J. M., M. J. Plewa, D. M. DeMarini, D.M., L. E. Quirk, G. E. Bollar, and S. D. Richardson. Making Pool Water Safer? Using Copper/Silver Electrolysis Disinfectant to Reduce DBP Formation. 8th International Conference for Swimming Pool and Spa. Marseille, France. 2019.
65. Richardson, S. D. Emerging DBPs: State of the Science and New Impacts. **Keynote address** at the American Chemical Society Conference. Orlando, FL. 2019.
66. Richardson, S. D., A. A. Cuthbertson, S. Y. Kimura, H. K. Liberatore, R. S. Summers, D. R. U. Knappe, B. D. Stanford, J. C. Maness, R. E. Mulhern, and M. Selbes. Does GAC with Chlorination Produce Safer Drinking Water? Comprehensive Evaluation of Chlorinated, Brominated, Iodinated, and Nitrogenous DBPs at Full Scale Plants. American Chemical Society Conference. Orlando, FL. 2019.
67. Richardson, S. D. Identifying Unknowns and Why a Thoughtful, Expert Mass Spectral Interpretation Is Still Needed: Lessons Learned from Ron Hites. American Chemical Society Conference. Orlando, FL. 2019.
68. Westerman, D., H. K. Liberatore, S. Putnam, M. Smith, K. H. Cochran, C. Montagner, M. J. Plewa, L. H. Cizmas, J. M. VanBriesen, D. D. Dionysiou, Y. Huang, J. Ferry, D. Schlenk, K. Loftin, T. Anumol, and S. D. Richardson. Transformation Products and Disinfection By-Products in Drinking Water from Impacted Source Waters. American Chemical Society Conference. Orlando, FL. 2019.
69. Richardson, S. D. Emerging Contaminants: State of the Art and New Discoveries. **Keynote address** at the Emerging Contaminants in the Environment Conference. Champaign, IL. 2019.
70. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Seminar, Indiana University. Bloomington, IN. 2019.
71. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Seminar, University of Alberta. Edmonton, Canada. 2019.
72. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Seminar, North Carolina State University. Raleigh, NC. 2019.

73. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Seminar, Clemson University. Clemson, SC. 2019.
74. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Seminar, University of Memphis. Memphis, TN. 2019.
75. Richardson, S. D. Emerging Contaminants: State of the Art and New Discoveries. 3rd Annual Johnson Memorial Technical Lecture, Southern Illinois University at Edwardsville. Edwardsville, IL. 2019.
76. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. 3rd Annual Johnson Memorial Public Lecture, Southern Illinois University at Edwardsville. Edwardsville, IL. 2019.
77. Richardson, S. D. What's in the Wastewater? Setting the Scene. **Plenary address** at the International Conference on Challenges and Solutions related to Xenobiotics and Antimicrobial Resistance in the Framework of Urban Wastewater Reuse: Towards a Blue Circle Society, XENOWAC II. Limassol, Cyprus. 2018.
78. Richardson, S. D. Emerging Contaminants: State of the Art and New Discoveries. **Keynote address** at the 22th International Mass Spectrometry Conference. Florence, Italy. 2018.
79. Richardson, S. D. Mass Spectrometry and the Environment. **Tutorial Keynote address** at the 66th American Society for Mass Spectrometry (ASMS) Conference. San Diego, CA. 2018.
80. Richardson, S. D. Emerging Environmental Contaminants: State of the Art in Chromatography and Mass Spectrometry. **Keynote address** at the 47th International Symposium on High Performance Liquid Chromatography. Washington, D.C. 2018.
81. Richardson, S. D. Desalinated Drinking Water: What Chemicals Are We Drinking and How Safe Is It? **Plenary address** at the 2nd Disinfection and Disinfection By-Products Conference. Beijing, China. 2018.
82. Richardson, S. D. Emerging Environmental Contaminants in Water: State of the Science. **Keynote address** at the 9th International Conference on Environmental Science and Development. Paris, France. 2018.
83. Richardson, S. D. Emerging Contaminants: State of the Art and New Discoveries. **Keynote address** at the U.S. EPA Region 4 State Laboratory Meeting. Frankfurt, KY. 2018
84. Richardson, S. D. Impacts of Hydraulic Fracturing and Wastewater Reuse on Drinking Water. 14<sup>th</sup> Annual LC/MS/MS Workshop on Environmental Applications and Food Safety. Barcelona, Spain. 2018.
85. Richardson, S. D. Discovering New Disinfection By-Products: The U.S.-Muenster Connection. Seminar, University of Muenster, Germany. 2018.
86. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Seminar, Central South University. Changsha, China. 2018.
87. Richardson, S. D. Desalinated Drinking Water: What Chemicals Are We Drinking and How Safe Is It? American Chemical Society Conference. New Orleans, LA. 2018.

88. Richardson, S. D. High Resolution-MS Uncovers New Chemicals of Concern in Drinking Water: Impacts of Hydraulic Fracturing and Wastewater Reuse. American Chemical Society Conference. New Orleans, LA. 2018.
89. Richardson, S. D. Can GAC Be Used to Control Priority Unregulated DBPs in Drinking Water? The Pittsburgh Conference (Pittcon). Orlando, FL. 2018.
90. Richardson, S. D. Recent Advances in Analytical Measurements of Emerging Contaminants in Drinking Water. The Pittsburgh Conference (Pittcon). Orlando, FL. 2018
91. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Seminar, Cornell University. Ithaca, NY. 2018.
92. Richardson, S. D. What's In My Drinking Water? Seminar, Florida International University. Miami, FL. 2018.
93. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Seminar, College of Charleston, Charleston, SC. 2018.
94. Richardson, S. D. New Impacts on Drinking Water and Non-Target Identification of New Disinfection By-Products. **Keynote address** at the 15th International Conference on Environmental Science and Technology (CEST2017). Rhodes, Greece. 2017.
95. Richardson, S. D., S. Y. Kimura, W. W. Zheng, T. N. Hipp, and J. M. Allen. Pretreatment and Method Optimization to Produce a New Total Organic Halogen (TOX) Method for Human Urine in Human Exposure Studies. **Keynote address** at the 9<sup>th</sup> National Conference on Environmental Chemistry. Hangzhou, China. 2017.
96. Richardson, S. D., H. K. Liberatore, M. J. Plewa, D. B. Burnette, L. H. Cizmas, and J. M. VanBriesen. Oil and Gas Wastewater Impacts on Drinking Water: High Resolution-MS Uncovers New Chemical By-Products of Toxicological Concern. 9<sup>th</sup> National Conference on Environmental Chemistry. Hangzhou, China. 2017.
97. Richardson, S. D. Disinfection By-products and Chemical Contaminants In Disinfected Waters: Emerging Issues. 48<sup>th</sup> Annual Meeting of the Environmental Mutagenesis and Genomics Society. Raleigh, NC. 2017.
98. Richardson, S. D. Disinfection By-products and Chemical Contaminants In Disinfected Waters: Emerging Issues. Seminar, U.S. Environmental Protection Agency, Research Triangle Park, NC. 2017.
99. Richardson, S. D. Publishing Your Best Research in Environmental Science & Technology and Environmental Science & Technology Letters. 15th International Conference on Environmental Science and Technology (CEST2017). Rhodes, Greece. 2017.
100. Richardson, S. D., A. A. Cuthbertson, S. Y. Kimura, H. K. Liberatore, D. Knappe, B. Stanford, R. S. Summers, and E. Dickenson. A Toxicity-Weighted Evaluation of GAC Treatment for DBP Management. American Water Works Association Water Quality Technology Conference. Portland, OR. 2017.

101. Richardson, S. D. Identification and Detection Technologies for DBPs. **Keynote address** at the Xiangshan Science Conference. Beijing, China. 2017.
102. Richardson, S. D. Emerging Unregulated DBPs: New Discoveries, New Sources, and Insights Into Toxicity. **Keynote address** at the International Symposium on Toxicity Assessment (ISTA 18). Limeira, Brazil. 2017.
103. Richardson, S. D., A. A. Cuthbertson, S. Y. Kimura, H. K. Liberatore, D. Knappe, B. Stanford, R. S. Summers, and E. Dickenson. Improving the Safety of Drinking Water: Impact of GAC on Removing Precursors of Toxicologically Important Disinfection Byproducts. Seminar, University of Alberta. Edmonton, Canada. 2017.
104. Richardson, S. D. What's In My Drinking Water? Uncovering the Chemicals You Can't See. Seminar, Fudan University. Shanghai, China. 2017.
105. Richardson, S. D. What's In My Drinking Water? Uncovering the Chemicals You Can't See. Seminar, Tongji University. Shanghai, China. 2017.
106. Richardson, S. D. Safe and Sustainable Drinking Water: How Can We Do It? **Keynote address** at the 13<sup>th</sup> Annual LC-MS/MS Workshop on Environmental Applications and Food Safety. Buffalo, NY. 2017.
107. Richardson, S. D., A. Cuthbertson, S. Kimura, H. Liberatore, D. Knappe, B. Stanford, R. S. Summers, and E. Dickenson. Can GAC Be Used to Control Priority Unregulated DBPs in Drinking Water? American Chemical Society Conference. San Francisco, CA. 2017.
108. Richardson, S. D., H. K. Liberatore, M. J. Plewa, L. H. Cizmas, and J. M. VanBriesen. Impacts of Hydraulic Fracturing on Drinking Water: High Resolution-MS Uncovers New Chemical By-Products of Concern. American Chemical Society Conference. San Francisco, CA. 2017.
109. Richardson, S. D. Safe and Sustainable Drinking Water: How Can We Do It? Symposium on "Water Sustainability: Chemists in Pursuit of Clean Water". American Chemical Society Conference. San Francisco, CA. 2017.
110. Richardson, S. D. Combining Non-Target and Target Screening of DBPs. Breakfast seminar, American Society for Mass Spectrometry Conference. Indianapolis, IN. 2017.
111. Richardson, S. D. What's In My Drinking Water? New Impacts and Issues. Seminar, University of Illinois. 2017.
112. Richardson, S. D. The Role of Academia in the Environment-Health Nexus, Lead and Suspected DBP Issues in Flint, Virginia Tech – USC Collaboration. National Council for Science and the Environment Annual Conference. Washington, D. C. 2017.
113. Richardson, S. D. What's In My Drinking Water? Revealing the Chemicals We Can't See. Seminar, University of Iowa. 2017.
114. Richardson, S. D. What's In My Drinking Water? New Impacts and Issues. **Keynote address** at the U.S. Department of Defense South Carolina Junior Science & Humanities Symposium. Columbia, SC. 2017.

115. Richardson, S. D. What's in my drinking water? Uncovering the chemicals you can't see. Seminar, Columbia College, Columbia, SC. 2017
116. Richardson, S. D. Non-Target Identification of New Disinfection By-Products. **Keynote address** at Non-Target 2016: Non-Target Screening of Organic Chemicals for a Comprehensive Environmental Risk Assessment. Monta Verita, Ascona, Switzerland. 2016.
117. Richardson, S. D. Emerging Environmental Contaminants: State of the Science. Seminar, University of Lorraine. Nancy, France. 2016.
118. Richardson, S. D., E. J. Daiber, S. A. Ravuri, H. K. Liberatore, A. A. Cuthbertson, A. Thompson-Klemish, J. D. Byer, J. Binkley, M. Z. Afifi, E. R. Blatchley III, J. E. Schmid, and D. M. DeMarini. Do You Know What Is in Your Pool and Hot Tub? Comprehensive Investigation of Disinfection Byproducts and Mutagenicity. Seminar, University of Alberta. Edmonton, Canada. 2016.
119. Postigo, C., S. D. Richardson, and D. Barcelo. Orbitrap Based Gas Chromatography-Mass Spectrometry to Characterize Semi-Volatile and Volatile Disinfection By-Products in Water. International Mass Spectrometry Conference. Toronto, Canada. 2016.
120. Richardson, S. D., A. A. Cuthbertson, S. Y. Kimura, J. D. Byer, and J. Binkley. A Novel GC-TOF-MS: Quantifying Priority Unregulated Disinfection By-Products with the Sensitivity of SIM while acquiring Full Range Mass Spectra for Unknown Identification. International Mass Spectrometry Conference. Toronto, Canada. 2016.
121. Liberatore, H. K., S. D. Richardson, J. M. VanBriesen, M. J. Plewa, D. B. Burnett, L. H. Cizmas. Impacts of Hydraulic Fracturing on Drinking Water: Disinfection By-Products. Water and Wastewater Short Course: Issues, Challenges, Solutions and New Technologies. College Station, TX. 2016.
122. Kimura, S. Y., A. A. Cuthbertson, J. M. Allen, and S. D. Richardson. Identification and Quantification of Priority Disinfection By-Products Using High Resolution Mass Spectrometry. Southeast Regional American Chemical Society (SERMACS) Conference. Columbia, SC. 2016.
123. Cuthbertson, A. A., S. Y. Kimura, S. D. Richardson, D. Knappe, C. Seidel, R. S. Summers, B. Stanford, and E. Dickenson. Use of Granular Activated Carbon (GAC) for Controlling Emerging Disinfection By-Products (DBPs). Southeast Regional American Chemical Society (SERMACS) Conference. Columbia, SC. 2016.
124. Richardson, S. D. Emerging DBPs in Drinking Water: What Are the Current Issues? Southeastern Regional Technology Transfer Conference, American Water Works Association. Greenville, SC. 2016.
125. Richardson, S. D., Postigo, C., Joseph, C. M., Liberatore, H. K., Cuthbertson, A., Wendel, F., Luetke Eversloh, C., Ternes, T. A., Machek, E., Duirk, S. E., Wagner, E., and Plewa, M. J. Using High Resolution Mass Spectrometry to Uncover New, Emerging Iodinated and Nitrogen-Containing Disinfection By-products. The Pittsburgh Conference (Pittcon). Atlanta, GA. 2016.
126. Richardson, S. D., J. D. Byer, E. J. Daiber, S. A. Ravuri, J. E. Binkley, H. K. Liberatore, and C. M. Joseph. Targeted Discovery of Disinfection By-Products in Swimming Pools and Spas. The Pittsburgh Conference (Pittcon), Atlanta, GA. 2016.

127. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, University of Texas-El Paso. 2016.
128. Richardson, S. D. Formation of Drinking Water Disinfection By-Products. Safe Drinking Water Mini-Symposium, University of Tennessee-Martin. Martin, TN. 2016.
129. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, Georgetown University. 2016.
130. Richardson, S. D. Safe and Sustainable Drinking Water: Identifying and Removing Disinfection By-Products. Rotary Club Meeting. Martin, TN. 2016.
131. Richardson, S. D. My Story in Science. The Story Collider, San Diego Festival of Science & Technology. 2016.
132. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. **Keynote address** at the Restek Annual Research and Innovation Meeting. State College, PA. 2016.
133. Richardson, S. D. How Can We Make Drinking Water Safer and Sustainable? University of South Carolina Sustainability Quarterly Meeting. Columbia, SC. 2016.
134. Richardson, S. D., C. Postigo, C. M. Joseph, F. Wendel, C. L. Eversloh, T. A. Ternes, E. Machek, S. E. Duirk, E. Wagner, and M. J. Plewa. High Resolution and Tandem Mass Spectrometry Uncovers Chlorination Reaction Pathways for Transformation of Medical Imaging Compounds in Drinking Water Treatment. The 2015 International Chemical Congress of Pacific Basin Societies (PacifiChem). Honolulu, HI. 2015.
135. Richardson, S. D. Emerging Iodinated Disinfection By-Products in Drinking Water. **Plenary address** at the Beijing Conference and Exhibition on Instrumental Analysis (BCEIA). Beijing, China. 2015.
136. Richardson, S. D. Emerging DBPs: From Wastewater-Impacted Waters to Desalination to Swimming Pools. Gordon Research Conference on Drinking Water DBPs. South Hadley, MA. 2015.
137. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. **Keynote address** at the 6th International Contaminated Site Remediation Conference (“CleanUp 2015”). Melbourne, Australia. 2015.
138. Richardson, S. D. Emerging Environmental Contaminants: Priority Contaminants and Their Potential Impact on Humans and the Environment. Seminar, Hong Kong Baptist University. 2015.
139. Richardson, S. D. Emerging DBPs: From Wastewater-Impacted Waters to Desalination to Swimming Pools. Seminar, National Water Quality Laboratory. Beijing, China. 2015.
140. Richardson, S. D. Environmental Chemistry: Emerging Contaminants and Current Issues. **Plenary address** at the EnviroAnalysis Conference. Banff, Canada. 2015.
141. Richardson, S. D. Emerging Drinking Water Disinfection By-Products and New Health Issues. **Keynote address** at the EnviroAnalysis Conference. Banff, Canada. 2015.

