

Curriculum Vitae

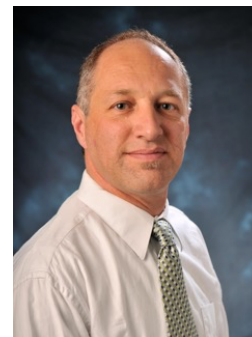
KARL G. LINDEN

Mortenson Prof. in Sustainable Development
Dept. of Civil, Environmental, and
Architectural Engineering
University of Colorado Boulder
Boulder, CO 80309 USA

Phone (303) 492-4798
Skype karl.linden
Twitter @waterprof
Web <http://ceae.colorado.edu/klinden/>
E-mail karl.linden@colorado.edu

Biography

Karl G. Linden is a Professor of Environmental Engineering and the Mortenson Professor in Sustainable Development at the University of Colorado Boulder, USA. He has a BS from Cornell University in Agricultural and Biological Engineering and an MS and PhD from University of California at Davis in Environmental Engineering. He teaches classes on UV Processes in Environmental Systems, Sustainable Water Reuse, and Water Sanitation and Hygiene. Dr. Linden's research investigates sustainable implementation of water and sanitation technologies in developing countries, novel water and wastewater treatment systems, including advanced and innovative UV systems; the efficacy of UV and ozone disinfection for inactivation of pathogens; and the use of UV and advanced oxidation processes for the degradation of organic and other emerging contaminants in water and wastewater.



Dr. Linden is a consultant to the World Health Organization for revising the Guidelines for Drinking Water Quality and a member of the WHO Water Quality Technical Advisory Group. He is an associate editor of Journal of the American Water Works Association, serves as Trustee of the Water Science and Research Division of the AWWA and Board member of the AEESP. He was 2013-2016 President of the International Ultraviolet Association (IUVA), was named a 2013-2014 Fellow of the Australian Water Recycling Centre of Excellence, received the 2013 Pioneer Award in Disinfection and Public Health from the Water Environment Federation and was the WaterReuse Association's 2014 WaterReuse Person of the Year. Dr. Linden is the recipient of both the 2019 AEESP Walter J Weber Jr. Frontier in Research Award and the 2019 Water Research Foundation Dr. Pankaj Parekh Research Innovation Award and in 2020 he was awarded the Borchardt-Glysson Water Treatment Innovation Prize and The Clarke Water Prize. Linden served as the 2019-2020 President of the Board of the Association of Environmental Engineering and Science Professors (AEESP).

Education

Ph.D., Civil and Environmental Engineering, University of California, Davis. March 1997.
"UV Disinfection: Estimating Effective Germicidal Dose in Low and Medium Pressure UV Systems", Advisor: Jeannie L. Darby.

Master of Science, Civil and Environmental Engineering, University of California, Davis.
March 1993. Advisor: Jeannie L. Darby.

Bachelor of Science, Agricultural and Biological Engineering, Cornell University, Ithaca, NY,
May 1989. Advisor: William J. Jewell.

Areas of Specialization

Teaching

Areas of competence include water and wastewater treatment processes (physical, chemical, and biological), water reuse, UV processes in environmental systems, appropriate treatment technologies, environmental aquatic chemistry, ecological environmental engineering, water treatment process laboratory, water chemistry laboratory. Other teaching interests: bioremediation, environmental toxicology, and natural treatment processes. Experience with students diverse in age, ability, and ethnicity.

Research

Research focuses on investigation of alternative disinfectants and advanced oxidation for water and wastewater treatment. Specifically, efficacy of UV irradiation for inactivation of persistent and emerging pathogens; and advanced oxidation processes for the degradation of environmental pollutants of concern in clean and reclaimed water for reuse. Household disinfection for developing communities. Other experience in biological treatment processes, environmental toxicology, industrial wastewater treatment, greywater reuse, streambank stabilization and classification, natural treatment technologies, appropriate treatment technologies, bioremediation techniques, and anaerobic treatment processes.

Honors, Awards, and Distinctions

- Mortenson Professor in Sustainable Development, 2015-present
- NWRI Clarke Water Prize Laureate, 2020
- Borchardt-Glysson Water Treatment Innovation Prize, 2020
- President, Association of Environmental Engineering & Science Professors, 2019-2020
- Dr. Pankaj Parekh Research Innovation Award, Water Research Foundation, 2019
- Walter J Weber Jr. Frontier in Research Award, AEESP, 2019
- Helen and Huber Croft Endowed Professorship, 2011 – 2015
- AEESP/Paul V. Roberts Outstanding Dissertation Award to student Sara Beck (2016)
- Nirit and Michael Shaoul Fellow 2015-6, Tel Aviv University
- August-Wilhelm Scheer Professor, Technical University of Munich 2016
- Peter Wall International Visiting Scholar, University of British Columbia, 2016
- Japan Society for the Promotion of Science Fellow, University of Tokyo 2015-16
- WaterReuse Person of the Year Award, 2014
- Australian Water Recycling Center of Excellence Fellow 2013-2014
- Pioneer Award in Disinfection and Public Health, Water Environment Federation, 2013
- University Research Award, Boulder Faculty Assembly, Univ. of Colorado Boulder 2013
- Best Research Paper Award, International UV Association, 2013
- Best Classic UV Paper Award, International UV Association, 2013
- Faculty Research Award, College of Engineering and Applied Science, 2012
- First Place, Best Student Paper Award to PhD Advisee Austa Parker, International UV Association North American Regional Congress, Washington, DC 2012

- Best Student Paper Award to M.S. advisee Sarah Bounty, International UV Association North American Congress, Toronto, Ontario Canada 2011
- Distinguished Faculty Award, CEAE, Univ of Colorado College of Engineering, 2011
- First Place Poster Award AWWA Water Quality Technol. Conference, Phoenix AZ, 2011
- Liebman Faculty Fellow, University of Colorado School of Engineering, 2008 – 2010
- Best Paper of the Year, Journal AWWA 2010. “Demonstrating 4-log Adenovirus Inactivation in a MP Ultraviolet Disinfection Reactor”, *Journal AWWA*, 101 (4) 90+
- Research Development Award, University of Colorado, CEAE Department, 2009
- Best Student Paper Award to Ph.D. advisee Anne C. Eischeid, Water Quality Technology Conference, AWWA, Cincinnati, OH 2008.
- RMIT International Fellow – Royal Melbourne Institute of Technology, Australia 2007-08
- 2nd Place Best Doctoral Dissertation for Ph.D. advisee Erik Rosenfeldt, AWWA 2008
- Klein/Stansell Family Distinguished Research Award, Pratt School of Engineering, 2004
- John-Kelly C. Warren Faculty Scholar, Pratt School of Eng., Duke University 2001-2005
- Switzer Environmental Foundation Leadership Fellow: 2001-2003
- National Science Foundation New Century Scholar: 1998
- UNC-Charlotte Junior Faculty Fellowship - 1998
- Trojan Technologies UV Fellow, 1995-96
- Switzer Foundation Environmental Fellowship recipient, 1993-94
- Chancellors Teaching Fellowship, UC Davis, 1994
- USDOE, Graduate Assistance in Areas of National Need - Civil Engineering, 1993-94
- Malcolm Stacey Fellowship, UC Davis, 1993-94; 1994-95
- Fellow, Professional Studies Program in India, UC Berkeley, 1991-92
- National Science Foundation Research Experience for Undergraduates, 1988

Professional Experience

Academic

June 2015 – Present. Mortenson Professor in Sustainable Development, Department of Civil, Environmental and Architectural Engineering, University of Colorado Boulder, Boulder, CO.

July 2011 – June 2015. Helen and Huber Croft Endowed Full Professor, Department of Civil, Environmental and Architectural Engineering, University of Colorado Boulder, Boulder, CO.

January 2008 – 2011. Professor, Department of Civil, Environmental and Architectural Engineering, University of Colorado Boulder, Boulder, CO.

April 2009 – 2011. Associate Director of Education and Research, Mortensen Center in Engineering for Developing Communities, University of Colorado Boulder, CO.