142. Richardson, S. D. Emerging Disinfection By-Products: An Unintended Consequence of Killing Harmful Pathogens in Drinking Water. George H. W. Bush 6<sup>th</sup> China-U.S. Relations Conference. Houston, TX. 2015.
143. Richardson, S. D. Environmental Water Analysis: Modern Tools for Emerging Contaminants and Complex Samples. The Pittsburgh Conference (PittCon). New Orleans, LA. 2015.
144. Richardson, S. D. A New Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, Chinese Academy of Sciences, Beijing, China. 2015.
145. Richardson, S. D. A New Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, Tsinghua University, Beijing, China. 2015.
146. Richardson, S. D. A New Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, Hong Kong University of Science & Technology. 2015.
147. Richardson, S. D. A New Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, Fudan University, Shanghai, China. 2015.
148. Richardson, S. D. A New Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, Chinese Academy of Sciences, Beijing, China. 2015.
149. Richardson, S. D. A New Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, Central South University, Changsha, China. 2015.
150. Richardson, S. D. The Next Generation of DBPs: Formation, Toxicity, and New Links with Epidemiology. Seminar, Virginia Tech. 2015.
151. Richardson, S. D. The Next Generation of DBPs: Formation, Toxicity, and New Links with Epidemiology. Seminar, Chesapeake Biological Laboratory, University of Maryland. 2015.
152. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, North Carolina State University. 2015.
153. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, Baylor University. 2015.
154. Richardson, S. D. Upcoming Disinfection By-Products. South Carolina Environmental Conference. Myrtle Beach, SC. 2015.
155. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products. Seminar, South Carolina Department of Health and Environmental Control (DHEC). Columbia, SC. March, 2015.

156. Richardson, S. D. DBPs and Emerging Contaminants: What's New and What Might Be Regulated in the Future. South Carolina Department of Health and Environmental Control (DHEC) Surface Waters Systems Meeting. Columbia, SC. December, 2015.
157. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. **Keynote address** at the 'DBP 2014: Disinfection By-Products in Drinking Water' Conference. Muelheim, Germany. 2014.
158. Richardson, S. D., M. J. Plewa, and E. D. Wagner. Charting a New Path to Resolve the Adverse Health Effects of DBPs. **Keynote address** at the 'DBP 2014: Disinfection By-Products in Drinking Water' Conference. Muelheim, Germany. 2014.
159. Richardson, S. D. Emerging Contaminants: From Discovery to Regulation in the United States. Conference on Water Quality and Emerging Contaminants: Comparison of Data in Europe and the U.S. Milan, Italy. 2014.
160. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, Helmholtz Zentrum Institute, Munich, Germany. 2014.
161. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links with Human Epidemiology. Seminar, University of Muenster, Muenster, Germany. 2014.
162. Richardson, S. D., W. Elshorbagy, and R. Harren. Toxic Brominated and Iodinated Disinfection By-Products: A Concern for New Desalination Technologies? 97<sup>th</sup> Canadian Chemistry Conference. Vancouver, Canada. 2014.
163. Richardson, S. D. Environmental Mass Spectrometry: Emerging Contaminants and Current Issues. 97<sup>th</sup> Canadian Chemistry Conference. Vancouver, Canada. 2014.
164. Richardson, S. D. Formation of DBPs: State of the Science. **Keynote address** at the 248th American Chemical Society National Meeting, San Francisco, CA. 2014.
165. Richardson, S. D. To Swim or Not to Swim...That is the Question: Using High Resolution MS to Uncover Unknown Chemicals and Disinfection By-Products in Swimming Pools and Hot Tubs. The 62<sup>nd</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Baltimore, MD. 2014.
166. Richardson, S. D. LC/MS/MS in Environmental Monitoring: An Overview. National Environmental Monitoring Conference, Washington, D.C. 2014.
167. Richardson, S. D. Water Analysis: Emerging Environmental Contaminants and Current Issues. LC-GC Webinar. 2014.
168. Richardson, S. D. Emerging Contaminants in Drinking Water: Is There a Concern? **Keynote address** at the 5th International Contaminated Site Remediation Conference ("CleanUp 2013"). Melbourne, Australia. 2013.
169. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and New Links With Human Epidemiology. **Keynote address** at the International Conference on Chemistry and the Environment. Barcelona, Spain. 2013.



170. Richardson, S. D. Drinking Water Chemicals: Discoveries and Challenges. **Davis-Swindin Memorial Lecture**. Loughborough University, Department of Chemical Engineering, United Kingdom. 2013.
171. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, and Toxicity. Seminar, University of Georgia, Department of Chemistry. 2013.
172. Richardson, S. D. Emerging Contaminants in Water and Their Transformation in Drinking Water and Wastewater Treatment. **Keynote address** at the 3<sup>rd</sup> International Sede Boqer Conference on Water Technologies 2012: Advanced Technologies in Water Management. Ben Gurion University of the Negev, Sede Boqer, Israel. 2012.
173. Richardson, S. D. Disinfection By-Products: From the Pioneering Work of Dr. Rav-Acha Until Today. Symposium on Quality of Drinking Water and Human Health. Israel Ministry of Health, Tel-Aviv, Israel. 2012.
174. Richardson, S. D. Safe Drinking Water? Effect of Wastewater Inputs and Source Water Impairment and Implications for Water Reuse. Workshop on Wastewater Reuse Applications and Contaminants of Emerging Concern. Pissouri-Limassol, Cyprus. 2012.
175. Richardson, S. D. Micropollutants, Metabolites, and Their Mixtures in Drinking Water and Its Sources. **Keynote address** at the NORMAN Workshop on Micropollutants, Metabolites, and Mixtures in Drinking Water and Its Sources. KWR Watercycle Research Institute, Nieuwegein, the Netherlands. 2012.
176. Richardson, S. D. Future in Research on DBPs. Closing **Keynote address** at the Gordon Research Conference on Drinking Water Disinfection By-Products. South Hadley, MA. 2012.
177. Richardson, S. D. New and Emerging Chemicals: A Source of Exposure from Food and Agriculture? AOAC Conference. Las Vegas, NV. 2012. (Invited)
178. Richardson, S. D. Emerging Contaminants. Workshop on 'Challenges in Water Safety'. The 60<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Vancouver, Canada. 2012.
179. Richardson, S. D. Emerging Environmental Contaminants. U.S. EPA Laboratory Technology Information Group (LTIG) Conference. Athens, GA. 2012.
180. Richardson, S. D. Emerging Environmental Contaminants: Current Issues. Annual Banquet, Northeast Georgia Section of the American Chemical Society. Athens, GA. 2012.
181. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and Human Health Issues. **Keynote address** at the Micropol & Ecohazard Conference. Sydney, Australia. 2011.
182. Richardson, S. D. Emerging Environmental Contaminants: Current Issues. **Keynote address** at the 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.
183. Richardson, S. D. The Next Generation of Drinking Water Disinfection Byproducts: Occurrence,

- Formation, and Toxicity. **Keynote address** at the Fourth International Water Association (IWA) Specialty Conference on Natural Organic Matter: 'From Source to Tap and Beyond'. Costa Mesa, CA. 2011.
184. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and Human Health Issues. Seminar, Curtin University, Water Quality Research Centre, Perth, Australia. 2011.
  185. Richardson, S. D. Micropollutants and Emerging Contaminants: A U.S. Perspective. International Water Association (IWA) Workshop on A Strategy for Micropollutants and Emerging Contaminants from an International Perspective (held in conjunction with the Micropol & Ecohazard Conference). Sydney, Australia. 2011.
  186. Richardson, S. D. Drinking Water Disinfection By-Products and Other Emerging Environmental Contaminants: Current Issues. Seminar, Zhejiang University, Hangzhou, China. 2011.
  187. Richardson, S. D. Emerging Environmental Contaminants: Linking Chemistry and Toxicology. 2<sup>nd</sup> Workshop on Emerging Environmental Contaminants in Water. Campinas, Brazil. 2011.
  188. Richardson, S. D. Emerging Environmental and Water Contaminants: Current Issues. Seminar, United Arab Emirates University, Al Ain, UAE. 2011.
  189. Richardson, S. D. Emerging Contaminants. National Academy of Sciences meeting on Emerging Contaminants: Opportunities for a National Research Council Assessment. Washington, D.C. 2011.
  190. Richardson, S. D. Emerging Environmental Contaminants: Current Issues and Continuing Role of LC/MS/MS. 7th Annual LC/MS/MS Workshop on Environmental Applications and Food Safety. Buffalo, NY. 2011.
  191. Richardson, S. D. Pharmaceuticals in the Environment: State of the Science and Current Issues. **Keynote Address** at the Pittsburgh Conference (PittCon). Atlanta, GA. 2011.
  192. Richardson, S. D. Novel Mass Spectrometry Methods for Uncovering New Drinking Water Disinfection By-Products. Pittsburgh Conference (PittCon). Atlanta, GA. 2011.
  193. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, and Toxicity. Seminar, Johns Hopkins University. 2011.
  194. Richardson, S. D. Drinking Water Disinfection By-Products and Other Emerging Environmental Contaminants: Current Issues. Seminar, University of North Carolina. 2011.
  195. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and Human Health Issues. Seminar, University of Illinois. 2011.
  196. Richardson, S. D. Emerging Environmental Contaminants: What's New. Seminar, University of North Carolina-Wilmington. 2011.
  197. Richardson, S. D. Emerging Contaminants in Drinking Water and the Environment: The Key Role of Mass Spectrometry in Human and Ecological Health. Seminar, Triangle Area Mass Spectrometry Discussion Group Meeting, RTP, NC. 2011.

198. Richardson, S. D. Emerging Contaminants in Drinking Water and the Environment: The Key Role of Mass Spectrometry in Human and Ecological Health. Seminar, Delaware Valley Mass Spectrometry Discussion Group Meeting. Villanova University, Villanova, PA. 2011.
199. Richardson, S. D. Emerging Contaminants in Drinking Water and the Environment: The Key Role of Mass Spectrometry in Human and Ecological Health. Seminar, DuPont, Wilmington, DE. 2011.
200. Richardson, S. D. Linking Mass Spectrometry with Toxicology for Emerging Water Contaminants. **Keynote Address** at the 58th ASMS Conference on Mass Spectrometry and Allied Topics, Salt Lake City, UT. 2010.
201. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products: Occurrence, Formation, Toxicity, and Human Health Issues. **Keynote address** at TransCon2010—the Conference on Environmental Transformation of Organic Compounds: Towards a Joint Perspective on the Importance of Transformation Products as Environmental Contaminants. Monte Verita, Switzerland. 2010.
202. Richardson, S. D. Linking Chemical Analysis with Toxicology for Emerging Environmental Contaminants. 3rd International Symposium on Genotoxicity in Aquatic Systems: Causes, Effects and Future Needs. Freiburg, Germany. 2010.
203. Richardson, S. D. Emerging Environmental Contaminants: What's New. German-French Symposium on the Cycle of Evolution of Micropollutants in Rivers. Nancy, France. 2010.
204. Richardson, S. D., S. E. Duirk, C. Lindell, C. C. Cornelison, T. A. Ternes, J. L. Kormos, M. J. Plewa, E. Smith, and W. A. Mitch. Formation of Highly Toxic Iodo-DBPs in Drinking Water. The 2010 International Chemical Congress of Pacific Basin Societies (PacifiChem). Honolulu, HI. 2010.
205. Richardson, S. D. Emerging Environmental Contaminants and Solid Phase Microextraction: Janusz Pawliszyn's Legacy in the Environmental Area. The 239th American Chemical Society National Meeting. San Francisco, CA. (Special award symposium honoring Janusz Pawliszyn). 2010.
206. Richardson S. D. The Next Generation of Drinking Water Disinfection By-Products. 7<sup>th</sup> National Monitoring Conference. Denver, CO. 2010.
207. Richardson, S. D. Chemical By-Products: Potential Health Effects from Drinking Water and Swimming Pools. Seminar, University of Georgia, Department of Pharmacy. 2010.
208. Richardson, S. D. Emerging Drinking Water Disinfection By-Products. Seminar, University of Cincinnati. 2010.
209. Richardson, S. D. Emerging Environmental Contaminants: What's New. Seminar, Lawrence Livermore National Laboratory. Livermore, CA. 2010.
210. Richardson, S. D. Emerging Environmental Contaminants: What's New. Earth Day Lecture, Piedmont College. 2010.
211. Richardson, S. D. Emerging Contaminants: What's New. Seminar, Department of Chemistry, University of Maine. 2010.

212. Richardson, S. D. Environmental Mass Spectrometry: Emerging Environmental Contaminants and Current Issues. **Keynote address** at the 4<sup>th</sup> Scientific Meeting of the Spanish Society of Mass Spectrometry. Castellon, Spain. 2009.
213. Richardson, S. D. Emerging Environmental Contaminants. Seminar, University of Nancy, Nancy, France. 2009.
214. Richardson, S. D. Emerging Contaminants and Current Issues. **Keynote address** at the International Conference on Xenobiotics in the Urban Water Cycle (XENOWAC), Paphos, Cyprus. 2009.
215. Richardson, S. D. Emerging Disinfection By-Products and Other Emerging Environmental Contaminants in Water and Wastewater: What's New. Seminar, University of Cyprus. Larnaca, Cyprus. 2009.
216. Richardson S. D. Comprehensive Identification of Chemical Disinfection By-Products from Chlorinated and Brominated Swimming Pools. International Symposium on Pool Water Chemistry and Health. Dessau, Germany. 2009.
217. Richardson, S. D. Roadmap for Interdisciplinary Research on Drinking Water Disinfection By-Products. **Keynote address** at the Gordon Research Conference on Drinking Water Disinfection By-Products. South Hadley, MA. 2009.
218. Richardson, S. D. Emerging Environmental Contaminants: What's New. **Keynote Address** at the 57<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics, Philadelphia, PA. 2009.
219. Richardson, S. D. Bill Glaze: A Legend, a Teacher, and a Gentleman. The 238<sup>th</sup> American Chemical Society National Meeting. Washington, D.C. 2009. (Special symposium honoring Bill Glaze)
220. Richardson. S. D. Emerging Environmental Contaminants: What's New. **Keynote address** at the 19<sup>th</sup> Quality Assurance Conference, U.S. EPA Region 6, Dallas, TX. 2009.
221. Richardson, S. D. Emerging Disinfection By-Products and the Latest Research from ORD. Seminar, U.S. EPA Region 9, San Francisco, CA. 2009.
222. Richardson, S. D. The Next Generation of Disinfection By-Products. Seminar, Department of Chemistry, Loyola University. 2009.
223. Richardson, S. D. The Next Generation of Disinfection By-Products. Seminar, Department of Chemical Engineering, Missouri University of Science & Technology. 2009.
224. Richardson, S. D. The Next Generation of Disinfection By-Products. **Plenary address** at the International Symposium on Chromatography, Muenster, Germany. 2008.
225. Richardson, S. D. Water, Water Everywhere, But is it Safe to Drink? **Award Address** (Recipient of ACS Award for Creative Advances in Environmental Science & Technology) at the 235<sup>th</sup> American Chemical Society National Meeting. New Orleans, LA. 2008.
226. Richardson, S. D. Management of Water Resources: A Perspective from the United States. **Keynote address** at the Workshop on 'Water Framework Directive in Relation to Priority and Emerging Pollutants'. Koblenz, Germany. 2008.