July 2005 – December 2007. Associate Professor with Tenure, Department of Civil and Environmental Engineering, Pratt School of Engineering, Duke University, Durham, NC

August 2006 – December 2006. Visiting Professor, University of Colorado at Boulder, Boulder CO, (host: Prof. R. Scott Summers)

January 2001 – June 2005. John-Kelly C. Warren Assistant Professor, Department of Civil and Environmental Engineering, Pratt School of Engineering, Duke University, Durham, NC

July 1999 – 2001. Assistant Professor, Department of Civil and Environmental Engineering, School of Engineering, Duke University

September – December 2003. Visiting Professor, EAWAG, Swiss Federal Institute for Environmental Science and Technology, Dübendorf, Switzerland (with Dr. Urs von Gunten)

March – August 2003. Visiting Professor, Clinical Institute for Hygiene and Medical Microbiology, and the Institute for Medical Physics and Biostatistics, University of Vienna, Austria (with Prof. Regina Sommer and Dipl.-Ing. Alexander Cabaj)

February 2001 – Present. Graduate Faculty, Department of Environmental Science and Engineering, School of Public Health, University of North Carolina at Chapel Hill

August 1997 – June 1999. Assistant Professor, Department of Civil Engineering, University of North Carolina at Charlotte

January - August 1997. Lecturer, Department of Civil Engineering, University of North Carolina at Charlotte

June 1990 - June 1991, April 1992 – December 1996. Research Assistant, Department of Civil and Environmental Engineering, UC Davis

September 1992 – March 1995. Teaching Assistant, Department of Civil and Environmental Engineering, UC Davis

September 1991 – February 1992. UC Berkeley Fellow, Peoples Science Institute, Dehra Dun, India

Consulting

January 1998 – Present. Engineering Consultant: Black and Veatch, Montgomery Watson Harza, US EPA, Cadmus Group, Malcolm Pirnie, Hazen and Sawyer, Carollo Engineers, Colorado Department of Public Health and Environment, Dow Water, Brown and Caldwell, Tetra Tech.

January 2008-2011. Remote Light Inc. Chair – UV Technology Committee

February – April 1993. Project Engineer, Larry Walker and Associates, Davis, CA

April – September 1990. Project Engineer, Microgen Corporation, Ithaca, NY

Engineer-In-Training Certificate; License XE095615, California; February 1995

Professional Affiliations

American Society of Civil Engineers
American Water Works Association
Association of Environmental Engineering and Science Professors
International Water Association
International Ultraviolet Association
American Chemical Society

Teaching Experiences

University of Colorado at Boulder (Professor)

Water and Wastewater Treatment, CVEN 3424 – Spring 2019, 20, 21

Undergraduate course in fundamentals of water and wastewater treatment, from theory to design. Upper level elective.

Water and Sanitation in Developing Communities, CVEN 4969 – Spring 2017, 19, 20, 21

Undergraduate course covering appropriate treatment technologies for applications in water and sanitation in rural and developing communities with a hands-on laboratory.

Fundamentals of Environmental Engineering, CVEN 3414 - Fall 2008, 2009, 2011

Required undergraduate course on science and design of Environmental Engineering processes including water and wastewater treatment, solids waste, air quality, and hazardous waste treatment.

Water Reuse, CVEN 5594 – Spring 2009, 2011, 2014, 2018

Advanced graduate course focusing on the social, political, and technical aspects of implementing water reuse.

UV Processes in Environmental Systems, CVEN 5604 – Fall 2006, Spring 2010, 2015

Elective course for advanced graduate students interested in photolysis and oxidation in water and wastewater, including disinfection and advanced oxidation processes.

Water Sanitation and Hygiene (WASH), CVEN 5969 – Fall 2008-2010, 2011, 2013-2015

Graduate course in the Engineering for Developing Communities program covering appropriate treatment technologies for applications in water, air and sanitation in rural and developing communities.

Environmental Engineering Senior Design, CVEN 4434/5434 – Spring 2013

Senior Capstone Design, focusing on design projects over the complete design process, including entry into national competitions.

Duke University (Assistant/Associate Professor)

Introduction to Engineering, EGR 010 – Spring 2001, 2002, 2004

Introduction to environmental engineering for freshmen Pratt School of Engineering Students, Team-taught with Joe Nadeau

Environmental Engineering, CEE 124L - Fall 1999

Senior level undergraduate course on science and design of water and wastewater treatment processes, solids waste handling, air quality, and hazardous waste treatment

Chemistry and Microbiology for Environmental Engineers, CEE 120L – Fall 2000 - 2002

Required for undergrad environ. eng. majors integrating research and model lab exercises

Physical and Chemical Treatment Processes, CEE 241 – Fall 2000, 2002, 2004, Spr 2006

Core graduate level science and design course guided toward open-ended problem solving utilizing fundamentals learned in class

Advanced Water Treatment Laboratory, CEE 265.2L - Fall 2001, Fall 2007

Elective graduate laboratory course on treatment of emerging contaminants with advanced treatment technologies (membranes, GAC, UV oxidation, others)

UV Processes in Environmental Systems, CEE 265L/269 – Spring 2000, 2004, Fall 2005

Elective course for advanced graduate students interested in photolysis and oxidation

Ecological Environmental Engineering, CEE 265L – Spring 2005

Elective course for advanced graduate students interested in natural/alternative treatment systems and water sanitation issues relevant to developing countries

University of North Carolina at Charlotte (Assistant Professor)

Environmental Engineering Laboratory, CEGR 3155 - Fall 1997, 1998

Undergraduate course – labs for water and wastewater treatment operations and processes.

Systems and Design, CEGR 3201 - Fall 1997, 1998

1/3 semester module on Environmental Systems Optimization emphasizing calculus, graphical and linear programming solutions to environmental systems optimization problems.

Water/Wastewater Engineering, CEGR 4142 - Spring 1997, 1998, 1999

Upper level undergraduate elective course on science and design of water and wastewater treatment processes including physical, chemical, and biological treatment.

Design of Natural Treatment Systems, CEGR 6892 – Fall 1997

Organized and led independent study class with 4 students on wetlands based treatment systems.

Physical Hydrology and the Rosgen Method, CEGR 6892 - Spring 1998

Independent Study on hydrological processes and design of stream restoration based on the methods developed by David Rosgen.

Teaching Evaluations

Consistently ranked at or above the Department and College averages for all evaluation questions in all classes taught.

Research Funding

As Principal Investigator

1. "RAPID: Investigating molecular-level responses of coronavirus under UVC irradiation" National Science Foundation Award 2029695 (\$200,000 6/2020-6/2021)
2. "Defining the emerging pedagogy around global engineering", Workshop, National Science Foundation Award 2022861 (\$49,896 8/2020-8/2021)
3. "UV Advanced Oxidation of Industrial Groundwater Contaminants: The Key Role of Nitrate as •OH Sensitizer and Scavenger" National Science Foundation-BiNational Science Foundation (NSF-BSF) Award 1931168 (\$340,000 6/2020-6/2021) Linden PI with Co-PI Y. Lester, Azrieli College of Engineering, Jerusalem, Israel
4. "NAWI: National Alliance for Water Innovation, Support for Road Mapping Process with Master Cartographers" Department of Energy via LBNL Contract 7536002 under prime contract DE-AC02-05CH11231 (\$202,000, 6/20-5/21) Linden PI, Ryan and Hernandez Co-PIs.
5. "Concentrated Solar Heating: Soil/Sediment Remediation Tech Development" Chevron Award CW1537721 (\$100,000, 12/2019-12/2021) Linden PI
6. "Application of UV LEDs for control of opportunistic pathogens in building system water utilizing non-traditional harvested water sources" Water Research Australia WaterRA 3045/19 (\$80,000 AUD, 1/2020-12/2020) Linden PI, with Co-PI D. McCarthy Monash Univ. Melbourne, Australia
7. "Distributed UV LEDs for combined control of fouling of drip emitters and disinfection during irrigation with reclaimed wastewater effluent", US-Israeli Binational Agricultural Research and Development Fund (BARD) Project IS-5130-18 (\$310,000, 10/18-9/21) Linden and Friedler PI's
8. "Sustainable WASH Systems Learning Partnership". US Agency for International Development (\$15.3M, 9/16 – 9/21) Linden PI, Javernick-Will Co-PI.
9. "Coupled Oxidant and Ceramic Membrane Processes for Decreased Biofouling and Enhanced Flux in Water Reclamation Applications", National Science Foundation IUCRC MAST Center, University of Colorado. (\$210,000, 2017-2020) Linden PI.
10. "Effects of ozonation during ceramic microfiltration of water containing natural organic matter" PWN Technologies, Netherlands (\$98,000, 2018-2019) Linden PI
11. "Effects Directed Toxicology Analysis of Flowback and Produced Water" AirWaterGas Sustainability Research Network (\$60,237 2017-2018) PI: Linden, Co-PI Rosenblum.
12. "Addressing Impacts from Oil and Gas Development: Phase II Research Studies on Wastewater Treatment and Characterization" (\$452,948 2016-2018) PIs: Karl Linden, E. Mike Thurman, Kartik Chandran, and Dan Mueller, \$~\$100K to Linden.
13. "Mitigating the environmental impacts of Natural Gas: Biological Treatment of Hydraulic Fracturing Flowback Water" Environmental Defense Fund and Sloan Foundation, (\$100,000 7/16 – 12/18) Linden PI