227. Richardson, S. D. Environmental Contaminants That Degrade in the Environment: Do They Really Disappear? **Keynote Address** at the 56th ASMS Conference on Mass Spectrometry and Allied Topics. Denver, CO. 2008.
228. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. 2nd International Symposium on Genotoxicity in Aquatic Systems: Causes, Effects, and Regulatory Needs. Dessau, Germany. 2008.
229. Richardson, S. D. Formation of Emerging and High Molecular Weight DBPs from NOM. 4th Late Summer Workshop on 'Natural Organic Matter in Natural and Technical Processes'. Lake Constance, Germany. 2008.
230. Richardson, S. D. Formation and Occurrence of Disinfection By-Products. Environmental Mutagen Society 38th Annual Meeting. Rio Mar, Puerto Rico. 2008.
231. Richardson, S. D. Chlorinated vs. Chloraminated Drinking Water: Toxicity-Based Identification of DBPs Using ESI-MS and ESI-MS/MS. Canadian Society of Chemistry Conference. Edmonton, Canada. 2008.
232. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. Symposium on Analytical and Environmental Toxicology. University of Alberta, Edmonton, Canada. 2008.
233. Richardson, S. D. The Next Generation of Disinfection By-Products. Seminar, Department of Chemical Engineering, Yale University. 2008.
234. Richardson, S. D. What's in my Drinking Water: The Present Situation and Emerging Risks. Earth Day Lecture, University of Georgia. 2008.
235. Richardson, S. D. Emerging Disinfection By-Products and Other Emerging Environmental Contaminants: What's New. Seminar at the Alberta Research Council, Edmonton, Canada. 2007.
236. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. Seminar at Health Canada, Ottawa, Canada. 2007.
237. Richardson, S. D., F. G. Crumley, F. Fasano, M. J. Plewa, E. D. Wagner, T. H. Mize, P. Angel, R. Orlando, L. N. Williamson, and M. G. Bartlett. Chlorinated vs. Chloraminated Drinking Water: Toxicity-Based Identification of Disinfection By-Products Using ESI-MS and ESI-MS/MS. The 35th Colloquium Spectroscopicum Internationale, Xiamen, China. 2007.
238. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. Seminar at the Chinese Academy of Sciences, Beijing, China. 2007.
239. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. Seminar at Peking University, Beijing, China. 2007.
240. Richardson, S. D. The Next Generation of Disinfection By-Products: Uncovering High Molecular Weight DBPs and Other Emerging DBPs. Seminar at the Hong Kong University of Science & Technology (HKUST), Hong Kong. 2007.
241. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. Seminar at the Hong Kong University of Science & Technology (HKUST) (for members from the Hong Kong

- Environmental Protection Department and the Hong Kong Treatment Works), Hong Kong. 2007.
242. Richardson, S. D. The Next Generation of Disinfection By-Products: Uncovering High Molecular Weight DBPs and Other Emerging DBPs. Seminar at EAWAG (Swiss Federal Institute of Aquatic Science & Technology), Dübendorf, Switzerland. 2007.
  243. The Next Generation of Drinking Water Disinfection By-Products and Health Issues. Seminar at Agroscope (Swiss Federal Research Station), Wädenswil, Switzerland. 2007.
  244. Emerging Environmental Contaminants and Current Issues. Seminar at the German Federal Environment Agency, Berlin, Germany. 2007.
  245. The Next Generation of Drinking Water Disinfection By-Products: Uncovering Emerging DBPs and Health Issues. Seminar at the University of Torino and Anti-Doping Centre, Torino, Italy. 2007.
  246. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. **Plenary address** at the EnviroAnalysis 2007 Conference, Wellington, New Zealand. 2007.
  247. Richardson, S. D. Emerging DBPs and Current Drinking Water Issues. Seminar at Watercare Services, Auckland, New Zealand. 2007.
  248. Richardson, S. D. Emerging DBPs and Current Issues. Seminar at Hill Laboratories, Hamilton, New Zealand. 2007.
  249. Richardson, S. D. Emerging DBPs and Current Issues. Seminar at New Zealand Institute of Environmental Science & Research, Wellington, New Zealand. 2007.
  250. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. **Keynote Address** at a Workshop on LC/MS & LC/MS/MS: Applications in Environmental Analysis. Guelph, Canada. 2007.
  251. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. Seminar at the Ontario Ministry of the Environment. Toronto, Canada. 2007.
  252. Richardson, S. D. Emerging Environmental Contaminants: Achievements and Challenges with Mass Spectrometry. The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy. Chicago, IL. 2007.
  253. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. Seminar at the Toronto Area Mass Spectrometry Discussion Group. Toronto, Canada. 2007.
  254. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products and Health Issues. Seminar, Department of Chemistry and Environmental Science, New Jersey Institute of Science & Technology. 2007.
  255. Richardson, S. D. **Convocation Address**, Cape Breton University, Sydney, Nova Scotia, Canada. 2006.
  256. Richardson, S. D., J. J. Ellington, F. Gene Crumley, J. J. Evans, B. C. Blount, L. K. Silva, F. L. Cardinali, M. J. Plewa, E. D. Wagner. Occurrence of Iodo-Acid and Iodo-THM Disinfection By-Products in Drinking Water. The 34th International Symposium on Environmental Analytical Chemistry. Hamburg, Germany. 2006.

257. Richardson, S. D. Emerging Contaminants in Water and Current Health Issues. Seminar at the Federal Institute of Hydrology, Koblenz, Germany. 2006.
258. Richardson, S. D. Emerging Contaminants in the Environment. **Plenary address** at the 10th International Symposium on Biological and Environmental Reference Materials. Charleston, SC. 2006.
259. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. Seminar at the Alberta Research Council, Vegreville, Alberta, Canada. 2006.
260. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. Seminar at Alberta Environment, Edmonton, Alberta, Canada. 2006.
261. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products and Health Issues. Seminar at the University of Alberta, Edmonton, Alberta, Canada. 2006.
262. Richardson, S. D. Emerging Environmental Contaminants and Current Issues. **Keynote Address** at the 54th ASMS Conference on Mass Spectrometry and Allied Topics. Seattle, WA. 2006.
263. Richardson, S. D. Overview of Emerging Contaminants of Concern in Drinking Water. National Water Program Conference. San Antonio, TX. 2006.
264. Richardson, S. D., and C. Rav-Acha. Chlorine Dioxide Chemistry, Reactions, and Disinfection By-Products. Workshop on 'Chlorine Dioxide in Drinking Water Treatment', American Water Works Association Water Quality Technology Conference. Denver, CO. 2006.
265. Richardson, S. D. Occurrence of Iodo-Acid and Iodo-THM DBPs in Chloraminated Drinking Waters in the United States. American Water Works Association Inorganics Workshop. Austin, TX. 2006.
266. Plewa, M. J., E. D. Wagner, and S. D. Richardson. Mammalian Cell Toxicity of Emerging Drinking Water Disinfection By-Products. Gordon Research Conference (Drinking Water Disinfection By-Products). South Hadley, MA. 2006.
267. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products and Health Issues. Seminar, Department of Chemistry, University of Buffalo (SUNY). 2006.
268. Richardson, S. D. Emerging Drinking Water Disinfection By-Products and Health Issues. Seminar, Department of Environmental Science & Engineering, University of Illinois. 2006.
269. Richardson, S. D. Emerging Drinking Water Disinfection By-Products and New Health Issues. Seminar, Environmental Symposium, Armstrong Atlantic State University, Savannah, GA. 2006.
270. Richardson, S. D. Toxicity-Based Identification of Drinking Water Disinfection By-Products Using LC/MS and LC/MS/MS. **Keynote Address** at the 1st International Workshop on 'Liquid Chromatography-Tandem Mass Spectrometry for Screening and Trace Level Quantitation in Environmental and Food Samples'. Barcelona, Spain. 2005.
271. Richardson, S. D. Emerging Drinking Water Disinfection By-Products and New Health Issues. 1st International Conference on Environmental Exposure & Health. Atlanta, GA. 2005.

272. Richardson, S. D. Iodo-Acids and Other Emerging DBPs. American Water Works Association Annual Conference. San Francisco, CA. 2005.
273. Choi, J. and S. D. Richardson. Formation of Halonitromethanes in Drinking Water. International Workshop on 'Optimizing the Design and Interpretation of Epidemiologic Studies to Consider Alternative Disinfectants of Drinking Water', Raleigh, NC. 2005.
274. Richardson, S. D. Emerging Drinking Water Disinfection By-Products and New Health Issues. Seminar, U. S. EPA Region 9 symposium on 'Byproducts of Drinking Water Disinfection: Hot Results from the Cutting Edge'. San Francisco, CA. 2005.
275. Richardson, S. D. Emerging DBPs and Other Contaminants in Drinking Water. Independent Testing Laboratory Association (ITLA) meeting, Boston, MA. 2005.
276. Richardson, S. D. Emerging Drinking Water Disinfection By-Products and New Health Issues. Seminar, Water Campus Seminar Program. University of Illinois (and webcast to other U.S. universities participating in program). 2005.
277. Richardson, S. D. Emerging Drinking Water Disinfection By-Products and New Health Issues. Gordon Research Conference (Environmental Sciences: Water). Plymouth, NH. 2004.
278. Richardson, S. D. Emerging Contaminants in Drinking Water. **Plenary address** at the joint EnviroAnalysis Conference (International Conference on Chemical Measurement and Monitoring of the Environment) and the International Symposium on Environmental Analytical Chemistry. Toronto, Canada. 2004.
279. Richardson, S. D. U.S. Nationwide Drinking Water Disinfection By-Product Occurrence Study and New Health Effects Research. EnviroAnalysis Conference. Toronto, Canada. 2004.
280. Richardson, S. D. Emerging Disinfection By-Products and New Health Issues. Toronto Area Mass Spectrometry Discussion Group. Toronto, Canada. 2004.
281. Richardson, S. D., M. J. Plewa, and R. N. Winn. Bioassay-Directed Chemical Analysis for Identifying Drinking Water Disinfection By-Products of Health Concern. AOAC International Conference, St. Louis, MO. 2004.
282. Richardson, S. D. Emerging Disinfection By-Products of Toxicological Interest: Results of a Nationwide Occurrence Study. Seminar, Department of Chemistry, Florida State University. 2004.
283. Richardson, S. D. Emerging Drinking Water Disinfection By-Products from Alternative Disinfectants and New Toxicity Studies. Virginia American Water Works Association Conference. 2004.
284. Richardson, S. D. The Next Generation of Drinking Water Disinfection By-Products and Health Issues. Seminar, Department of Environmental Engineering & Science, Clemson University. 2004.
285. Richardson, S. D. U.S. Nationwide Drinking Water Disinfection By-Product Occurrence Study and New Health Effects Research. Seminar, Department of Civil and Environmental Engineering, University of Tennessee. 2004.
286. Richardson, S. D. Emerging Drinking Water Disinfection By-Products and New Health Issues. Seminar, Department of Civil Engineering, Auburn University. 2004.



287. Richardson, S. D. Emerging DBPs of Health Concern. Science Forum on Current Science on Disinfection By-Products, CIIT Centers for Health Research, RTP, NC. 2004.
288. Richardson, S. D. Disinfection By-Products of Health Concern in Drinking Water: Results of a U.S. Nationwide Occurrence Study and Preliminary Health Effects Data. International Workshop on 'Pool Water Treatment, Disinfection Byproduct Formation, and Health Effects'. Karlsruhe, Germany. 2003.
289. Richardson, S. D. Emerging Contaminants in Drinking Water. **Keynote Address** at the International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2003.
290. Richardson, S. D. How I Came Into Mass Spectrometry at the U.S. EPA. Symposium entitled, 'IMSC - The Next Generation - Career Pathways in Mass Spectrometry'. The 16th International Mass Spectrometry Conference. Edinburgh, Scotland. 2003.
291. Richardson, S. D., A. D. Thruston, Jr., S. W. Krasner, H. S. Weinberg, R. Chinn, M. J. Scilimenti, S. Pastor, and G. D. Onstad. Disinfection By-Products of Health Concern in Drinking Water: Results of a Nationwide Occurrence Study. The 51st ASMS Conference on Mass Spectrometry and Allied Topics. Montreal, Canada. 2003.
292. Simmons, S. D., L. K. Teuschler, G. E. Rice, R. Hertzberg, T. F. Speth, C. Gennings, and S. D. Richardson. Methods and Techniques for Dealing With the Unidentified Fraction of Complex Mixtures. The Toxicology and Risk Assessment Conference. Fairborn, OH. 2003.
293. Richardson, S. D. Emerging Disinfection By-Products of Toxicological Interest: Results of a Nationwide Occurrence Study. Seminar, Oregon Graduate Institute (OGI) School of Science & Engineering, Oregon Health Sciences University, Beaverton, OR. 2003.
294. Richardson, S. D., A. D. Thruston, Jr., S. W. Krasner, R. Chinn, M. J. Scilimenti, S. Pastor, H. S. Weinberg, and G. Onstad. Disinfection By-Products of Health Concern in Drinking Water: Results of a Nationwide Occurrence Study. The New Health Policy Issues Meeting of the Chlorine Chemistry Council. Washington, D. C. 2003.
295. Simmons, J. E., E. S. Hunter, III, L. K. Teuschler, G. Rice, T. F. Speth, R. J. Miltner, K. M. Schenck, and S. D. Richardson. Office of Research and Development's Four Lab Study: Toxicological and Chemical Evaluation of Complex Mixtures of Disinfection By-Products for Alternative Disinfection Treatment Scenarios. The New Health Policy Issues Meeting of the Chlorine Chemistry Council. Washington, D. C. 2003.
296. Richardson, S. D. Water Water Everywhere But What Do We Drink? Seminar, San Diego Mass Spectrometry Discussion Group, Scripps Research Institute, San Diego, CA. 2003.
297. Richardson, S. D., A. D. Thruston, Jr., S. W. Krasner, and H. S. Weinberg. Emerging Disinfection By-Products of Toxicological Interest: Results of a Nationwide Occurrence Study. U.S. EPA National Health and Environmental Effects Research Laboratory's Scientist-to-Scientist Meeting, RTP, NC. 2003.
298. Richardson, S. D., A. D. Thruston, Jr., S. W. Krasner, and H. S. Weinberg. Results of a Nationwide DBP Occurrence Study: Identification of New DBPs of Potential Health Concern. International Society of Exposure Analysis (ISEA)-International Society for Environmental Epidemiology (ISEE) Conference. Vancouver, Canada. 2002.

299. Krasner, S., R. Chinn, S. Pastor, M. Scilimenti, H. Weinberg, G. Onstad, S. Richardson, and A. Thruston, Jr. The Occurrence of Disinfection By-Products of Health Concern in Drinking Water. International Society of Exposure Analysis (ISEA)-International Society for Environmental Epidemiology (ISEE) Conference. Vancouver, Canada. 2002.
300. Plewa, M. J., E. D. Wagner, and S. D. Richardson. Quantitative Comparative Mammalian Cell Cytotoxicity and Genomic Genotoxicity of Drinking Water Disinfection By-Products. International Society of Exposure Analysis (ISEA)-International Society for Environmental Epidemiology (ISEE) Conference. Vancouver, Canada. 2002.
301. Richardson, S. D. Establishing Criteria for Unknown Compound Identification. The American Chemical Society Conference, 'Principles of Environmental Sampling and Analysis--Two Decades Later' Symposium. Boston, MA. 2002.
302. Simmons, J. E., L. K. Teuschler, C. Gennings, T. F. Speth, S. D. Richardson, R. J. Miltner, M. G. Narotsky, and G. Rice. Component-Based and Whole-Mixtures Assessments in Addressing the Unidentified Fraction of Complex Mixtures. International Conference on Chemical Mixtures. Atlanta, GA. 2002.
303. Simmons, J. E., S. D. Richardson, K. M. Schenck, T. F. Speth, R. J. Miltner, and A. D. Thruston, Jr. Chemical Analysis of Reverse Osmosis Membrane and XAD Resin Adsorption Concentrates of Water Disinfected by Chlorination or Ozonation/Chlorination Processes. Environmental Mutagen Society Annual Conference. Anchorage, AK. 2002.
304. Richardson, S. D. Career Opportunities at the U.S. EPA. The American Chemical Society Conference, 'Career Opportunities in Analytical Chemistry: Focus on the Environment' Symposium. Orlando, FL. 2002.
305. Price, P. C., P. J. Gale, J. A. Loo, D. N. Heller, S. D. Richardson, and M. W. Duncan. ASMS Guidelines for Exact Mass Measurement and Elemental Composition--New Perspectives. The 50th ASMS Conference on Mass Spectrometry and Allied Topics. Orlando, FL. 2002.
306. Richardson, S. D. Disinfection By-Products: The Next Generation. Emerging Issues in Water Treatment One-Day Seminar, sponsored by the Michigan Section of the American Water Works Association, Lansing, MI. 2002.
307. Richardson, S. D. Do You Know What's in Your Drinking Water? Identifying the Chemicals and Microorganisms You Can't See. Laboratory and Technical Information Conference (sponsored by U.S. EPA, Region IV), Athens, GA. 2002.
308. Richardson, S. D. Extraction Technologies Used with GC/MS and LC/MS for Identifying Drinking Water Disinfection By-Products. **Plenary Address** at the Extech International Symposium on 'Advances in Extraction Technologies'. Barcelona, Spain. 2001. (Plenary presentation was prepared, but travel was canceled by EPA due to September 11, 2001 events).
309. Richardson, S. D. Emerging Contaminants: The Need for Elegant Analytical Chemistry Solutions for the New Environmental Pollutants of Concern. **Keynote Address** at the American Chemical Society Conference symposium, 'Elegant Analytical Chemistry Applied to Environmental Problems'. Chicago, IL. 2001.

310. Richardson, S. D. Emerging Contaminants: What are the Current 'Hot' Environmental Pollutants and What is Next? **Keynote Address** at the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Annual Conference symposium, 'New Challenges for Membrane Introduction Mass Spectrometry'. Detroit, MI. 2001.
311. Richardson, S. D. Drinking Water Disinfection By-Products: The Analytical Challenge. **Keynote Address** at the 17th Asilomar Conference on Mass Spectrometry, 'Real World Challenges and New Developments in Environmental Mass Spectrometric Measurements'. Pacific Grove, CA. 2001.
312. Richardson, S. D. Chlorine Dioxide DBPs: Overview and Results of Recent Work. International Symposium on Chlorine Dioxide, 4th International Symposium. Las Vegas, NV. 2001.
313. Richardson, S. D. The Role of GC/MS and LC/MS in the Discovery of Drinking Water Disinfection By-Products. The American Chemical Society Conference, 'Themes in Potable Water Chemistry' Symposium. Chicago, IL. 2001.
314. Simmons, J. E., S. D. Richardson, T. Speth, R. J. Miltner, G. Rice, K. Schenck, S. Krasner, H. Weinberg, and L. K. Teuschler. Integrated Technology-Based Toxicology Studies on Drinking Water Disinfection By-Products. Workshop on 'Application of Technology to Chemical Mixture Research'. Colorado State University. 2001.
315. Richardson, S. D., and U. Karst. A New Tailor-Made Derivatizing Agent for Identifying Polar Carbonyl DBPs in Drinking Water. The American Chemical Society Conference. San Diego, CA. 2001.
316. Richardson, S. D. Do You Know What's in Your Drinking Water? Identifying the Chemicals and Microorganisms You Can't See. Seminar, National Institute of Environmental Health Sciences (NIEHS), RTP, NC. 2001.
317. Richardson, S. D. Do You Know What's in Your Drinking Water? Identifying the Chemicals and Microorganisms You Can't See. Seminar, East Tennessee Mass Spectrometry Discussion Group (includes researchers from Oak Ridge National Laboratory, the University of Tennessee, and Eastman Chemical), Knoxville, TN. 2001.
318. Richardson, S. D. Overview of DBPs Identified. Workshop on 'Risk Assessment of Disinfection Byproducts (DBPs): Considering Unidentified DBPs.' Sponsored by the U.S. EPA's National Center for Environmental Assessment and the U.S. EPA's National Exposure Research Laboratory. Cincinnati, OH. 2000.
319. Richardson, S. D. Drinking Water DBPs: What Do We Know & What are We Missing? International Workshop on 'Exposure Assessment for Disinfection By-Products in Epidemiologic Studies.' Ottawa, Canada. 2000.
320. Richardson, S. D. Techniques for Analyzing Complex Mixtures of Drinking Water DBPs. Symposium on 'Techniques for Analyzing Complex Mixtures and Interactions in Aquatic Systems', Analytica 2000 Conference. Munich, Germany. 2000.
321. Richardson, S. D., A. D. Thruston, Jr., C. Rav-Acha, and V. Glezer. Identification of Chlorine Dioxide and Chloramine Disinfection By-Products. International Society of Exposure Analysis Annual Conference. Monterey, CA. 2000.

322. Weinberg, W., S. Krasner, S. D. Richardson, G. Onstad, and K. Jayaraj. Methods for the Identification of New Disinfection By-Products in Drinking Water. International Society of Exposure Analysis Annual Conference. Monterey, CA. 2000.
323. Richardson, S. D. Do You Know What's in Your Drinking Water? Identifying the Chemicals and Microorganisms You Can't See. Seminar, Chemistry Department, Louisiana State University. 2000.
324. Richardson, S. D. Do You Know What's in Your Drinking Water? Identifying the Chemicals and Microorganisms You Can't See. Seminar, Chemistry Department, University of New Orleans. 2000.
325. Richardson, S. D. Do You Know What's in Your Drinking Water? Identifying the Chemicals and Microorganisms You Can't See. Seminar, Department of Environmental Sciences & Engineering, University of North Carolina. 2000.
326. Richardson, S. D. Identification of New Disinfection By-Products in Drinking Water. SE-SW Regional American Chemical Society Conference. New Orleans, LA. 2000.
327. Richardson, S. D. Do You Know What's in Your Drinking Water? **Plenary Address** at the British Mass Spectrometry Society Conference. Reading, UK. 1999.
328. Richardson, S. D. Identification of New Drinking Water Disinfection By-Products from Ozone, Chlorine Dioxide, Chloramine, and Chlorine. The 7th International Conference of the Israel Society for Ecology and Environmental Quality Sciences on 'Environmental Challenges for the New Millennium'. Jerusalem, Israel. 1999.
329. Richardson, S. D. Do You Know What's in Your Drinking Water? Identification of New Disinfection By-Products. Seminar, Department of Civil Engineering, Technion - Israel Institute of Technology, Haifa, Israel. 1999.
330. Richardson, S. D. Do You Know What's in Your Drinking Water? Identification of New Disinfection By-Products. Seminar, Department of Environmental Sciences, The Hebrew University of Jerusalem, Jerusalem, Israel. 1999.
331. Richardson, S. D. Do You Know What's in Your Drinking Water? Identification of New Disinfection By-Products. Seminar, Israel Ministry of Health, Tel-Aviv, Israel. 1999.
332. Richardson, S. D., T. V. Caughran, T. Poiger, Y. Guo, and F. G. Crumley. Identification of Polar Drinking Water Disinfection By-Products With LC/MS. Georgia Water Resources Conference. Athens, GA. 1999.
333. Richardson, S. D. DNPH Derivatization with Liquid Chromatography/Mass Spectrometry: A Solution for Polar Aldehydes/Ketones that Don't Work by PFBHA-Gas Chromatography Mass Spectrometry. International Workshop, 'Identification of New and Uncharacterized Disinfection By-Products in Drinking Water'. Sponsored by the International Life Sciences Institute. Washington, D.C. 1998.
334. Richardson, S. D. Drinking Water Disinfection By-Products: What is Known. International Workshop, 'Identification of New and Uncharacterized Disinfection By-Products in Drinking Water'. Sponsored by the International Life Sciences Institute. Washington, D.C. 1998.
335. Richardson, S. D. Do You Know What's in Your Drinking Water? **Plenary Address** at the Rocky Mountain Conference on Analytical Chemistry. Denver, CO. 1998.

336. Richardson, S. D., A. D. Thruston, Jr., T. V. Caughran, P. H. Chen, Y. Guo, T. W. Collette, F. G. Crumley, T. L. Floyd, K. M. Schenck, and B. W. Lykins, Jr. Identification of New Disinfection By-Products Using GC/MS, LC/MS, and GC/IR. The American Water Works Association Water Quality Technology Conference, Workshop on 'Innovative Technologies for Drinking Water Analysis', American Water Works Association. San Diego, CA. 1998.
337. Richardson, S. D., T. V. Caughran, T. Poiger, and F. G. Crumley. Identification of Polar Drinking Water Disinfection By-Products with LC/MS. The 46th ASMS Conference on Mass Spectrometry and Allied Topics. Orlando, FL. 1998.
338. Richardson, S. D. Do You Know What's in Your Drinking Water? Identification of New Disinfection By-Products. Seminar, Department of Civil & Environmental Engineering, Georgia Institute of Technology. 1998.
339. Richardson, S. D. Overview of Disinfection By-Products Research and Preliminary ICR Findings. U.S. Environmental Protection Agency STAR Grants Drinking Water Program Review Meeting. Washington, D.C. 1998.
340. Richardson, S. D. Alternative Disinfectants and Comparable DBP Formation. Advanced Drinking Water Technology Conference. Sponsored by the Association of State Drinking Water Administrators, U.S. EPA Region IV, and the Georgia Environmental Protection Division. Atlanta, GA. 1998.
341. Richardson, S. D. Disinfection By-Product Occurrence Overview. U.S. Environmental Protection Agency Disinfection By-Products Health Effects Research Retreat. Research Triangle Park, NC. 1998.
342. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, K. S. Patterson, and B. W. Lykins, Jr. Identification of New Drinking Water Disinfection By-Products. The 45th ASMS Conference on Mass Spectrometry and Allied Topics. Palm Springs, CA. 1997.
343. Richardson, S. D. Alternative Disinfectants for Drinking Water. The Michigan Environmental Health Association's Annual Educational Conference. Traverse City, MI. 1997.
344. Richardson, S. D. Do You Know What's in Your Drinking Water? Identification of New Disinfection By-Products. Seminar, Department of Chemistry & Physics, Georgia College and State University. 1997.
345. Richardson, S. D. Methods for Alternative Disinfectants. U.S. EPA Stakeholder Meeting: Linkage Between Research and Regulatory Needs for the Stage 2 Disinfection By-Product (DBP) Rule and Enhanced Surface Water Treatment Rule (ESWTR), sponsored by the Office of Water. Washington, D.C. 1997.
346. Richardson, S. D. Disinfection By-Products: Identification and Future Regulations. The First European Symposium on Chlorine Dioxide and Disinfection. Rome, Italy. 1996.
347. Richardson, S. D. Identification of Drinking Water Disinfection By-Products from Alternative Disinfectants. Seminar, Department of Analytical Chemistry, University of Torino, Torino, Italy. 1996.
348. Richardson, S. D. Future Use of Chlorine, Chlorine Dioxide, and Other Chlorine Alternatives. The Institute of Food Technologists (IFT) Conference. New Orleans, LA. 1996.

349. Richardson, S.D. Do You Know What's in Your Drinking Water? Seminar, San Diego Mass Spectrometry Discussion Group, Scripps Research Institute, San Diego, CA. 1996.
350. Richardson, S.D. Do You Know What's in Your Drinking Water? Identification of New Disinfection By-Products. Seminar, Chemistry Department, University of Georgia. 1996.
351. Richardson, S.D. Do You Know What's in Your Drinking Water? Identification of New Disinfection By-Products. Seminar for the UGA Chemistry Club (undergraduate and graduate chemistry students), University of Georgia. 1996.
352. Richardson, S. D. Identification of New Drinking Water Disinfection By-Products. Seminar, National Research Council monthly meeting, U.S. EPA, Athens, GA. 1996.
353. Richardson, S. D. Identification of New Disinfection By-Products From Alternative Disinfectants. Seminar, Department of Environmental Sciences & Engineering, University of North Carolina. 1995.
354. Richardson, S. D. Alternative Disinfectants for Drinking Water. Press Conference at the American Chemical Society Conference. Chicago, IL. 1995.
355. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, K. S. Patterson, and B. W. Lykins, Jr. Alternative Disinfectants for Drinking Water. Symposium on Chlorine and Chlorine Compounds in the Paper Industry, the American Chemical Society Conference. Chicago, IL. 1995.
356. Richardson, S. D., T. W. Collette, and A. D. Thruston, Jr. Identification of Chlorine Dioxide and Ozonation Disinfection By-Products in Drinking Water. The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy. Chicago, IL. 1994.
357. Richardson, S. D., A. D. Thruston, Jr., and T. W. Collette. Multispectral Identification of Drinking Water Disinfection By-Products. The 42nd ASMS Conference on Mass Spectrometry and Allied Topics. Chicago, IL. 1994.
358. Richardson, S. D. Multispectral Identification of Drinking Water Disinfection By-Products. The 23rd International Symposium on Environmental Analytical Chemistry. Jekyll Island, GA. 1993.
359. Richardson, S. D. Multispectral Identification of Chlorine Dioxide and Ozonation Disinfection By-Products in Drinking Water. Seminar, U.S. EPA, Cincinnati, OH. July 1993.
360. Richardson, S. D. Do You Know What's in Your Drinking Water? GC/MS and GC/FT-IR Identification of Previously Unidentified Pollutants. The Atlanta/Athens Mass Spectrometry Discussion Group meeting. Athens, GA. Feb. 1993.
361. Richardson, S. D. Influence of Experimental Conditions on the Liquid Secondary Ion Mass Spectra of Sulfonated Azo Dyes. Presentation at the Desorption Ionization Interest Group Workshop entitled 'Sample Manipulation in Fast Atom Bombardment Mass Spectrometry.' The 39th ASMS Conference on Mass Spectrometry and Allied Topics. Nashville, TN. 1991.
362. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, and J. M. McGuire. Application of Multispectral Techniques to the Identification of Aldehydes in a Combined Sewer Overflow. The 13th Annual EPA Conference on Analysis of Pollutants in the Environment. Norfolk, VA. 1990.