14. “Biological Treatment of Hydraulic Fracturing Flowback Water” Environmental Defense Fund, Proposal 15-09-0165 (\$12,000 7/15 – 12/15) Linden PI
15. “Ultraviolet Light Disinfection of Drinking Water Using Light Emitting Diodes” Zodiac Water & Waste Aero Systems (\$200,000, 9/1/15 – 8/31/18) Linden PI
16. “Alaska Water and Sewer Challenge - Phase 3 – Prototype Development and Pilot Testing” University of Alaska Anchorage, State of Alaska (prime) (\$120,000, 12/15 – 6/17) Linden PI
17. Reinvent The Toilet Challenge: Solar Biochar Toilet - Supplement” Bill & Melinda Gates Foundation, (\$1,002,642, 10/1/13 – 08/31/15) Linden, K.G. (PI), Weimer, A. and Summers R.S. (Co-I) [Total funding \$1,780,351] Grant #OPP1065047
18. Reinvent The Toilet Challenge: Solar Biochar Toilet” Bill & Melinda Gates Foundation, (\$777,709, 9/1/12 – 12/31/13) Linden, K.G. (PI), Weimer, A. and Summers R.S. (Co-I)
19. “Demonstrating Advanced Oxidation Technologies/Biofiltration on Pharmaceutical Removal in wastewater” Water Environment Research Foundation U2R11, (\$190,000, 3/12 – 4/14) Linden, K.G. (PI)
20. “Development of Validation Factors for Possible Low-Wavelength Biases in Assessing UV Inactivation of Cryptosporidium” Water Research Foundation 4421 (\$125,000, 1/12 – 12/13) Linden K.G. (PI)
21. “Guidance Document for Testing Medium Pressure UV Inactivation of Viruses” Water Research Foundation 4376 (\$441,500, 10/11 – 6/14) Linden K.G. (PI)
22. “IRES: Toward Sustainable Water and Sanitation Infrastructure” National Science Foundation OISE - 1065050 (\$149,384, 4/11 - 9/14) Linden K.G. (PI)
23. “Advanced Oxidation and Transformation of Organic Contaminants” Water Research Foundation 4241, (\$785,994, 1/11 – 4/14) Linden K.G. (PI), von Gunten, U. (Co-PI)
24. “Investigating Underlying Mechanisms behind the Extreme Resistance of Adenoviruses to UV Disinfection” National Science Foundation *CBET-0933560* (\$397,281 9/09 – 3/13) Linden K.G. (PI), Hernandez, M. (Co-PI)
25. “Sanitation Marketing and Business Opportunities in Developing Countries” Laird Norton Family Foundation, (\$9,000, 2011) Linden K.G. (PI)
26. “Ozone Testing for Virus Inactivation at the Eastern Wastewater Treatment Plant”, Melbourne Water 1546757, Australia (\$207,658 1/10-6/11), Linden K.G. (PI)
27. “Partnerships in Sustainability: Working with Partners in Peru to Enhance Local Water Projects” Office for University Outreach, University of Colorado-Boulder (\$10,000, 2009-2011) Linden K.G. (PI)
28. “Photochemical Fate Of Oil Dispersants Used in The Gulf Oil Spill clean -up” National Science Foundation RAPID Program *CBET-1043818* (\$82,319 7/10 – 1/12) Linden K.G. (PI), Rosario, F. (Co-PI)
29. “Characterization and Disinfection of Greywater using ozone, UV and Chlorine” Carollo Engineers/San Francisco Public Utilities Commiss. (\$25,500 8/10 – 3/11) Linden K.G. (PI)

30. "Water Reuse 2030" WaterReuse Foundation (\$296,954, 2/09 – 6/11) Linden K.G. (PI), Drewes, J; Khan S. (Co-PIs)
31. "Fundamental Mechanisms behind the Extreme Resistance of Adenoviruses to UV Disinfection" National Science Foundation SGER. (\$69,484 9/08 – 8/09) Linden K.G. (PI)
32. "Greywater Treatment Utilizing UV-H₂O₂ process" Water Legacy (\$3,000, 9/08 – 1/09) Linden K.G. (PI)
33. "UV-Based Advanced Oxidation Treatment of Pre- and Post-GAC Contacted Water" American Water Works Association Research Foundation (\$100,000, 3/08 – 8/09) Linden, K.G. (PI)
34. "Impact of UV Location and Sequence on Byproduct Formation" American Water Works Association Research Foundation (\$436,000, 10/07 – 1/10) Linden K.G. (PI), Weinberg H. (UNC), Mitch W. (Yale) (Co-PIs)
35. "Enhanced Disinfection of Adenoviruses with UV Irradiation" WaterReuse Foundation Unsolicited Project (\$168,692, 2/07 – 3/09), Linden K.G. (PI), Thurston-Enriquez J. (USDA) (Co-PI)
36. "Presence, Fate, and Treatability of Estro- and Androgenic Contaminants in Wastewater and Biosolids" US EPA Office of WW Management (\$100,000, 5/06 – 5/08) Linden K.G. (PI), Kullman, S.W. (Co-PI).
37. "Innovative Technologies for Treatment of Reclaimed Water" WaterReuse Foundation (\$460,000, 1/06-12/08) Linden K.G. (PI), Salveson, A., Thurston-Enriquez, J. (Co-PIs)
38. "Pulsed UV versus Low to Medium Pressure UV: Evaluation of Drinking Water Treatment Efficiency" US EPA (\$200,000, 9/04-3/08) Linden, K.G. (PI)
39. "UV Disinfection Byproduct Testing" CH2M Hill/Greater Cincinnati WaterWorks (\$16,555, 5/05 – 9/05) Linden K.G. (PI), Reckhow D. (Co-PI).
40. "Impact of UV and UV Advanced Oxidation Processes on Toxicity of Endocrine Disrupting Compounds in Water" American Water Works Association Research Foundation, (\$150,000, 2/03-7/06) Linden, K.G. (PI), Kullman, S.
41. "Impact of UV disinfection on chlorine residuals" University of Toronto (AwwaRF sub agreement) (\$30,000, 7/04-6/05), Linden, K.G. (PI)
42. "Advanced Oxidation Processes for the Treatment of Candidate Contaminant List (CCL) Chemicals" US EPA Office of Water, Cooperative Agreement, (\$300,000, 9/01 – 8/06) Linden, K.G. (PI), Sharpless, C., Suffet, I.H.
43. "Effectiveness of UV Irradiation for Pathogen Inactivation in Surface Waters" US EPA Science To Achieve Results Program, (\$525,000, 9/01 – 10/05) Linden, K.G. (PI), Sobsey, M.D.
44. "Development of an on-line Fluence Meter" KIWA Netherlands, (\$80,000, 5/03-5/04) Linden, K.G. (PI), Sharpless, C.
45. "Innovative technologies for long term compliance with microbial water quality standards", Malcolm Pirnie Inc./Cincinnati Water Works, (\$105,000 3/1/01 – 8/31/02) Linden, K.G.

(PI) Note: Received the Engineering Excellence award in the Research category from the American Council of Engineering Companies (ACEC) of Ohio.

46. "Innovative UV Technologies to Oxidize Organic and Organoleptic Chemicals" American Water Works Association Research Foundation/US Environmental Protection Agency, (\$425,000 1/1/00-12/31/03) Linden, K.G. (PI), Andrews, S., Atasi, K., Bolton, J., Suffet, I.H.
47. "Fate and persistence of pathogens subjected to disinfection", Water Environment Research Foundation, (\$576,031 1/4/99 – 12/3/03) Linden, K.G. (PI), Sobsey, M.D., and J.D. Oliver.
48. "Disinfection efficiency and dose measurement for medium pressure and pulsed-UV disinfection systems" American Water Works Association Research Foundation, (\$224,780 11/1/98 – 3/31/02) Linden, K.G. (PI), Mofidi, A.A.
49. "UV disinfection of filtered water supplies: Water Quality Impacts on MS2 Dose-Response Curves", Camp Dresser & McKee Inc, (\$86,400, 4/01 – 3/02) Linden, K.G. (PI)
50. "UV Irradiation for Treatment of Taste and Odor Causing Compounds in Water", Camp Dresser & McKee Inc, (\$15,000, 8/01 – 3/02) Linden, K.G. (PI)
51. "Support for Research Assistant Shanshan Jin, Leach fund, Department of Civil and Environmental Engineering, Duke University, (\$6,754, 5/01-8/01) Linden, K.G. (PI)
52. "Comparison of performance and operations and maintenance costs of three of biological nutrient removal schemes at a full-scale wastewater treatment facility in Charlotte NC", North Carolina Water Resources Research Institute – Urban Water Consortium, (\$71,989, 9/1/98 – 8/31/00) Linden, K.G. (PI)
53. "Performance and testing of trickling filter and submerged fixed bed at the Frito Lay Packaging Plant in Charlotte, NC" NSW Corporation (\$31,000, 11/4/98 – 6/25/99) Linden, K.G., (PI)
54. "Optimization of the NSW biotower at the Coca-Cola Bottling Plant in Charlotte NC", NSW Corporation, (\$16,000, 6/15/98 – 12/31/98) Linden, K.G. (PI)
55. "Application of morphologic characterization to urban watersheds for developing stream restoration techniques", City of Charlotte StormWater Services, (\$63,929, 9/1/97 – 8/30/00) Linden, K.G. (PI), Bowen, J.D. and C.J. Allan
56. "Investigation of byproduct formation following high intensity UV irradiation for disinfection of water and wastewater", UNC Charlotte Junior Faculty Research Fellowship, (\$3,500, 5/15/98 – 8/15/98) Linden, K.G. (PI)
57. "Estimating germicidal UV dose from medium pressure UV disinfection systems using a chemical actinometry approach", UNC Charlotte Faculty Research Support Grant (\$5,000, 7/1/97 – 6/30/98) Linden, K.G. (PI)
58. "Support for travel funds to visit two potential industry sponsors" College of Engineering Small Grants Proposal (\$1,500, 1997). Linden, K.G. (PI)
59. "Support for travel funds to NSF Regional Grants Conference in Athens, GA" College of Engineering Small Grants Proposal (\$450, 1997). Linden, K.G. (PI)

60. “Support for travel to Edmonton Canada to present paper at annual joint ASCE/CSCE environmental engineering conference”, International Travel Grant, UNC-Charlotte (\$400, 1997) Linden, K.G. (PI)

As Co-Principal or Senior Investigator (\$ is amount to Linden unless noted)

1. “USAID Accelerating Peri-Urban Water and Sanitation Services in Kasai Oriental and Lomami Provinces” USAID via Chemonics (prime) Award 72066020C00001 (~\$3M to UCB, 9/20-9/25) Linden Co-PI with Evan Thomas (UCB PI).
2. Mechanisms of UV inactivation of viruses for tailored disinfection applications. National Science Foundation, (\$151,100, 1/16-08/18) CBET 1512616: Co-PI, with University of Texas El Paso, PI Rodriguez.
3. Design of Risk Reducing, Innovative Implementable Small System Knowledge (DeRISK) Center”, US Environmental Protection Agency, Summers (PI) \$4,100,000, 9/1/14-8/30/18 Linden (Co-PI) Share \$776,244
4. “SRN: Routes to Sustainability for Natural Gas Development and Water and Air Resources in the Rocky Mountain Region”, National Science Foundation, Ryan (PI). \$12,000,000, 1/1/13-12/31/18 (Linden Share ~\$350,000)
5. “Assessing Odor & Odor Control for the RTTC” Duke University, Prime: Bill & Melinda Gates Foundation (\$140,000, 1/15 – 6/17) Linden Co-PI OPP1119852
6. GAANN - Department of Education Senior Faculty PhD Fellowship Program “Toward Engineering Resilience” (2015-2020). Linden Senior Faculty, Total 40 student years of funding, Provides funding for 2 Linden students
7. “Evaluation of cVOC Removal Efficiencies by Various Technologies”, Water Research Foundation (ARCADIS, Prime) Cotton (PI), Linden Co-PI. Linden Share \$150,000
8. “Enhanced Self Sufficiency for Water with Robust UV LED Disinfection” Office of Naval Research BAA 11-007, Subcontract from Sensor Electronic Technologies (SET) (\$125,000, 3/12 – 2/14)
9. “The Science and Technology of Dispersants as Relevant to Deep Sea Oil Releases: Research Consortia” Gulf of Mexico Research Institute (GRI) (\$11,400,000 total, \$222,000 to Linden, 1/12 – 12/14) Linden, K.G. (Co-PI), John, V. (Tulane-PI)
10. “Demonstrating Advanced Oxidation Technologies on Pharmaceutical Removal Downstream of Biological Treatment” Water Environment Research Foundation INFR 6SG09 (\$37,000, 1/10 – 5/11) Linden K.G. (Co-PI)
11. “Constructed Wetlands and UV Disinfection for Wastewater Treatment and Reuse in Small Communities” Multinational Agricultural Research and Development Program, US-Israeli Bi-National Agricultural Research and Development Fund. BARD FG-9502-09 (\$10,000 4/10 – 3/11) Linden K.G. (Co-PI)
12. “Heterogeneous Photocatalytic System for Water Remediation” Eltron Research (NIEHS 1R41ES017575-01), (\$30,000, 8/09 – 4/10) Linden (Co-PI).

13. Workshop: "Ensuring the Sustainable Reuse of Wastewater for Agricultural Irrigation in Semi-Arid Regions" U.S.-Israel Binational Science Foundation, Linden (Co-PI), Zoller (PI) (\$25,000, 2008)
14. "Fate and Effects of Hormones in Waste From Concentrated Animal Feeding Operations" (CAFOS) US EPA STAR, Linden K.G. (Co-PI), Kullman S.W. (PI), Ferrel G. (USGS) (Co-PI), Meyer M. (USGS) (Co-PI) (\$25,000, 6/07 – 5/10)
15. "Superfund Chemicals Impact on Reproduction and Development, Project 7: Microbial and Photolytic Transformations of Superfund Chemicals", Subcontract from Superfund Hazardous Substances Basic Research Center, Dr. DiGiulio, Duke University, (\$1,400,000 [Shared equally with A. Schuler], 4/05 – 4/09).
16. "Predicting Gene Flow from Transgenic Pine Pollen", US Department of Agriculture, Linden K.G. (Co-PI), Williams, C. (PI), Katul, G. (Co-PI) (\$196,000, 9/05-8/08).
17. "Bioanalytical Analysis and Reproductive Effects of Environmental Endocrine Disruptors at Concentrated Animal Feed Operations Affecting North Carolina River Waters" Linden, K.G. (co-PI) Kullman, S.W. (PI) NC Water Resources Research Institute (\$35,000 [Shared with Kullman], 4/05 – 3/06)
18. "DNA repair of UV irradiated Giardia lamblia cysts following low and medium pressure UV disinfection" National Science Foundation, BES - 0302609, Linden, K.G. (Co-PI), Gwy-Am Shin (PI), (\$110,355, 7/03 – 8/06)
19. "Characterization of Microbial Populations in a Membrane Bioreactor with Powdered Activated carbon for Drinking Water Treatment", Lord Foundation, (\$12,500 5/1/03 – 2/23/04) Linden, K.G. (Co-PI), Schuler, A.J. (PI)
20. "UV Water Treatment with Short Wavelength Surface Discharge Lamps", Phase II Small Business Innovations in Research, National Science Foundation, Subcontract from Phoenix Science and Technology, (\$83,500, 1/03-12/06)
21. "UV Water Treatment with a Innovative Sparker Technology", Phase I Small Business Innovations in Research, National Science Foundation, Subcontract from Phoenix Science and Technology, (\$28,527, 6/03-5/04)
22. "Superfund Chemicals Impact on Reproduction and Development, Project 5: Biological and chemical transformations and subsequent toxicity implications for contaminants", Subcontract from Superfund Hazardous Substances Basic Research Center, Dr. DiGiulio, Duke University, (\$110,000, 2/02 – 3/05)
23. "Hydrodynamic characterization of UV reactors", American Water Works Association Research Foundation, (\$123,000 3/1/01 – 2/28/04) Linden, K.G. (Co-PI), Ducoste, J. Civil Engineering, NC State University (PI)
24. "Development of Toxicity Bioassays for Pharmaceuticals in Reclaimed Water", Water Environment Research Foundation, (\$23,000, 10/01 – 10/05) Linden, K.G. (Co-PI), Kullman, S. NSOE, Duke University (PI)
25. "Inactivation of pathogens by innovative UV technologies", American Water Works Association Research Foundation, Subcontract from University of New Hampshire, (\$85,000 1/1/00 - 12/31/02) Linden, K.G. (Co-PI), Malley, J. UNH (PI)