## Other Presentations

1. Richardson, S. D., J. Li, M. T. Aziz, and C. Granger. High Resolution-MS Uncovers New Halocyclopentadiene Disinfection By-products in Drinking Water. 71st ASMS Conference on Mass Spectrometry and Allied Topics. Houston, TX. 2023.
2. Richardson, S. D., A. L. Forster, Y. Zhang, and D. C. Westerman. Improved Total Organic Fluorine Methods for More Comprehensive Measurement of PFAS in Industrial Wastewater, River Water, and Air. American Chemical Society Conference. Indianapolis, IN. 2023.
3. Richardson, S. D., M. T. Aziz, C. O. Granger, D. C. Westerman, S. P. Putnam, and J. L. Ferry. Drinking Water Impacts of *Microseira* (Lyngbya) *Wollei* and *Phormidium* Algae. Joint Annual Oceans and Human Health (OHH) Symposium on Harmful Algae and Their Toxins. Fort Myers, FL. 2023.
4. Aziz, M. T., C. O. Granger, S. P. Putnam, J. L. Ferry, and S. D. Richardson. Algae Impacted Drinking Water: Does Switching to Chloramination Produce Safer Drinking Water? Joint Annual Oceans and Human Health (OHH) Symposium on Harmful Algae and Their Toxins. Fort Myers, FL. 2023.
5. Ferry, J. L., T. Metz, M. T. Aziz, P. Justen, S. D. Richardson, and G. Scott. Occurrence of Autoimmune Inflammatory Syndrome-inducing Hydrocarbons in Benthic Cyanobacterial Mats in Lake Wateree SC. Joint Annual Oceans and Human Health (OHH) Symposium on Harmful Algae and Their Toxins. Fort Myers, FL. 2023.
6. Richardson, S. D., A. L. Forster, Y. Zhang, and D. C. Westerman. Capturing the PFAS Footprint: LC-MS/MS vs. a New Total Organic Fluorine Method. International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2022.
7. Forster, A. L., Y. Zhang, D. C. Westerman, and S. D. Richardson. Comparison of LC-MS to a New Combustion Ion Chromatography Method for Total Organic Fluorine Analysis of PFAS in the Environment. The 70<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Minneapolis, MN. 2022.
8. Boyt, J. A., M. T. Aziz, and S. D. Richardson. Disinfection By-Product due to Pollen: More Than Just a Runny Nose. The 70<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Minneapolis, MN. 2022.
9. Richardson, S. D., E. Niehaves, C. Granger, and P. Justen. Chasing Water Through the Pipes: Tracking Changes in 47 Disinfection By-Products in Two Major Drinking Water Distribution Systems. South Carolina Water Resources Conference. Columbia, SC. 2022.
10. Forster, A. L., Y. Zhang, D. C. Westerman, and S. D. Richardson. Development of Two Total Organic Fluorine Methods for the Analysis of Industrial Wastewater, River Water, and Air. South Carolina Water Resources Conference. Columbia, SC. 2022.
11. Justen, P., M. Kilpatrick, and S. D. Richardson. Determination of Disinfection By-Products (DBPs) by Vacuum-Assisted Sorbent Extraction (VASE). South Carolina Water Resources Conference. Columbia, SC. 2022.

12. Weber, C. J., A. L. Forster, and S. D. Richardson. Can Weedkillers Like Roundup Be a Source for PFAS in the Environment? South Carolina Water Resources Conference. Columbia, SC. 2022.
13. Forster, A. L., Y. Zhang, D. C. Westerman, and S. D. Richardson. Development of a New, Robust Total Organic Fluorine Method to Detect Per- and Polyfluoroalkyl Substances in Processed Wastewaters. Fluoros Global Conference. Providence, RI. 2021. Best Poster Award.
14. Perkins, A. A., A. Cuthbertson, and S. D. Richardson. Emerging Unregulated Disinfection By-Products: Can Brita Filters Remove Them? The 69<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Philadelphia, PA. 2021.
15. Granger, C. O., H. K. Liberatore, M. Ferrey, and S. D. Richardson. Calculated Toxicity and Temporal Variability of DBPs Formed from Iodinated X-ray Contrast Media in Chlorinated Wastewater. The 69<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Philadelphia, PA. 2021.
16. Aziz, M. T., D. C. Westerman, C. O. Granger, S. P. Putnam, J. L. Ferry, and S. D. Richardson. Disinfection By-Product formation from Algae and Algae-Impacted Source Waters. The 69<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Philadelphia, PA. 2021.
17. Aziz, M. T., D. C. Westerman, A. A. Cuthbertson, L. Powers, M. Gonsior, S. Putnam, J. L. Ferry, and S. D. Richardson. What Happens When Algae and Algal Toxins Enter Our Drinking Water Sources? Formation of Disinfection By-Products During the Chlorination of *Lyngbya wollei*, *Microcystis aeruginosa*, *Phormidium* sp., and Saxitoxin. American Chemical Society Conference. Atlanta, GA. 2021.
18. Granger, C. O., H. K. Liberatore, M. Ferrey, and S. D. Richardson. Role of iodinated X-ray contrast media as a source of iodine for the formation of iodinated DBPs upon chlorination at wastewater treatment plants. American Chemical Society Conference. Atlanta, GA. 2021.
19. Perkins, A. A., A. Cuthbertson, and S. D. Richardson. Emerging Unregulated Disinfection By-Products: Can Brita Filters Remove Them? American Chemical Society Conference. Atlanta, GA. 2021.
20. Williams, A., C. Grulke, and S. D. Richardson. Web-based access to data for >600 disinfection by-products via the EPA CompTox Chemicals Dashboard. American Chemical Society Conference. Atlanta, GA. 2021.
21. Aziz, M. D., D. C. Westerman, C. O. Granger, S. P. Putnam, J. L. Ferry, and S. D. Richardson. Disinfection By-Product Formation from Harmful Algae and Algae-Impacted Source Waters. Joint Annual Oceans and Human Health (OHH) Symposium on Harmful Algae and Their Toxins (virtual). 2021.
22. Kogevinas, M., I. Evlampidou, S. D. Richardson, S. Krasner, and C. M. Villanueva. Global Assessment of Trihalomethanes (THMs) in Drinking Water. 32nd Annual Conference of the International Society for Environmental Epidemiology. Virtual conference (due to COVID-19). 2020.
23. Kilpatrick, M., V. Noad, S. Dunham, D. Cardin, and S. D. Richardson. A New Way to Analyze Disinfection By-products in Drinking Water and Complex Matrices with Vacuum Assisted Sorbent Extraction (VASE) and GC-MS. The 68<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Virtual conference (due to COVID-19). 2020.



24. Westerman, D. C., L. Powers, M. Gonsior, and S. D. Richardson. Desalination Wastewaters as a Source of Disinfection By-Products in Aquatic Ecosystems. The 68<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Virtual conference (due to COVID-19). 2020.
25. Granger, C. O., H. K. Liberatore, M. L. Ferrey, and S. D. Richardson. Iodinated X-ray Contrast Media as a Source of Iodine for the Formation of Iodinated DBPs Upon Chlorination During Wastewater Treatment. The 68<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Virtual conference (due to COVID-19). 2020.
26. Abraham, D. G., H. K. Liberatore, M. J. Plewa, E. D. Wagner, and S. D. Richardson. Effects of Oil and Gas Extraction on Drinking Water: Measuring Priority DBPs in Hydraulic Fracturing Impacted Waters. The 68<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Virtual conference (due to COVID-19). 2020.
27. Aziz, M. T., D. C. Westerman, A. A. Cuthbertson, S. Putnam, L. Powers, M. Gonsior, J. L. Ferry, and S. D. Richardson. Formation of Disinfection By-Products during the Chlorination of Freshwater Algae *Lyngbya wollei*, *Microcystis aeruginosa*, and Saxitoxin. The 68<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Virtual conference (due to COVID-19). 2020.
28. Abraham, D. G., H. K. Liberatore, M. J. Plewa, E. D. Wagner, and S. D. Richardson. Effects of Oil and Gas Extraction on Drinking Water: Measuring Priority DBPs in Hydraulic Fracturing Impacted Waters. South Carolina Environmental Conference (SCEC). Virtual conference (due to COVID-19). 2020. 1<sup>st</sup> Place Poster Award.
29. Granger, C. O., H. K. Liberatore, M. L. Ferrey, and S. D. Richardson. Role of Iodinated X-ray Contrast Media as a Source of Iodine in the Formation of Iodinated DBPs Upon Chlorination at Wastewater Treatment Plants. South Carolina Environmental Conference (SCEC). Virtual conference (due to COVID-19). 2020. 2<sup>nd</sup> Place Poster Award.
30. Westerman, D. C., L. Powers, M. Gonsior, and S. D. Richardson. Evaluating Desalination Wastewaters as a Source of Disinfection By-Products in Aquatic Ecosystems. South Carolina Environmental Conference (SCEC). Virtual conference (due to COVID-19). 2020. 3<sup>rd</sup> Place Poster Award.
31. Aziz, M. T., D. C. Westerman, A. A. Cuthbertson, S. Putnam, L. Powers, M. Gonsior, J. L. Ferry, and S. D. Richardson. What Happens When Algal Toxins Enter Our Drinking Water Sources? Formation of Disinfection By-Products During the Chlorination of *Lyngbya wollei*, *Microcystis aeruginosa*, and Saxitoxin. South Carolina Environmental Conference (SCEC). Virtual conference (due to COVID-19). 2020.
32. Richardson, S. D., H. K. Liberatore, and M. J. Plewa. Potential Impacts of Hydraulic Fracturing on Drinking Water: High-Resolution-Tandem Mass Spectrometry: Identification of >300 Novel Surfactant-Derived S-DBPs. International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2019.
33. Westerman, D. C., M. T. Aziz, M. L. Smith, A. A. Cuthbertson, S. Putnam, L. Powers, M. Gonsior, J. L. Ferry, and S. D. Richardson. Formation of Unregulated Disinfection By-Products During the Chlorination of Freshwater Algae Species. Gordon Research Conference on Water Disinfection, Byproducts and Health. South Hadley, MA. 2019.
34. Cuthbertson, A. A., J. M. Allen, S. Putnam, and S. D. Richardson. A Small System Case Study: 1-

- Bromo-3-chloro-5,5-dimethylhydantoin (BCDMH) As a Disinfectant. Gordon Research Conference on Water Disinfection, Byproducts and Health. South Hadley, MA. 2019.
35. Abraham, D. G., H. K. Liberatore, D. C. Westerman, J. M. Allen, M. J. Plewa, E. D. Wagner, and S. D. Richardson. Effects of Oil and Gas Extraction on Drinking Water: Measuring Priority DBPs in Hydraulic Fracturing Impacted Waters. Gordon Research Conference on Water Disinfection, Byproducts and Health. South Hadley, MA. 2019.
  36. Westerman, D. C., L. Powers, M. Gonsior, and S. D. Richardson. Desalination Wastewaters as a Source of Disinfection. Gordon Research Conference on Water Disinfection, Byproducts and Health. South Hadley, MA. 2019.
  37. Jia, A., J. M. Allen, C. F. T. Lee, R. Shirkhani, S. W. Krasner, M. J. Plewa, E. D. Wagner, and S. D. Richardson. The Occurrence, Fate, and Seasonal Variabilities of Regulated and Emerging DBPs in U.S. Drinking Water Systems. Gordon Research Conference on Water Disinfection, Byproducts and Health. South Hadley, MA. 2019.
  38. Granger, C. O., H. K. Liberatore, M. Ferrey, and S. D. Richardson. The Journey of Iodinated X-ray Contrast Media Through Wastewater Treatment: Not Only I-DBPs...Also N-DBPs. Gordon Research Conference on Water Disinfection, Byproducts and Health. South Hadley, MA. 2019.
  39. Noad, V. L., S. Dunham, M. Kilpatrick, C. Granger, and D. B. Cardin, and S. D. Richardson. A Solvent-Free Extraction and Thermal Desorption Technique for Quantification of Disinfection By-Products in Water. Gordon Research Conference on Water Disinfection, Byproducts and Health. South Hadley, MA. 2019.
  40. Allen, J. M., M. J. Plewa, D. M. DeMarini, L. Quirk, and S. D. Richardson. Making Pool Water Safer? Using Copper/Silver Electrolysis to Reduce DBP Formation. Gordon Research Conference on Water Disinfection, Byproducts and Health. South Hadley, MA. 2019.
  41. Cuthbertson, A. A., V. J. Esposito, A. A. Perkins, and S. D. Richardson. Removal of Unregulated DBPs by Point-of-Use Activated Carbon Filters. Gordon Research Seminar on Water Disinfection, Byproducts and Health. South Hadley, MA. 2019.
  42. Allen, J. A., M. J. Plewa, A. Jia, C. Guo, A. A. Cuthbertson, H. K. Liberatore, T. Lee, R. Shirkhani, S. W. Krasner, and S. D. Richardson. Drinking Water Safety and Sustainability: Using Mass Spectrometry to Identify Chemical Drivers of Toxicity. The 67<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Atlanta, GA. 2019.
  43. Dong, H., I. Nordhorn, K. Lamann, D. C. Westerman, H. K. Liberatore, and S. D. Richardson. Formation of Toxic Iodinated Disinfection Byproducts during the Cooking of Pasta with Iodized Table Salt. The 67<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Atlanta, GA. 2019.
  44. Granger, C. O., H. K. Liberatore, S. D. Richardson, and M. Ferrey. Iodinated X-ray Contrast Media as a Source of Iodine for the Formation of Iodinated DBPs upon Chlorination during Wastewater Treatment. The 67<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Atlanta, GA. 2019.
  45. Liberatore, H. K., D. C. Westerman, C. O. Granger, A. A. Cuthbertson, J. M. Allen, M. J. Plewa, E. D. Wagner, K. D. Good, A. McKenna, C. R. Weisbrod, J. A. Zweigenbaum, J. M. VanBriesen, and S. D. Richardson. Wastewater Impacts on Drinking Water: Hospital and Energy-Related Wastes and the Formation of Higher-Toxicity Disinfection By-Products. The 67<sup>th</sup> ASMS Conference on Mass

Spectrometry and Allied Topics. Atlanta, GA. 2019.

46. Westerman, D. C., H. K. Liberatore, K. H. Cochran, C. Montagner, M. J. Plewa, L. H. Cizmas, J. VanBriesen, D. Dionysiou, Y. Huang, D. Schlenk, K. Loftin, T. Anumol, and S. D. Richardson. Identification of Transformation Products and Disinfection By-Products in Wastewater Impacted Drinking Water. The 67<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Atlanta, GA. 2019.
47. Westerman, D., H. K. Liberatore, S. Putnam, M. Smith, K. H. Cochran, C. Montagner, M. J. Plewa, L. H. Cizmas, J. M. VanBriesen, D. D. Dionysiou, Y. Huang, J. Ferry, D. Schlenk, K. Loftin, T. Anumol, and S. D. Richardson. Transformation Products and Disinfection By-Products in Drinking Water from Impacted Source Waters. American Chemical Society Conference. Orlando, FL. 2019.
48. Bowers, T., N. Parker, J. Schoener, and S. D. Richardson. Measurement of Bromide and Iodide in South Carolina River: How Salty is Your Water? University of South Carolina Summer Research Symposium. Columbia, SC. 2019.
49. Bowers, T., N. Parker, J. Schoener, and S. D. Richardson. Measurement of Bromide and Iodide in South Carolina Rivers: How Salty is Your Water? NSF EPSCoR National Conference. Columbia, SC. 2019.
50. Richardson, S. D., K. H. Cochran, C. Montagner, D. Westerman, M. J. Plewa, D. D. Dionysiou, Y. Huang, D. Schlenk, M. Strynar, and K. Loftin. Turning Wastewater into Drinking Water: Non-target Identification of Treatment Products Using High Resolution and Tandem Mass Spectrometry. International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2018.
51. Quirk, L., J. M. Allen, and S. D. Richardson. Safer Pools: Copper-Silver Electrolysis as a Novel Pool Disinfectant. University of South Carolina Sustainability Showcase. 2018.
52. Bollar, G., A. Kocur, and S. D. Richardson. Disinfection By-Products in Bottled Water. University of South Carolina Sustainability Showcase. 2018.
53. Cuthbertson, A. A., S. Y. Kimura, H. K. Liberatore, D. R. U. Knappe, B. Stanford, R. S. Summers, E. Dickenson, C. Maness, R. E. Mulhern, C. Glover, M. Selbes, V. Esposito, A. Perkins, and S. D. Richardson. GC-MS Method Development for 62 Emerging Disinfection By-Products to Evaluate Granular Activated Carbon in Full-Scale Plants and at Home. The 66<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. San Diego, CA. 2018.
54. Kimura-Hara, S. Y., A. A. Cuthbertson, J. Byer, and S. D. Richardson. The DBP Exposome: Development of a New Method to Simultaneously Quantify Priority Disinfection By-Products and Comprehensively Identify Unknowns. The 66<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. San Diego, CA. 2018.
55. Liberatore, H. K., M. J. Plewa, E. D. Wagner, J. M. Allen, D. C. Westerman, J. M. VanBriesen, D. B. Burnett, L. H. Cizmas, and S. D. Richardson. Energy Extraction and Utilization Impacts on Drinking Water Disinfection By-Product Formation and Toxicity. The 66<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. San Diego, CA. 2018.
56. Westerman, D., H. K. Liberatore, C. H. Cochran, C. Montagner, D. D. Dionysiou, L. H. Cizmas, and S. D. Richardson. Transformation Products and Disinfection By-Products in Wastewater-Impacted Drinking Water. National Environmental Monitoring Conference. New Orleans, LA. 2018.