26. “UV Water Treatment with a Short Wavelength Surface Discharge Lamps”, Phase I Small Business Innovations in Research, National Science Foundation, Subcontract from Phoenix Science and Technology, (\$22,500, 6/01-12/01)
27. “Innovative Ultraviolet Light Source for Disinfection of Drinking Water” Phase II Small Business Innovative Research Program, Topic C. Clean Water, US EPA, Subcontract from Phoenix Science and Technology, (\$37,000, 12/01 – 12/02)
28. “Innovative Ultraviolet Light Source for Disinfection of Drinking Water” Phase I Small Business Innovative Research Program, Topic C. Clean Water, US EPA, Subcontract from Phoenix Science and Technology, (\$15,000, 12/00 – 3/01)

Other Funding

1. International Travel Grant to attend and present at IWA 2000, Paris, France. Duke University Office of the Vice Provost, \$750
2. International Travel Grant to attend and present at IWA 2002, Melbourne, Australia. Duke University Office of the Vice Provost, \$750
3. Seed Travel Grant to meet with NSF and WRF officers in Washington DC, April 2008. Dean’s Office, College of Engineering and Applied Science, CU Boulder. \$500

Peer Reviewed Publications

Notes: Names in **Bold** from Linden’s Lab, * indicates Linden is corresponding author; ^ denotes work published prior to academic appointments. ORCID: 0000-0003-4301-7227

1. **Ma, B.**, Gundy, P.M., Gerba, C.P., Sobsey, M.D., ***Linden, K.G.** (2021) UV Inactivation of SARS-CoV-2 across the UVC spectrum: KrCl* excimer, mercury-vapor, and LED sources Applied & Environmental Microbiology, <https://doi.org/10.1128/aem.01532-21>
2. Nelson-Nuñez, J., Mahoney, R.B., Mostafa, S., ***Linden K.G.** (2021) “If you build it will they come? Predicting Individual Uptake of Rural Water Services” (Submitted Aug 2021) Journal of Development Studies
3. **Ma, B.**, **Linden, Y.S.**, Gundy, P.M., Gerba, C.P., Sobsey, M.D., ***Linden, K.G.** (2021) Inactivation of Coronaviruses and Phage Phi6 from Irradiation across UVC Wavelengths. Environmental Science & Technology Letters 8 (5), 425-430
4. **Sitterley, K.A.**, Silverstein, J.A., **Rosenblum, J.**, ***Linden, K.G.** (2021) Aerobic biological degradation of organic matter and fracturing fluid additives in high salinity hydraulic fracturing wastewaters. Science of The Total Environment 758, 143622
5. **Mattos, K.J.**, Eichelberger, L., Warren, J., Dotson, A., Hawley, M., ***Linden, K.G.** (2021) Household Water, Sanitation, and Hygiene Practices Impact Pathogen Exposure in Remote, Rural, Unpipd Communities. Environmental Engineering Science 38 (5), 355-366

6. Thomas, E., Salvinelli, C., Harper, J., MacDonald, L., Klees, R., Platais, G., Javernick-Will, A., **Linden, K.** (2021) A Body of Knowledge and Pedagogy for Global Engineering. *International Journal for Service Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship* Vol. 16, No. 1, pp. 37-57
7. **Vinge, S.L., Rosenblum, J.S., Linden, Y.S., Saenz, A., Hull, N.M., *Linden, K.G.** (2021) Assessment of UV Disinfection and Advanced Oxidation Processes for Treatment and Reuse of Hydraulic Fracturing Produced Water. *ACS ES&T Engineering* 1 (3), 490-500
8. Fisher, R.P., Lewandowski, A., **Yacob, T.W., Ward, B.J., Hafford, L.M., Mahoney, R.B., Oversby, C.J.,** Mejic, D., Hauschulz, D.H., Summers, R.S., ***Linden, K.G.,** Weimer, A.W. (2021) Solar Thermal Processing to Disinfect Human Waste. *Sustainability* 13 (9), 4935
9. **Hull, N.M., *Linden, K.G.** (2021) On applicability of a cell proliferation assay to examine DNA concentration of UV-and chlorine-treated organisms—a rebuttal of Molina et al.(2019). *Management of Biological Invasions* 12 (2), 240-245
10. ***Linden, K.G.** (2020) Striving for a More Diverse and Inclusive Field in Engineering, *Environmental Engineering Science*, 37 (8) 519-520. DI 10.1089/ees.2020.0261
11. Thomas, E., Jordan, E., **Linden, K.,** Mogesse, B., Hailu, T., Jirma, H., Thomson, P., Koehler, J., Collins, G. (2020) Reducing drought emergencies in the Horn of Africa, *Science of The Total Environment*, 727, 138772
12. **Sitterley, K.A., Linden, K.G.,** Ferrer, I., Thurman, E.M. (2020) Desalting and Concentration of Common Hydraulic Fracturing Fluid Additives and their Metabolites with Solid-Phase Extraction. *Journal of Chromatography A*, 1622, 461094. DI 10.1016/j.chroma.2020.461094
13. **Sitterley, K.A., Rosenblum, J., Ruyle, B., Keliher, R., *Linden, K.G.** (2020) Factors impacting electrocoagulation treatment of hydraulic fracturing fluids and removal of common fluid additives and scaling ions. *Journal of Environmental Chemical Engineering*, 8 (3) 103728. DI 10.1016/j.jece.2020.103728
14. ***Linden, K.G.** (2020) Let's Talk: "AEESP Tackles Harassment" *Environmental Engineering Science*, 37 (5) 304-305. DI 10.1089/ees.2020.0057
15. **Valcourt, N.,** Walters, J., Javernick-Will, A., **Linden, K** (2020) Assessing the efficacy of group model building workshops in an applied setting through purposive text analysis. *System Dynamics Review*, 36 (2) 135-157. DI 10.1002/sdr.1657
16. **Pugel, K.,** Javernick-Will, A., Koschmann, M., Peabody, S., **Linden, K.** (2020) Adapting Collaborative Approaches for Service Provision to Low-Income Countries: Expert Panel Results. *Sustainability*, 12 (7) 2612. DI 10.3390/su12072612
17. **Vinge, S.L., Shaheen, S.W.,** Sharpless, C.M., ***Linden, K.G.** (2020) Nitrate with benefits: optimizing radical production during UV water treatment. *Environmental Science-Water Research & Technology*, 6 (4) 1163-1175
18. **Pochiraju, S.S., Linden, K.G.,** Gu, A.Z., **Rosenblum, J.** (2020) Development of a separation framework for effects-based targeted and non-targeted toxicological screening

- of water and wastewater. *Water Research* (170) 115289. DOI 10.1016/j.watres.2019.115289
19. **Ulliman, S.L.**, Korak, J.A., **Linden, K.G.**, Rosario-Ortiz, F.L. (2020) Methodology for selection of optical parameters as wastewater effluent organic matter surrogates. *Water Research*, 170, 115321. DOI 10.1016/j.watres.2019.115321
 20. **Valcourt, N.**, Walters, J., Javernick-Will, A., **Linden, K.**, Hailegiorgis, B. (2020) Understanding Rural Water Services as a Complex System: An Assessment of Key Factors as Potential Leverage Points for Improved Service Sustainability. *Sustainability* 12 (3) 1243. DOI 10.3390/su12031243
 21. **Valcourt, N.**, Javernick-Will, A., Walters, J., **Linden, K.**, (2020) System Approaches to Water, Sanitation, and Hygiene: A Systematic Literature Review. *International Journal of Environmental Research and Public Health*, 17 (3) 702. DOI 10.3390/ijerph17030702
 22. ***Linden, K.G.** (2020) EES/AEESP Moving Forward!. *Environmental Engineering Science* 37 (1) 1-2. DOI 10.1089/ees.2019.0418
 23. **Hull, N.**, **Herold, W.**, ***Linden, K.G.** (2019) UV LED water disinfection: Validation and small system demonstration study. *AWWA Water Science* 1 (4), e1148. *Best Paper for AWWA Water Science Small Systems Publication Award and Best Paper for AWWA Small Systems Division.*
 24. **Mattos, K.**, King, E., Lucas, C., Snyder, E.H., Dotson, A., **Linden, K.G.** (2019) Rainwater catchments in rural Alaska have the potential to produce high-quality water and high quantities of water for household use. *Journal of Water and Health*, Vol. 17, No. 5: 788–800
 25. **Barstow, C.**, Bluffstone, R., Silon, K., **Linden, K.**, Thomas, E. (2019) A Cost-Benefit Analysis of Livelihood, Environmental and Health Benefits of a Large Scale Water Filter and Cookstove Distribution in Rwanda. *Development Engineering*, Vol. 4, 100043.
 26. **Sholtes, K.**, ***Linden, K.G.** (2019) Pulsed and continuous light UV LED: microbial inactivation, electrical, and time efficiency. *Water Research*, Vol. 165, DOI 10.1016/j.watres.2019.114965
 27. **Sholtes, K.**, **Keliher, R.**, ***Linden, K.G.** (2019) Standardization of a UV LED Peak Wavelength, Emission Spectrum, and Irradiance Measurement and Comparison Protocol. *Environmental Science & Technology*, Vol. 53, No. 16, 9755- 9763. DOI 10.1021/acs.est.9b02567
 28. **Olaerts, L.**, Walters, J.P., **Linden, K.G.**, Javernick-Will, A., Harvey, A (2019) Factors Influencing Revenue Collection for Preventative Maintenance of Community Water Systems: A Fuzzy-Set Qualitative Comparative Analysis. *Sustainability*, Vol. 11, No. 13, 3726, DOI 10.3390/su11133726
 29. Woo, H., **Beck, SE**, Boczek, L.A., Carlson, KM, Brinkman, NE, **Linden, KG**, Lawal, OR, Hayes, SL, Ryu, H. (2019) Efficacy of Inactivation of Human Enteroviruses by Dual-Wavelength Germicidal Ultraviolet (UV-C) Light Emitting Diodes (LEDs). *Water*, Vol. 11, fNo. 6, DOI 10.3390/w11061131

30. Westerhoff, P., Boyer, T, **Linden, K.** (2019) Emerging Water Technologies: Global Pressures Force Innovation toward Drinking Water Availability and Quality. *Accounts of Chemical Research*. Vol. 52, No. 5, 1146-1147. DOI 10.1021/acs.accounts.9b00133
31. ***Linden, K.G., Hull, N.,** Speight, V. (2019) Thinking Outside the Treatment Plant: UV for Water Distribution System Disinfection. *Accounts of Chemical Research*. Vol. 52, No. 5, 1226-1233. DI 10.1021/acs.accounts.9b00060
32. Miklos, DB, Wang, WL, **Linden, KG,** Drewes, E, Hubner, U (2019) Comparison of UV-AOPs (UV/H₂O₂, UV/PDS and UV/Chlorine) for TOrC removal from municipal wastewater effluent and optical surrogate model evaluation. *Chemical Engineering Journal*. Vol. 362, 537-547. DI 10.1016/j.cej.2019.01.041
33. **Hull, N.M., Rosenblum, J.S.,** Robertson, C.E., Harris, J.K., ***Linden, K.G.** (2018) Succession of toxicity and microbiota in hydraulic fracturing flowback and produced water in the Denver–Julesburg Basin. *Science of The Total Environment* 644, 183-192
34. **Hafford, L.M., Ward, B.J.,** Weimer, A.W., ***Linden, K.G.** (2018) Fecal sludge as a fuel: characterization, cofire limits, and evaluation of quality improvement measures. *Water Science and Technology* 78 (12), 2437-2448
35. **Hull, N.M., *Linden, K.G.** (2018) Synergy of MS2 disinfection by sequential exposure to tailored UV wavelengths. *Water Research* 143, 292-300
36. **Ulliman, S.L.,** McKay, G., Rosario-Ortiz, F.L., ***Linden, K.G.** (2018) Low levels of iron enhance UV/H₂O₂ efficiency at neutral pH. *Water Research* 130, 234-242
37. **Sitterley, K.A., Linden, K.G.,** Ferrer, I., Thurman, E.M. (2018) Identification of Proprietary Amino Ethoxylates in Hydraulic Fracturing Wastewater Using Liquid Chromatography/Time-of-Flight Mass Spectrometry with Solid-Phase Extraction, *Analytical Chemistry*, 2018, 90(18) 10927-10934, 10.1021/acs.analchem.8b02439
38. Jones, C.H., Shilling, E.G., **Linden, K.G.,** Cook, S.M. (2018) Life Cycle Environmental Impacts of Disinfection Technologies Used in Small Drinking Water Systems. *Environmental Science & Technology* 52 (5), 2998-3007
39. **Ulliman, S.L.,** Miklos, D.B., Hübner, U., Drewes, J.E., ***Linden K.G.** (2018) Improving UV/H₂O₂ performance following tertiary treatment of municipal wastewater. *Environmental Science: Water Research & Technology* 4 (9) 1321-1330
40. Nihemaiti, M., Miklos, D.M., Hübner, U., **Linden, K.G.,** Drewes, J.E., Croué, J.P. (2018) Removal of trace organic chemicals in wastewater effluent by UV/H₂O₂ and UV/PDS (2018) *Water research* 145: 487-497
41. **Yacob, T.W., *Linden, K.G.,** Weimer, A.W. (2018) Pyrolysis of human feces: Gas yield analysis and kinetic modeling (2018) *Waste Management* 79, 214-222
42. Miklos, D.B., Hartl, R., Michel, P., **Linden, K.G.,** Drewes, J.E., Hübner, U. (2018) UV/H₂O₂ process stability and pilot-scale validation for trace organic chemical removal from wastewater treatment plant effluents. *Water Research* 136, 169-179
43. **Beck, S.E.; Hull, N.M.; Poepping, C.; Linden, K.G.** (2018) Wavelength-Dependent Damage to Adenoviral Proteins Across the Germicidal UV Spectrum, *Environmental Science & Technology*, JAN 2 2018, 2018, 52 (1) 223-229, 10.1021/acs.est.7b04602