57. DeStefano, N. J., J. Allen, B. M. Ehrmann, S. D. Richardson, and P. L. Ferguson. Comprehensive Non-Targeted Characterization of Disinfection Byproducts in Chlorinated Seawater Using LC-HRMS/MS and GC-MS. The 66<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. San Diego, CA. 2018.
58. Allen, J. M., M. J. Plewa, L. Quirk, G. Bollar, and S. D. Richardson. Investigation of Disinfection By-Product Formation and Toxicity of Swimming Pools Utilizing Cu/Ag Electrolysis and Chlorine. The 66<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. San Diego, CA. 2018.
59. Cochran, K., C. Montagner-Raimundo, D. Westerman, B. Fryer, S. Kimura-Hara, W. Abdelraheem, Y. Huang, S. Coffin, E. G. Xu, D. D. Dionysiou, D. Schlenk, and S. D. Richardson. The 66<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. San Diego, CA. 2018.
60. Allen, J., L. Quirk, G. Bollar, M. J. Plewa, and S. D. Richardson. Investigation of Disinfection By-Product Formation and Toxicity of Swimming Pools Utilizing Cu/Ag Electrolysis and Chlorine. Southeast Regional American Chemical Society (SERMACS) Conference. Augusta, GA. 2018.
61. Cuthbertson, A. A., V. Esposito, A. Perkins, S. Kimura-Hara, and S. D. Richardson. Effectiveness of at Home Point-of-Use Granular Activated Carbon Filtration Systems (Brita) in Removing Unregulated Disinfection By-Products. Southeast Regional American Chemical Society (SERMACS) Conference. Augusta, GA. 2018.
62. Granger, C., H. K. Liberatore, and S. D. Richardson. Formation of Iodinated Disinfection By-Products from Iodinated X-Ray Contrast Media via Chlorination. South Carolina Water Resources Conference. Columbia, SC. 2018.
63. Allen, J. M., L. Quirk, and S. D. Richardson. Investigation of Disinfection By-Product Formation and Toxicity of Swimming Pools Utilizing Ag/Cu Electrolysis and Chlorine in Myrtle Beach, SC. South Carolina Water Resources Conference. Columbia, SC. 2018.
64. Liberatore, H. K., and S. D. Richardson. A Sensitive, Selective Method for Quantification of Iodoacetic Acids in Drinking Water. South Carolina Water Resources Conference. Columbia, SC. 2018.
65. Cuthbertson, A. A., A. Perkins, V. Esposito, and S. D. Richardson. The Effectiveness of At-Home, Point-of-Use Granular Activated Carbon Filtration Systems in Removing Unregulated Disinfection By-Products. South Carolina Water Resources Conference. Columbia, SC. 2018.
66. Richardson, S. D., A. A. Cuthbertson, S. Y. Kimura, H. K. Liberatore, D. Knappe, B. Stanford, R. S. Summers, and E. Dickenson. Can we make drinking water safer? Tandem Mass Spectrometry and a Giant Brita Filter. International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2017.
67. Cochran, K. H., S. Y. Kimura, D. Dionysiou, D. Schlenk, K. Loftin, and S. D. Richardson. Moving Towards Potable Water Reuse: Fate and Transformation of Persistent Priority Contaminants with Microfiltration, Reverse Osmosis, Advanced Oxidation Processes and Chlorine Disinfection. 11th IWA International Conference on Water Reclamation and Reuse. Long Beach, CA. 2017.
68. Kimura, S. Y., A. A. Cuthbertson, J. Byer, and S. D. Richardson. The DBP Exposome: Development of a New Method to Simultaneously Quantify Priority Disinfection By-Products and Comprehensively Identify Unknowns. The Gordon Research Conference on Drinking Water Disinfection By-Products.

South Hadley, MA. 2017.

69. Cuthbertson, A. A., S. Y. Kimura, H. K. Liberatore, S. D. Richardson, D. Knappe, R. S. Summers, E. Dickenson, and B. Stanford. Using Granular Activated Carbon for the Reduction of DBPs in Full-Scale Drinking Plants. The Gordon Research Conference on Drinking Water Disinfection By-Products. South Hadley, MA. 2017.
70. Liberatore, H. K., S. D. Richardson, J. M. VanBriesen, M. J. Plewa, D. B. Burnett, and L. H. Cizmas. Identification and Comparative Mammalian Cell Cytotoxicity of New Iodo-Phenolic Disinfection By-Products in Chloraminated Oil and Gas Treated Wastewater. The Gordon Research Seminar on Drinking Water Disinfection By-Products. South Hadley, MA. 2017.
71. Allen, J. M., A. A. Cuthbertson, H. K. Liberatore, S. Y. Kimura, A. Mantha, M. A. Edwards, and S. D. Richardson. Showering in Flint, MI: Is there a DBP problem? The Gordon Research Conference on Drinking Water Disinfection By-Products. South Hadley, MA. 2017.
72. Westerman, D., K. Lamann, H. K. Liberatore, A. A. Cuthbertson, and S. D. Richardson. Iodinated All the Pastabilities: Disinfection By-Products in Pasta Cooked with Iodized Salt. The Gordon Research Conference on Drinking Water Disinfection By-Products. South Hadley, MA. 2017.
73. Richardson, S. D., A. A. Cuthbertson, S. Y. Kimura, H. K. Liberatore, D. Knappe, B. Stanford, R. S. Summers, E. Dickenson, C. Seidel, C. Maness, R. Mulhern, A. Ghosh, and J. Byer. Combining Non-Target and Target Screening of DBPs: Assessing Removal Strategies to Make Drinking Water Safer. The 65th ASMS Conference on Mass Spectrometry and Allied Topics. Indianapolis, IN. 2017.
74. Perkins, A. A., V. J. Esposito, and S. D. Richardson. Disinfection By-Product Removal Efficiency of Activated Carbon Filters for Home-Use. South Carolina Environmental Conference. North Myrtle Beach, SC. 2017.
75. Allen, J. M., A. A. Cuthbertson, S. Y. Kimura, H. K. Liberatore, M. Franco, and S. D. Richardson. Is There a Disinfection By-Product Problem in Flint? South Carolina Environmental Conference. North Myrtle Beach, SC. 2017.
76. Cochran, K., Casado, J., Russo, D., Spasiano, D., Vaccaro, M., Andreozzi, R., Marotta, R., Reis, N. M., Li Puma, G., Dionysiou, D., Schlenk, D., and S. D. Richardson. Removal and Transformation of Persistent Priority Emerging Contaminants Via Advanced Oxidation Techniques and Transformation Product Identification Using Mass Spectrometry. South Carolina Environmental Conference. North Myrtle Beach, SC. 2017.
77. Allen, J. M. and S. D. Richardson. Sustainability and Flint: How to Keep This Drinking Water Crisis From Happening Again. University of South Carolina Sustainability Showcase. 2017.
78. Richardson, S. D., H. K. Liberatore, J. M. VanBriesen, M. J. Plewa, and L. H. Cizmas. Hydraulic Fracturing Impacts on Drinking Water: High Resolution and Tandem-MS Uncovering New Chemical By-Products. International Tandem Mass Spectrometry Workshop. Lake Louise Canada. 2016.
79. Richardson, S. D., E. J. Daiber, S. A. Ravuri, H. K. Liberatore, A. A. Cuthbertson, A. Thompson-Klemish, J. D. Byer, J. Binkley, M. Z. Afifi, E. R. Blatchley III, J. E. Schmid, and D. M. DeMarini. Comprehensive Chemistry and Mutagenicity of Disinfection By-Products in Swimming Pools and Spas. International Mass Spectrometry Conference. Toronto, Canada. 2016.

80. Cuthbertson, A. A., S. Y. Kimura, S. D. Richardson, D. Knappe, C. Seidel, R. S. Summers, B. Stanford, and E. Dickenson. Use of Granular Activated Carbon (GAC) for Controlling Emerging Disinfection By-Products (DBPs). Water Quality Technology Conference. Indianapolis, IN. 2016.
81. Liberatore, H. K., S. D. Richardson, J. M. VanBriesen, M. J. Plewa, D. B. Burnett, and L. H. Cizmas. Impacts of Hydraulic Fracturing on Drinking Water: Disinfection By-Products. Southeast Regional American Chemical Society (SERMACS) Conference. Columbia, SC. 2016.
82. Liberatore, H. K., S. D. Richardson, J. M. VanBriesen, M. J. Plewa, D. B. Burnett, and L. H. Cizmas. Sustainable Hydraulic Fracturing. South Carolina Water Resources Conference. Columbia, SC. 2016.
83. Joshua M. Allen, J. M., A. A. Cuthbertson, S. Y. Kimura, H. K. Liberatore, and S. D. Richardson. Is There a Disinfection By-Product Problem in Flint? South Carolina Water Resources Conference. Columbia, SC. 2016.
84. Cochran, K. H., J. Casado, D. Russo, D. Spasiano, M. Vaccaro, G. Li Puma, R. Andreozzi, N. M. Reis, R. Marotta, D. D. Dionysiou, D. Schlenk, and S. D. Richardson. Removal and Transformation of Persistent Priority Emerging Contaminants Via Advanced Oxidation Techniques and Transformation Product Identification Using Mass Spectrometry. South Carolina Water Resources Conference. Columbia, SC. 2016.
85. Liberatore, H. K., S. D. Richardson, J. M. VanBriesen, M. J. Plewa, D. B. Burnett, and L. H. Cizmas. Sustainable Hydraulic Fracturing. University of South Carolina Sustainability Showcase. Columbia, SC. 2016.
86. Richardson, S. D., H. K. Liberatore, J. M. VanBriesen, M. J. Plewa, and L. H. Cizmas. Hydraulic Fracturing Impacts on Drinking Water: High Resolution-MS Uncovers New Chemical By-Products. The 64<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. San Antonio, TX. 2016.
87. Liberatore, H. K.; Cuthbertson, A. A.; S. D. Richardson. Method Development in Quantification of Iodoacetic Acids in Drinking Water Using GC/EI-MS/MS. The 64th American Society for Mass Spectrometry (ASMS) Conference on Mass Spectrometry and Allied Topics. San Antonio, TX. 2016.
88. Cochran, K. H., J. Casado, D. Russo, D. Spasiano, M. Vaccaro, G. Li Puma, R. Andreozzi, N. M. Reis, R. Marotta, D. D. Dionysiou, D. Schlenk, and S. D. Richardson. Removal and Transformation of Persisting Emerging Contaminants via Advanced Oxidation Techniques. The 64th ASMS Conference on Mass Spectrometry and Allied Topics. San Antonio, TX. 2016.
89. Joseph, C. M., C. Postigo, M. J. Plewa, T. A. Ternes, F. Wendel, C. Luetke-Eversloh, S. E. Duirk, and S. D. Richardson. Medical Imaging Compounds as a Source for New Iodo-Disinfection Byproducts in Drinking Water. The 64th American Society for Mass Spectrometry (ASMS) Conference on Mass Spectrometry and Allied Topics. San Antonio, TX. 2016.
90. Kadlec, J. L., H. K. Liberatore, S. Y. Kimura, A. A. Cuthbertson, M. E. McDonell, and S. D. Richardson. Is Iodophor Sanitizer an Important Precursor to the Formation of Toxic Iodinated Disinfection By-Products in Drinking Water? University of South Carolina Discovery Day. Columbia, SC. 2016.
91. Richardson, S. D., K. H. Cochran, M. Vaccaro, D. Russo, D. Spasiano, R. Marotta, R. Andreozzi, N. M. Reis, G. Li Puma. Using a Novel Photo-Micro-Reactor to Remove Benzoyllecgonine in Wastewater

- Treatment: Uncovering Photo-Transformation Products and the Reaction Pathways with Advanced Mass Spectrometry Tools. 249<sup>th</sup> American Chemical Society National Meeting, Denver, CO. 2015.
92. Richardson, S. D., S. Y. Kimura, K. H. Cochran, A. A. Cuthbertson, C. M. Joseph, H. K. Liberatore, A. Bensussan, and M. Franco. Safe and Sustainable Drinking Water. University of South Carolina Sustainability Showcase. Columbia, SC. 2015.
  93. Richardson, S. D., F. Wendel, C. Luetke Eversloh, T. A. Ternes, E. Machek, S. Duirk, C. Postigo, and M. J. Plewa, Tandem Mass Spectrometry Uncovers Chlorination Reaction Pathway for X-Ray Contrast Media in Drinking Water Treatment. International Tandem Mass Spectrometry Conference, Lake Louise Canada. 2014.
  94. Richardson, S. D., C. Postigo, C. H. Jeong, E. D. Wagner, M. J. Plewa, J. E. Simmons, and D. Barcelo. Occurrence and Toxicity of Haloacetaldehydes in Drinking Waters: Discovery of Iodo-Acetaldehyde as a Drinking Water Disinfection By-Product. The 62<sup>nd</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Baltimore, MD. 2014.
  95. Richardson, S. D., W. Elshorbagy, R. Harren, T. Petty, and M. J. Plewa. Toxic Brominated and Iodinated Disinfection By-Products: A Concern for New Desalination Technologies? 248<sup>th</sup> American Chemical Society National Meeting, San Francisco, CA. 2014.
  96. Postigo, C., S. D. Richardson, C. H. Jeong, E. D. Wagner, M. J. Plewa, J. E. Simmons, and D. Barcelo. Occurrence and Toxicity of Haloaldehydes in Drinking Waters: Iodoacetaldehyde as an Emerging Disinfection Byproduct. 248<sup>th</sup> American Chemical Society National Meeting, San Francisco, CA. 2014.
  97. Richardson, S. D., E. J. Daiber, S. Anduri, D. M. DeMarini, E. R. Blatchley III, and M. Z. Afifi. From Source Water to Tap Water to Swimming Pool and Spa Water: Effects of Disinfectants and Implications for Exposure and Toxicity. The 61<sup>st</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Minneapolis, MN. 2013.
  98. Richardson, S. D., S. Anduri, M. Bloodgood, M. J. Plewa, C. Jeong, E. D. Wagner, M. Nieuwenhuijsen, M. Kogevinas, C. Villanueva, W. Luo, L. Isabelle, and J. F. Pankow. Combining Mass Spectrometry and Toxicology for a Multi-Country European Epidemiologic Study on Drinking Water Disinfection By-Products. The 60<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Vancouver, BC, Canada. 2012.
  99. Richardson, S. D., S. E. Duirk, C. Lindell, C. C. Cornelison, T. A. Ternes, J. L. Kormos, M. J. Plewa, E. Smith, and W. A. Mitch. Formation of Highly Toxic Iodo-DBPs in Drinking Water. The 59<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics. Denver, CO. 2011.
  100. Richardson, S. D., D. M. DeMarini, M. Kogevinas, P. Fernandez, E. Marco, C. Lourencetti, C. Balleste, D. Heederik, K. Meliefste, A. B. McKague, R. Marcos, L. Font-Ribera, J. O. Grimalt, and C. M. Villanueva. What's in the Pool? A Comprehensive Identification of Disinfection By-Products and Assessment of Mutagenicity of Chlorinated and Brominated Swimming Pool Water. The 239<sup>th</sup> American Chemical Society National Meeting. San Francisco, CA. 2010.
  101. Anduri, S., S. D. Richardson, M. Bloodgood, M. J. Plewa, C. Jeong, M. Nieuwenhuijsen, M. Kogevinas, C. Villanueva, W. Luo, L. Isabelle, and J. Pankow. Multi-Country Epidemiologic Study on Human Health Risks from Drinking Water Disinfection By-Products: Comprehensive Mass Spectrometry Characterization. The Atlanta-Athens Mass Spectrometry Discussion Group Summer

Symposium, Athens, GA. 2010.