44. Miklos, D.B., Remy, C., Jekel, M., **Linden, K.G.**, Drewes, J.E., Hübner, U. (2018) Evaluation of advanced oxidation processes for water and wastewater treatment—A critical review. *Water Research* 139: 118-131
45. Ike, I.A., **Linden, K.G.**, Orbell, J.D., Duke, M. (2018) Critical review of the science and sustainability of persulphate advanced oxidation processes. *Chemical Engineering Journal* 338: 651-669 DOI: 10.1016/j.cej.2018.01.034
46. Nelson, K.L., Boehm, A.B., Davies-Colley, R.J., Dodd, M.C., Kohn, T., **Linden, K.G.** (2018) Sunlight-mediated inactivation of health-relevant microorganisms in water: a review of mechanisms and modeling approaches. *Environmental Science: Processes & Impacts* 20 (8), 1089-1122
47. **Rosenblum, J.** Nelson A.W., Ruyle, B., Schultz, M.K., Ryan J.N., ***Linden K.G.** (2017) “Temporal characterization of flowback and produced water quality from a hydraulically fractured oil and gas well” *Science of the Total Environment* 596-597:369-377.
48. Dischinger, S.M., **Rosenblum, J.**, Noble, R.D., Gin, D.L., ***Linden, K.G.** (2017) “Application of a lyotropic liquid crystal nanofiltration membrane for hydraulic fracturing flowback water: Selectivity and implications for treatment” *Journal of Membrane Science* 543, 319-327
49. **Parker AM, Lester Y, Spangler EK**, von Gunten U, ***Linden KG.** (2017) "UV/H₂O₂ advanced oxidation for abatement of organophosphorous pesticides and the effects on various toxicity screening assays." *Chemosphere*. 182: 477-482.
50. **Hull NM, Isola MR**, Petri B, Chan P-S, ***Linden KG.** (2017) "Algal DNA Repair Kinetics Support Culture-Based Enumeration for Validation of Ultraviolet Disinfection Ballast Water Treatment Systems." *Environmental Science & Technology Letters*. 4 (5): 192-196.
51. Garkusheva N, Matafonova G, Tsenter I, **Beck S**, Batoev V, **Linden K.** (2017) "Simultaneous atrazine degradation and E-coli inactivation by simulated solar photo-Fenton-like process using persulfate." *Journal of Environmental Science and Health Part A-Toxic/Hazardous Substances & Environmental Engineering*. 52 (9): 849-855.
52. Silva MP, Lastre-Acosta AM, Mostafa S, McKay G, **Linden KG**, Rosario-Ortiz FL, Silva Costa Teixeira AC. (2017) "Photochemical generation of reactive intermediates from urban-waste bio-organic substances under UV and solar irradiation." *Environmental Science And Pollution Research*. 24 (22): 18470-18478.
53. ***Linden, K. and Murphy J.R.** (2017). Physical Disinfectants. In: J.B. Rose and B. Jiménez-Cisneros, (eds) *Global Water Pathogens Project*, (C. Haas (eds) Part 4 Management of Risk from Excreta and Wastewater) Michigan State University, E. Lansing, MI, UNESCO. Open Source, web published Peer-reviewed review paper.
54. **Rosenblum J.S.**, Thurman E.M., Ferrer I., Aiken, G., ***Linden K.G.** (2017) “Organic Chemical Characterization and Mass Balance of a Hydraulically Fractured Well: From Fracturing Fluid to Produced Water over 405 Days” *Environmental Science & Technology* 51(23), 14006-14015
55. **Beck S.E.**, Ryu H., Boczek L.A., Cashdollar J.L., **Jeanis K.M., Rosenblum J.S.**, Lawal O.R., ***Linden K.G.** (2017) Evaluating UV-C LED disinfection performance and

- investigating potential dual-wavelength synergy. *Water Res.* 109:207-216. doi: 10.1016/j.watres.2016.11.024.
56. **Lester, Y.**, Aga, D.S., Love, N., Singh, R., **Morrissey, I.**, ***Linden, K.** (2016) "Integrative Advanced Oxidation and Biofiltration for Treating Pharmaceuticals in Wastewater" *Water Environment Research*, 88(11):1985-1993
57. **Rosenblum J.S.**, **Sitterley K.**, Ferrer I., Thurman M., ***Linden K.** (2016) "Hydraulic Fracturing Wastewater Pre-Treatment: Coagulation and Flocculation of Denver-Julesberg Produced Waters" *Journal of Environmental Chemical Engineering* 4(2):1978-1984
58. Thurman E.M., Ferrer I., **Rosenblum J.S.**, **Linden K.**, Ryan J.N. (2016) "Identification of Polyethylene and Polypropylene Glycols and Their Carboxylates in Flowback and Produced Water from Hydraulic Fracturing Using LC/QTOF-MS" *Journal of Hazardous Materials* 323:11-17
59. Mostafa, S., Rubinato, M., Rosario-Ortiz, F.L., Linden, K.G. (2016) "Impact of Light Screening and Photosensitization by Surface Water Organic Matter on Enterococcus Faecalis Inactivation" *Environmental Engineering Science*, 33(6):365-373
60. Mestankova, H., **Parker, A.M.**, Bramaz, N., Canonica, S., Schirmer, K., von Gunten, U., ***Linden, K.G.**, (2016) "Transformation of Contaminant Candidate List (CCL3) compounds during ozonation and advanced oxidation processes in drinking water: assessment of biological effects" *Water Research*, 93:110-120
61. **Sholtes, K.A.**, Lowe, K., Walters, G.W., Sobsey, M.D., **Linden, K.G.**, Casanova, L.M. (2016) Comparison of ultraviolet light-emitting diodes and low-pressure mercury-arc lamps for disinfection of water. *Environ. Technol.* 37(17): 2183-2188
62. Leite-Lobo F., Wang H., Huggins T., **Rosenblum J.S.**, **Linden K.G.**, Ren J.Z. (2016) "Low-energy Hydraulic Fracturing Wastewater Treatment via AC Powered Electrocoagulation with Biochar" *Journal of Hazardous Materials* 309:180-184
63. **Beck, S.E.**, **Rodriguez, R.A.**, **Hawkins, M.A.**, Hargy, T.M., Larason, T.C., ***Linden, K.G.** (2016) "Comparison of UV-Induced Inactivation and RNA Damage in MS2 Phage Across the Germicidal UV Spectrum" *Applied and Environmental Microbiology*, 82(5): 1468-1474.
64. **Keen, O.S.**, Love, N.G., Aga, D.S., ***Linden, K.G.**, (2016) "Biodegradability of iopromide products after UV/H₂O₂ advanced oxidation" *Chemosphere*, 144, 989-994, 2016
65. Blackbeard, J., Lloyd, J., Magyar, M., Mieog, J., **Linden, K.G.**, **Lester, Y.** (2016) "Demonstrating organic contaminant removal in an ozone-based water reuse process at full scale" *Environmental Science: Water Research & Technology*, 2, 1, 213-222, 2016
66. Bolton, J.R., Mayor-Smith, I., **Linden, K.G.**, (2015) "Rethinking the Concepts of Fluence (UV Dose) and Fluence Rate: The Importance of Photon-based Units - A Systemic Review". *Photochemistry and Photobiology*, 91(6): 1252-1262
67. ***Linden, K.G.**, **Hull, N.M.**, **Rodriguez, R.A.** (2015) Comment on "UV Disinfection Induces a VBNC State in *Escherichia coli* and *Pseudomonas aeruginosa*". *Environmental Science & Technology* 49 (17): 10750-10751