102. Richardson, S. D., M. Kogevinas, C. Villanueva, J. Grimalt, P. Fernandez, E. Marco, C. Lourencetti, C. Balleste, D. Heederik, and K. Meliefste. Comprehensive Identification of Chemical Disinfection By-Products from Chlorinated and Brominated Swimming Pools. Gordon Research Conference on Drinking Water Disinfection By-Products. South Hadley, MA. 2009.
103. Richardson, S. D., S. Duirk, C. Lindell, C. Cornelison, and T. A. Ternes. Iodo-DBP Formation from the Reaction of Chlorinated Oxidants with X-Ray Contrast Media in the Presence of Natural Organic Matter. Micropol and Ecohazard Conference. San Francisco, CA. 2009.
104. Richardson, S. D., J. E. Simmons, M. Narotsky, L. Claxton, E. S. Hunter, III, R. Miltner, J. Pressman, T. Speth, G. Rice, L. Teuschler, S. Krasner, and H. Weinberg. Integrated Disinfection By-Product Mixtures Research: Results from the Four Lab Study. Micropol and Ecohazard Conference. San Francisco, CA. 2009.
105. Richardson, S. D., S. E. Duirk, C. Lindell, C. Cornelison, T. A. Ternes, J. Kormos, and M. J. Plewa. Formation of Iodo-DBPs from X-Ray Contrast Media: Update on Mechanisms and Toxicity of Reaction Products. The 22nd Annual International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2009.
106. Richardson, S. D., D. M. DeMarini, M. Kogevinas, P. Fernandez, E. Marco, C. Lourencetti, C. Balleste, D. Heederik, K. Meliefste, A. B. McKague, R. Marcos, L. Font-Ribera, J. O. Grimalt, C. M. Villanueva. What's in the Pool? A Comprehensive Identification of Disinfection By-Products and Assessment of Mutagenicity of Chlorinated and Brominated Swimming Pool Waters. The 22nd Annual International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2009.
107. Richardson, S. D., S. Duirk, C. Lindell, C. Cornelison, T. A. Ternes, and M. J. Plewa. Iodo-DBP Formation from the Reaction of Chlorinated Oxidants with X-Ray Contrast Media in the Presence of Natural Organic Matter. The Atlanta-Athens Mass Spectrometry Discussion Group Annual Symposium, Atlanta, GA. 2009.
108. Richardson, S. D., S. E. Duirk, C. Lindell, C. Cornelison, T. A. Ternes, and G. Fink. Do Iodine Contrast Media Compounds Used for Medical Imaging Contribute to the Formation of Iodinated Disinfection By-Products in Drinking Water? The 21st Annual International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2008.
109. Richardson, S. D., J. E. Simmons, R. J. Miltner, J. Pressman, T. F. Speth, M. G. Narotsky, E. S. Hunter, III, G. Rice, L. K. Teuschler, S. W. Krasner, and H. S. Weinberg. Integrated Disinfection Byproducts Mixtures Research: Results from the Four Lab Study. Gordon Research Conference (Environmental Sciences: Water). Plymouth, NH. 2008.
110. Richardson, S. D., J. E. Simmons, R. J. Miltner, J. Pressman, T. F. Speth, M. G. Narotsky, E. S. Hunter, III, G. Rice, L. K. Teuschler, S. W. Krasner, and H. S. Weinberg. Integrated Disinfection Byproducts Mixtures Research: Results from the Four Lab Study. 56th ASMS Conference on Mass Spectrometry and Allied Topics. Denver, CO. 2008.
111. Lindell, C., S. Duirk, S. D. Richardson, and T. A. Ternes. Occurrence and Formation of Iodinated Disinfection By-Products in Drinking Water. The Atlanta-Athens Mass Spectrometry Discussion Group Summer Symposium, Athens, GA. 2008.



112. Richardson, S. D., F. Fasano, J. J. Ellington, F. G. Crumley, K. Buettner, J. J. Evans, B. C. Blount, L. K. Silva, F. L. Cardinali, M. J. Plewa, E. D. Wagner, G. W. Luther, III, and T. J. Waite. Iodo-Acid Disinfection By-Products in Drinking Water: Does LC/ESI-MS/MS Offer an Advantage Over GC/NCIMS? The 20th Annual International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2007.
113. Richardson, S. D., F. Fasano, J. J. Ellington, F. G. Crumley, K. Buettner, J. J. Evans, B. C. Blount, L. K. Silva, F. L. Cardinali, M. J. Plewa, E. D. Wagner, G. W. Luther, III, and T. J. Waite. Occurrence and Toxicity of Iodinated Disinfection By-Products in Drinking Water. Micropol and Ecohazard Conference. Frankfurt, Germany. 2007.
114. Richardson, S. D., F. G. Crumley, F. Fasano, M. J. Plewa, E. D. Wagner, L. Williamson, M. Bartlett, T. H. Mize, P. Angel, and R. Orlando. Chlorinated vs. Chloraminated Drinking Water: Toxicity-Based Identification of Drinking Water Disinfection By-Products Using ESI-MS and ESI-MS/MS. The American Chemical Society Conference. Chicago, IL. 2007.
115. Richardson, S. D., F. G. Crumley, F. Fasano, M. J. Plewa, E. D. Wagner, L. Williamson, M. Bartlett, T. H. Mize, P. Angel, and R. Orlando. Chlorinated vs. Chloraminated Drinking Water: Toxicity-Based Identification of Drinking Water Disinfection By-Products Using ESI-MS and ESI-MS/MS. The 55th ASMS Conference on Mass Spectrometry and Allied Topics. Indianapolis, IN. 2007.
116. Narotsky, M. G., J. G. Pressman, R. J. Miltner, T. F. Speth, L. K. Teuschler, G. E. Rice, S. D. Richardson, D. S. Best, A. McDonald, E. S. Hunter III, and J. E. Simmons. Gestational and Lactational Effects in Rats of Sodium, Sulfate, and Concentrated Disinfection By-Products in Drinking Water. The Society of Teratology 47th Annual Conference, Pittsburgh, PA. 2007.
117. Richardson, S. D., F. G. Crumley, F. Fasano, M. J. Plewa, E. D. Wagner, L. Williamson, M. Bartlett, T. H. Mize, P. Angel, and R. Orlando. Chlorinated vs. Chloraminated Drinking Water: Toxicity-Based Identification of Drinking Water Disinfection By-Products Using ESI-MS and ESI-MS/MS. The Atlanta-Athens Mass Spectrometry Discussion Group Summer Symposium, Athens, GA. 2007.
118. Richardson, S. D., F. G. Crumley, F. Fasano, M. J. Plewa, E. D. Wagner, L. Williamson, M. Bartlett, P. Angel, and R. Orlando. Mass Spectrometry and Toxicity Characterization of Drinking Water Fractions: Are High Molecular Weight DBPs Toxic? The 19th Annual International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2006.
119. Richardson, S. D., F. G. Crumley, K. Buettner, J. J. Ellington, J. J. Evans, B. C. Blount, L. K. Silva, F. L. Cardinali, M. J. Plewa, E. D. Wagner, R. Miltner, G. Luther, T. Waite, and A. B. McKague. Occurrence of Iodo-Acid and Iodo-THM Disinfection By-Products in Chloraminated Drinking Water. Gordon Research Conference (Drinking Water Disinfection By-Products). South Hadley, MA. 2006.
120. Richardson, S. D., F. G. Crumley, J. J. Ellington, J. J. Evans, B. C. Blount, L. K. Silva, F. L. Cardinali, M. J. Plewa, and E. D. Wagner. Occurrence of Iodo-Acid and Iodo-THM DBPs in U.S. Chloraminated Drinking Waters. The American Chemical Society Conference. Atlanta, GA. 2006.
121. Richardson, S. D., F. G. Crumley, J. J. Ellington, J. J. Evans, B. C. Blount, L. K. Silva, F. L. Cardinali, M. J. Plewa, and E. D. Wagner. Occurrence and Toxicity of Iodo-Acid and Iodo-THM DBPs in Chloraminated Drinking Waters. Symposium on 'Safe Drinking Water: Where Science Meets Policy'. Chapel Hill, NC. 2006.
122. Richardson, S. D. Toxicity Based Identification of Drinking Water Disinfection By-Products Using

- ESIMS and ESI-MS/MS. 18th Annual International Tandem Mass Spectrometry Workshop. Lake Louise, Canada. 2005.
123. Richardson, S. D., J. J. Ellington, F. G. Crumley, J. J. Evans, M. J. Plewa, and E. D. Wagner. Measurement and Toxicity of Iodo-Acid Disinfection By-Products in Chloraminated Drinking Water. The 53rd ASMS Conference on Mass Spectrometry and Allied Topics. San Antonio, TX. 2005.
  124. Richardson, S. D., A. D. Thruston, Jr., and F. G. Crumley. Identification of Disinfection By-Products in Swimming Pool Water. The 52nd ASMS Conference on Mass Spectrometry and Allied Topics. Nashville, TN. 2004.
  125. Choi, J., and S. D. Richardson. Formation of Halonitromethanes in Drinking Water During Chlorination. The 52nd ASMS Conference on Mass Spectrometry and Allied Topics. Nashville, TN. 2004.
  126. Richardson, S. D., A. D. Thruston, Jr., S. W. Krasner, H. S. Weinberg, R. Chinn, M. J. Scilimenti, S. Pastor, and G. D. Onstad. Disinfection By-Products of Health Concern in Drinking Water: Results of a U.S. Nationwide Occurrence Study. The 16th International Mass Spectrometry Conference. Edinburgh, Scotland. 2003.
  127. Popilvsky, I., Ch. Rav-Acha, L. Groisman, O. Juraev, V. Glezer, and S. D. Richardson. Determination of Aldehydes in the National Water Carrier (NWC) Following Chlorine and Chlorine Dioxide Treatments. Annual Meeting of the Israeli Analytical Society, Jerusalem, Israel. 2003.
  128. Thruston, Jr., A. D., S. D. Richardson, L. A. Couillard, C. Lewis, and P. Klappa. GC/MS Identification of Drinking Water Disinfection By-Products From Milwaukee's New Ozonation Plants. The 51st ASMS Conference on Mass Spectrometry and Allied Topics. Montreal, Canada. 2003.
  129. Plewa, M. J., E. D. Wagner, A. Kim, R. Nelson, and S. D. Richardson. Mammalian Cell Cytotoxicity and Genotoxicity of New Drinking Water Disinfection By-Products. The Environmental Mutagen Society Annual Conference. Miami, FL. 2003.
  130. Richardson, S. D., A. D. Thruston, Jr., S. W. Krasner, H. S. Weinberg, R. Chinn, M. J. Scilimenti, S. Pastor, and G. D. Onstad. Emerging Disinfection By-Products of Toxicological Interest: Results of a Nationwide Occurrence Study. U.S. EPA Science Forum, Washington, D.C. 2003.
  131. Richardson, S. D., A. D. Thruston, Jr., and G. Crumley. Swimming Pool Disinfection By-Products and Upcoming Research on Iodo-DBPs in Drinking Water. Atlanta-Athens Mass Spectrometry Discussion Group Fall Symposium. Athens, GA. 2003.
  132. Richardson, S. D., and D. M. DeMarini. Drinking Water Disinfection By-Products: Results of a Nationwide Occurrence Study and Latest Information on Adverse Health Effects. Joint seminar, U.S. EPA, National Exposure Research Laboratory, Athens, GA. 2003.
  133. Richardson, S. D., A. D. Thruston, Jr., A. B. McKague, C. Rav-Acha, and V. Glezer. Identification of New Brominated Acids in Drinking Water. The 50th ASMS Conference on Mass Spectrometry and Allied Topics. Orlando, FL. 2002.
  134. Thruston, Jr., A. D., S. D. Richardson, and P. H. Chen. Artifacts Formed in Drinking Water Analysis. The 50th ASMS Conference on Mass Spectrometry and Allied Topics. Orlando, FL. 2002.

135. Vincenti, M., P. Davit, and S. D. Richardson. Comparison of Perfluorinated Chloroformates as Direct Aqueous Sample Derivatizing Agents for Highly Hydrophilic Analytes. The 50th ASMS Conference on Mass Spectrometry and Allied Topics. Orlando, FL. 2002.
136. Krasner, S. W., R. Chinn, S. Pastor, M. J. Scilimenti, S. D. Richardson, A. D. Thruston, Jr., and H. S. Weinberg. Relationships Between the Different Classes of DBPs: Formation, Speciation, and Control. The American Water Works Association Water Quality Technology Conference. Seattle, WA. 2002.
137. Scilimenti, M. J., S. W. Krasner, and S. D. Richardson. The Determination of DBPs Using a Solid Phase Microextraction (SPME)-GC/ECD Technique. The American Water Works Association Water Quality Technology Conference. Seattle, WA. 2002.
138. Couillard, L. A., C. Lewis, P. Klappa, and S. D. Richardson. Incorporation of Expanded Ozonation Disinfection By-Products as Analytes into the D/DBP Rule Monitoring Effort. The American Water Works Association Water Quality Technology Conference. Seattle, WA. 2002.
139. Narotsky, M. G., D. S. Best, E. H. Rogers, A. McDonald, Y. M. Sey, E. S. Hunter, III, L. K. Teuschler, R. J. Miltner, T. F. Speth, K. M. Schenck, S. D. Richardson, M. C. Man, and J. E. Simmons. Developmental Toxicity Evaluation of Water From Alternative Disinfection Scenarios. 42nd Annual Meeting of the Teratology Society. Scottsdale, AZ. 2002.
140. Richardson, S. D., A. D. Thruston, Jr., S. W. Krasner, and H. S. Weinberg. A Nationwide Drinking Water DBP Occurrence Study -- Identification of New and Toxicologically Significant Compounds with Mass Spectrometry. Atlanta-Athens Mass Spectrometry Discussion Group Summer Symposium. Athens, GA. 2002.
141. Teuschler, L. K., S. Hunter, L. Claxton, M. Narotsky, R. Pegram, G. Rice, S. Richardson, R. Miltner, T. Speth, and K. Schenck. ORD's Four Lab Study: Toxicological and Chemical Evaluation of Complex Mixtures of Drinking Water Disinfection By-Products. U.S. EPA Science Forum, Washington, D.C. 2002.
142. Richardson, S. D., A. D. Thruston, Jr., H. S. Weinberg, and S. W. Krasner. A Nationwide Drinking Water Disinfection By-Product Occurrence Study--Identification of New and Toxicologically Significant Compounds with Mass Spectrometry. The Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Annual Conference. Detroit, MI. 2001.
143. Richardson, S. D., A. D. Thruston, Jr., T. F. Speth, R. J. Miltner, G. Rice, K. M. Schenck, S. W. Krasner, H. S. Weinberg, L. K. Teuschler, and J. E. Simmons. Chemical and Toxicological Evaluation of Chlorinated and Ozone-Chlorinated Drinking Water: A Collaboration of the Four National Labs of the U.S. EPA. The 49th ASMS Conference on Mass Spectrometry and Allied Topics. Chicago, IL. 2001.
144. Thruston, Jr., A.D., S. D. Richardson, S. W. Krasner, S. Pastor, H. S. Weinberg, and G. D. Onstad. Occurrence of Disinfection By-Products in Drinking Waters -- Preliminary Results of a Nationwide Occurrence Study. The 49th ASMS Conference on Mass Spectrometry and Allied Topics. Chicago, IL. 2001.
145. Davit, P., and S. D. Richardson. Ozonation of Model Compounds of Humic and Fulvic Acids: A Way to Predict Drinking Water Disinfection By-Products and Their Mechanism of Formation. The 49th ASMS Conference on Mass Spectrometry and Allied Topics. Chicago, IL. 2001.

146. Kargalioglu, Y., E. D. Wagner, S. D. Richardson, R. A. Minear, and M. J. Plewa. Mammalian Cell Genotoxicity of Drinking Water Disinfection By-Products Using Single Cell Gel Electrophoresis. Environmental Mutagen Society Annual Conference. New Orleans, LA. 2001.
147. Krasner, S. W., S. Pastor, R. Chinn, M. J. Scimmenti, H. S. Weinberg, and S. D. Richardson. The Occurrence of a New Generation of DBPs (Beyond the ICR). The American Water Works Association Water Quality Technology Conference. Nashville, TN. 2001.
148. Weinberg, H. S., S. W. Krasner, and S. D. Richardson. Determination of New Carbonyl-Containing Disinfection By-Products in Drinking Water. The American Water Works Association Water Quality Technology Conference. Nashville, TN. 2001.
149. Gonzalez, A. C., S. W. Krasner, H. Weinberg, and S. D. Richardson. Determination of Newly Identified Disinfection By-Products in Drinking Water. American Water Works Association Symposium on Microbial/Disinfection By-Products (M/DBP) Health Effects. Chicago, IL. 2001.
150. Onstad, G. D., H. S. Weinberg, S. W. Krasner, and S. D. Richardson. Evolution of Analytical Methods for Halogenated Furanones in Drinking Water. American Water Works Association Symposium on Microbial/Disinfection By-Products (M/DBP) Health Effects. Chicago, IL. 2001.
151. Simmons, J. E., L. Teuschler, R. Miltner, T. Speth, G. Rice, K. Schenck, M. Narotsky, and S. D. Richardson. Development of a Research Strategy for Integrated Disinfection By-Products Mixtures Research: Toxicological and Chemical Evaluation of Alternative Disinfection Treatment Scenarios. Microbial/DBP Health Effects Symposium, The American Water Works Association Water Quality Technology Conference. Chicago, IL. 2001.
152. Moudgal, C., G. Rice, R. Bruce, L. Teuschler, and S. D. Richardson. Estimating Risk Posed by Drinking Water Disinfection By-Products. The Society of Toxicology Annual Meeting. San Francisco, CA. 2001.
153. Kundu, B., S. H. Warren, D. M. DeMarini, S. D. Richardson, E. D. Wagner, and M. J. Plewa. Mutagenicity in Salmonella and DNA Damage in the CHO/Comet Assay Induced by Nitrohalomethanes, a Novel Class of Drinking Water Disinfection By-Products. The Environmental Mutagen Society Conference. San Diego, CA. 2001.
154. Monarca, S., D. Feretti, I. Zerbin, C. Zani, S. D. Richardson, A. D. Thruston, Jr., P. Ragazzo, and L. Guzzella. Mutagenicity and Disinfection By-Products in Surface Drinking Water Disinfected with Peracetic Acid. The International Water Association World Water Congress. Berlin, Germany. 2001.
155. Richardson, S. D., A. D. Thruston, Jr., T. F. Speth, R. J. Miltner, G. Rice, K. M. Schenck, S. W. Krasner, H.S. Weinberg, L. K. Teuschler, and J. E. Simmons. Chemical and Toxicological Evaluation of Chlorinated and Ozone-Chlorinated Drinking Water: A Collaboration of the Four National Labs of the U.S. EPA. Atlanta-Athens Mass Spectrometry Discussion Group Summer Symposium. Athens, GA. 2001.
156. Richardson, S. D., A. D. Thruston, Jr., C. Rav-Acha, and V. Glezer. Drinking Water in Israel: The Effect of Chlorine Dioxide Disinfection on High Bromide Waters. Atlanta-Athens Mass Spectrometry Discussion Group Summer Symposium. Athens, GA. 2000.

157. Mintz, B., and S. D. Richardson. Unidentified Disinfection By-Products in Drinking Water—Consequences for Risk Assessment/Risk Management. Federal/State Toxicology and Risk Analysis Committee (FSTRAC) Biannual Meeting. RTP, NC. 2000.
158. Richardson, S. D., A. D. Thruston, Jr., C. Rav-Acha, and V. Glezer. Identification of Chlorine Dioxide Drinking Water Disinfection By-Products Formed at High Bromide Levels. The 48th ASMS Conference on Mass Spectrometry and Allied Topics. Long Beach, CA. 2000.
159. Thruston, A.D., Jr., S. D. Richardson, P. H. Chen, C. Rav-Acha, and V. Glezer. Survey of Halonitromethanes and Iodomethanes: Disinfection By-Products in Drinking Water. The 48th ASMS Conference on Mass Spectrometry and Allied Topics. Long Beach, CA. 2000.
160. Gonzalez, A. C., S. W. Krasner, H. Weinberg, and S. D. Richardson. Determination of Newly Identified Disinfection By-Products in Drinking Water. The American Water Works Association Water Quality Technology Conference, Salt Lake City, UT. 2000.
161. Onstad, G. D., H. S. Weinberg, S. W. Krasner, and S. D. Richardson. Evolution of Analytical Methods for Halogenated Furanones in Drinking Water. The American Water Works Association Water Quality Technology Conference, Salt Lake City, UT. 2000.
162. Gonzalez, A., S. W. Krasner, H. Weinberg, and S. D. Richardson. Solid-Phase Microextraction/Gas Chromatography/Ion Trap Mass Spectrometry for Trace-Level Analysis and Confirmation of Disinfection By-Products in Drinking Water. The 48th ASMS Conference on Mass Spectrometry and Allied Topics. Long Beach, CA. 2000.
163. Pastor, S. J., S. W. Krasner, H. Weinberg, and S. D. Richardson. Investigation of By-Products in Drinking Water Using Solid-Phase Extraction and Gas Chromatography/Mass Spectrometry. The 48th ASMS Conference on Mass Spectrometry and Allied Topics. Long Beach, CA. 2000.
164. Richardson, S. D., A. D. Thruston, Jr., T. V. Caughran, P. H. Chen, T. Poiger, Y. Guo, T. W. Collette, F. G. Crumley, T. L. Floyd, K. M. Schenck, and B. W. Lykins, Jr. Identification of Drinking Water Disinfection By-Products from Ozone, Ozone-Chlorine, and Ozone-Chloramine. The 14th Ozone World Congress, International Ozone Association, Dearborn, MI. 1999.
165. Rice, G., L. K. Teuschler, J. Cohen, C. Moudgal, B. Bruce, P. Murphy, J. C. Lipscomb, R. J. Miltner, S. D. Richardson, and R. M. Clark. Risk Assessment of Complex Mixtures of Disinfection By-Products (DBPs): Methods for Considering Unidentified DBPs. The Second International Conference on The Safety of Water Disinfection: Balancing Chemical and Microbial Risks, sponsored by the International Life Sciences Institute, Washington, D.C. 1999.
166. Kryak, D. D., F. W. Schaefer, III, M. Ware, T. Krishnamurthy, and S. D. Richardson. Species and Genus Differentiation of Parasites (*Giardia* and *Cryptosporidium*) by MALDI-Mass Spectrometry. International Symposium on Waterborne Pathogens. Milwaukee, WI. 1999.
167. Richardson, S. D., T. V. Caughran, T. Poiger, Y. Guo, and F. G. Crumley. Identification of Polar Drinking Water Disinfection By-Products Using LC/MS. The American Chemical Society Conference. Anaheim, CA. 1999.
168. Caughran, T. V., S. D. Richardson, A. D. Thruston, Jr., P. H. Chen, T. W. Collette, and T. L. Floyd. Identification of New Drinking Water Disinfection By-Products Formed in the Presence of Bromide. The American Chemical Society Conference. Anaheim, CA. 1999.

169. Weinberg, H. S., S. W. Krasner, S. D. Richardson, and R. Sangaiah. Current Research into the Occurrence of New Disinfection By-Products in Drinking Water. The American Chemical Society Conference. Anaheim, CA. 1999.
170. Wong, C. S., A. W. Garrison, and S. D. Richardson. Enantiomeric Composition of Chiral Haloacetic Acid and Haloacetonitrile Disinfection By-Products in Drinking Water. The American Chemical Society Conference. Anaheim, CA. 1999.
171. Krishnamurthy, T., S. D. Richardson, D. D. Kryak, M. Ware, and F. W. Schaefer, III. MALDI-MS Analysis of Pathogens (Cryptosporidium and Giardia) in Drinking Water Sources. The 47th ASMS Conference on Mass Spectrometry and Allied Topics. Dallas, TX. 1999.
172. Caughran, T. V., S. D. Richardson, F. G. Crumley, and T. Poiger. Does Micro LC/MS Offer Advantages Over Conventional LC/MS in Identifying Disinfection By-Products? The 47th ASMS Conference on Mass Spectrometry and Allied Topics. Dallas, TX. 1999.
173. Chen, P. H., S. D. Richardson, A. D. Thruston, Jr., S. W. Krasner, and G. Majetich. Investigations into the GC/MS Decomposition of Tribromonitromethane in Drinking Water Disinfection By-Product Analyses. The 47th ASMS Conference on Mass Spectrometry and Allied Topics. Dallas, TX. 1999.
174. Richardson, S. D. Identification of Drinking Water Disinfection By-Products from Ozone, Chlorine Dioxide, Chloramine, and Chlorine. International Conference on 'Disinfection By-Products: The Way Forward'. Cambridge, England. 1998.
175. Monarca, S., S. D. Richardson, and A. D. Thruston, Jr. Studies on Mutagenicity and By-Product Formation in River Waters Disinfected with Peracetic Acid. The European Environmental Mutagen Society Conference. Salzburg, Austria. 1998.
176. Thruston, A. D., Jr., S. D. Richardson, T. L. Floyd, and S. Monarca. Identification of Peracetic Acid and Chlorine Dioxide Disinfection By-Products in Drinking Water. The 46th ASMS Conference on Mass Spectrometry and Allied Topics. Orlando, FL. 1998.
177. Guo, Y., S. D. Richardson, and T. V. Caughran. Identification and Mechanistic Studies of Drinking Water Disinfection By-Products. The American Chemical Society Conference. Boston, MA. 1998.
178. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, T. V. Caughran, K. S. Patterson, and B. W. Lykins, Jr. Identification of Disinfection By-Products and Contaminants in Drinking Water. The 7th Annual Meeting of the International Society of Exposure Analysis. Research Triangle Park, NC. 1997.
179. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, K. S. Patterson, and B. W. Lykins, Jr. Multispectral Identification of Ozonation By-Products in Drinking Water. The 43rd ASMS Conference on Mass Spectrometry and Allied Topics. Atlanta, GA. 1995.
180. Thruston, Jr., A. D., S. D. Richardson, T. W. Collette, K. S. Patterson, and B. W. Lykins, Jr. Identification of Brominated Organics in Ozonated Drinking Water. The 43rd ASMS Conference on Mass Spectrometry and Allied Topics. Atlanta, GA. 1995.
181. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, K. S. Patterson, J. C. Ireland, and B. W. Lykins, Jr. Multispectral Identification of Drinking Water Disinfection By-Products Formed by TiO<sub>2</sub>/UV Treatment. The 42nd ASMS Conference on Mass Spectrometry and Allied Topics. Chicago, IL. 1994.

182. Richardson, S. D., A. D. Thruston, Jr., T. W. Collette, K. S. Patterson, and B. W. Lykins, Jr. Multispectral Identification of Chlorine Dioxide Disinfection By-Products in Drinking Water. The 41st ASMS Conference on Mass Spectrometry and Allied Topics. San Francisco, CA. 1993.
183. Richardson, S. D., A. D. Thruston, Jr., and T. W. Collette. Multispectral Identification of Brominated Organic By-Products Formed by Ozonation of Natural Waters. The 40th ASMS Conference on Mass Spectrometry and Allied Topics. Washington, D.C. 1992.
184. Richardson, S. D., J. M. McGuire, A. D. Thruston, Jr., and G. L. Baughman. Application of Liquid SIMS MS/MS to the Analysis of Sulfonated Azo Dyes. The 39th ASMS Conference on Mass Spectrometry and Allied Topics. Nashville, TN. 1991.

### **Other Participations and Responsibilities**

- Participated in EPA STAR Grants Drinking Water Program Review Meeting. Washington, D.C. 1998. (Invited).
- Participated in EPA Drinking Water Research Planning Retreat (for determining EPA's long-term research strategy). RTP, NC. 1998. (Invited).
- Participated in EPA Disinfectants/Disinfection By-Products Exposure Research Planning Workshop. Joint effort by the Office of Water and the Office of Research and Development to identify gaps in knowledge and plan exposure related research for disinfectants and disinfection By-Products. Research Triangle Park, NC. 1997. (Invited).
- Appointed as NERL-Athens representative to participate in meeting with Oak Ridge National Laboratory to discuss potential collaborations in the area of analytical chemistry/mass spectrometry. 1996.
- Appointed as one of two NERL-Athens representatives to participate in Analytical Chemists meeting with Dr. Robert Huggett, Director of the Office of Research and Development (ORD), to discuss ORD's goals and objectives in analytical chemistry. 1997.
- Participated in NERL Long-range Research Planning Session, Cincinnati, OH. 1999. (Invited).
- Participant in EPA-ORD Workshop for the prioritization of drinking water disinfection by-products for future health effects studies. 1997.
- Served on NERL-Athens panel to establish a Laboratory Operating Procedure for the Use of National Research Council (NRC), National Network for Environmental Management Studies (NNEMS), and the Oak Ridge Institute of Science & Engineering (ORISE) research participation programs. 1996.

### **Technical Assistance**

- Assisted the State of Vermont (Department of Health) in the identification of drinking water DBPs and other contaminants in a new human epidemiologic study. 2007-2009.

- Assisted Northeast Health District (Georgia) in the identification of drinking water contaminants suspected in a cancer cluster. 2003.
- Assisted EPA Region 9 researchers in the identification of an unknown drinking water contaminant suspected in a childhood cancer cluster. 2000-2001.
- Contributed to the identification of potentially hazardous materials in well water (pollutants and their hydrolysis products) suspected in childhood cancers in New Jersey. 1996-1997.
- Assist researchers from academia, government, and industry in questions related to drinking water disinfection and in the identification of important pollutants.