68. Shin, G-A., **Linden, K.G.** (2015) "Reactivation of *Giardia lamblia* cysts after exposure to low-pressure UV irradiation" *Canadian Journal of Microbiology*, 61(7): 513-516
69. **Sigmon, C.**, Shin, G-A, Mieog, J., ***Linden, K.G.** (2015) "Establishing Surrogate-Virus Relationships for Ozone Disinfection of Wastewater" *Environmental Engineering Science*, 32(6):451-460
70. Singh, R., **Lester, Y.**, **Linden, K.G.**, Love, N., Atilla-Gokcumen, G.E., Aga, D. (2015) "Application of metabolite profiling tools and time-of flight mass spectrometry in the identification of transformation products of iopromide and iopamidol during advanced oxidation" Accepted (February 2015) *Environmental Science & Technology*
71. **Bohrerova, Z.**, **Rosenblum, J.**, ***Linden, K.G.** (2015) "Importance of recovery of *E. coli* in water following ultraviolet light disinfection" *ASCE: Journal of Environmental Engineering* 141(6): 401-409
72. **Lester, Y.**, Thurman, E.M., Ferrer, I., **Sitterley, K.**, Korak, J.A., Aiken, G., ***Linden, K.G.** (2015) "Characterization of fracturing flowback water in Colorado: Implications for water treatment" *Science of the Total Environment* 521-513: 637-644.
73. **Beck, S.E.**, Wright, H.B., Hargy, T.M., Larason, T.C., ***Linden, K.G.** (2015) "Action Spectra for Validation of Pathogen Disinfection in Medium-Pressure Ultraviolet (UV) Systems" *Water Research*, 70:27-37
74. **Keen, O.S.**, Thurman, E.M., Ferrer, I., ***Linden, K.G.** (2014) "Degradation pathways of lamotrigine under advanced treatment by direct UV photolysis, hydroxyl radicals, and ozone". *Chemosphere*. 117:316-323
75. **Barstow, C.K.**, **Dotson, A.D.**, ***Linden, K.G.** (2014) "Assessing point of use ultraviolet disinfection for safe water in urban developing communities" *IWA Journal of Water and Health*, 12(4):663-669
76. Glover, C.M., Mezyk, S.P., **Linden, K.G.** Rosario-Ortiz, F.L. (2014) "Photochemical degradation of Corexit components in ocean water" *Chemosphere*, 111:596-602
77. **Parker, A.M.**, Ferrer, I., Thurman, E.M., Rosario-Ortiz, F.L., ***Linden, K.G.** (2014) "Determination of COREXIT Components used in the Deepwater Horizon Cleanup by Liquid Chromatography-Ion Trap Mass Spectrometry" *Analytical Methods*, 6:5498-5502
78. **Poepping, C.**, **Beck, S.E.**, Wright, H., ***Linden, K.G.** (2014) "Evaluation of DNA Damage Reversal During Medium-Pressure UV Disinfection" *Water Research*, 56: 181-189.
79. **Lester, Y.**, Ferrer, I., Thurman, E.M., ***Linden, K.G.** (2014) "Demonstrating sucralose as a monitor of full-scale UV/AOP treatment of trace organic compounds" *Journal of Hazardous Materials*, 280: 104-110. DOI: 10.1016/j.jhazmat.2014.07.009
80. **Rodriguez, R.A.**, **Bounty, S.H.**, **Beck, S.E.**, **Chan, C.**, **McGuire, C.**, ***Linden, K.G.**, (2014) "Photoreactivation of bacteriophages after UV disinfection: role of genome structure and impacts of UV source" *Water Research* 55, pp 143–149.
81. **Chatterley, C.**, Javernick-Will, A., **Linden, K.G.**, Kawser, A., Laure, B., Mohini, V. (2014) "A qualitative comparative analysis of well-managed school sanitation in Bangladesh" *BMC public health*, Vol. 14, No. 6. Pp. 1-14.

82. **Lester, Y., Yacob, T., Morrissey, I. and *Linden, K.G.** (2014) Can We Treat Hydraulic Fracturing Flowback with a Conventional Biological Process? The Case of Guar Gum *Environmental Science & Technology Letters* 1 (1), pp 133–136. DOI: 10.1021/ez4000115
83. **Beck, S.E., Rodriguez, R.A., *Linden, K.G., Hargy, T.M., Larason, T.C., Wright, H.B.** (2014) Wavelength Dependent UV Inactivation and DNA Damage of Adenovirus as Measured by Cell Culture Infectivity and Long Range Quantitative PCR” *Environmental Science & Technology* 48 (1), pp 591–598. DOI: 10.1021/es403850b
84. **Keen, O.S., McKay, G., Mezyk, S.P., Linden, K.G., Rosario-Ortiz, F.L.,** (2014) Identifying the factors that influence the reactivity of effluent organic matter with hydroxyl radicals, *Water Research* 50: 408-419. DOI: 10.1016/j.watres.2013.10.049.
85. **Kover, S.C., Rosario-Ortiz, F.L., *Linden, K.G.** (2014) Photochemical fate of solvent constituents of Corexit oil dispersants. *Water Research*, 52:101-111. DOI: 10.1016/j.watres.2013.12.013
86. **Chatterley, C., Linden, K.G., Javernick-Will, A.** (2013) Identifying pathways to continued maintenance of school sanitation in Belize. *Journal of Water Sanitation and Hygiene*, 3(3):411-422. doi:10.2166/washdev.2013.128
87. **Beck, S.E., Rodriguez, R.A., Salvesson, A., Goel, N., Rhodes, S., Kehoe, P., *Linden, K.G.** (2013) “Disinfection Methods for Treating Low TOC, Light Graywater to California Title 22 Water Reuse Standards” *ASCE: Journal of Environmental Engineering*, 139(9), 1137–1145
88. **Matafonova, G.G., Batoev, V.B., Linden, K.G.** (2013) “Photocatalytic-based inactivation of *E. coli* by UV 282 nm XeBr Excilamp” *Journal of Environmental Science and Health, Part A. Vol. 48, No. 13*, 1670-1676, DOI: 10.1080/10934529.2013.815492
89. **Matafonova, G.G., Batoev, V.B., Linden, K.G.,** (2013) Impact of scattering of UV radiation from an exciplex lamp on the efficacy of photocatalytic inactivation of cells in water, *Journal of Applied Spectroscopy*, Vol. 79, No. 2, 296-301, 2013
90. **Keen, O.S., Thurman, E.M., Ferrer, I., Dotson, A.D., *Linden, K.G.** (2013) “Dimer formation during UV photolysis of diclofenac” *Chemosphere*, Vol. 93, No. 9, 1948-1956.
91. **Bibby, K.J., Brantley, S.L., Reible, D.D., Linden, K.G., Mouser, P.J., Gregory, K.B., Ellis, B.R., and Vidic, R.D.** (2013) “Suggested Reporting Parameters for Investigations of Wastewater from Unconventional Shale Gas Extraction” *Environmental Science & Technology* 2013 47 (23), 13220-13221. DOI: 10.1021/es404960z
92. **Keen, O.S. and *Linden, K.G.** (2013) Degradation of Antibiotic Activity during UV/H₂O₂ Advanced Oxidation and Photolysis in Wastewater Effluent *Environmental Science & Technology* 2013 47 (22), 13020-13030
93. **Lester, Y., Sharpless, C.M., Mamane, H. and *Linden, K.G.** (2013) Production of Photo-oxidants by Dissolved Organic Matter During UV Water Treatment *Environmental Science & Technology* 2013 47 (20), 11726-11733

94. **Keen, O.S. and *Linden, K.G.** (2013) Re-Engineering an Artificial Sweetener: Transforming Sucralose Residuals in Water via Advanced Oxidation *Environmental Science & Technology* **2013** 47 (13), 6799-6805
95. **Keen, O., Dotson, A.D., *Linden, K.G.** (2013) "Evaluation of hydrogen peroxide chemical quenching agents following an advanced oxidation process" *ASCE: Journal of Environmental Engineering* 139(1), 137–140 [http://dx.doi.org/10.1061/\(ASCE\)EE.1943-7870.0000619](http://dx.doi.org/10.1061/(ASCE)EE.1943-7870.0000619)
96. **Rodriguez, R.A., Bounty, S., *Linden, K.G.** (2013) Long-Range Quantitative PCR for Determining Inactivation of Adenovirus 2 by UV Light. *J. Applied Microbiology*. 114(6) 1854-1865
97. Azaizeh, H., **Linden, K.G., Barstow, C.,** Kalbouneh, S. Tellawi, A, Albalawneh, A., Gerchman, Y. (2013) "Constructed wetlands combined with UV disinfection systems for removal of enteric pathogens and wastewater contaminants" *Water Science and Technology* Vol. 67, No. 3, 651-657. doi: 10.2166/wst.2012.615.
98. **Bounty, S. Rodriguez, R., *Linden, K.G.** (2012) "Inactivation of adenovirus using low-dose UV/H₂O₂ advanced oxidation", *Water Research*, Vol. 46, No. 19, 6273-6278 <http://dx.doi.org/10.1016/j.watres.2012.08.036>
99. **Keen, O., Baik, S, *Linden, K.G.,** Aga, D.S., Love, N.G. (2012) "Enhanced biodegradation of carbamazepine after UV/H₂O₂ advanced oxidation" *Environmental Science and Technology*, Vol. 46, 6222–6227
100. Bell, K.Y., Bandy, J., Beck, S., **Keen, O.,** Kolankowsky, N., **Parker, A.M., Linden, K.** (2012) Emerging pollutants – Part II: Treatment. *Water Environment Research* 84(10), 1909-1940
101. **Dotson, A.D., Rodriguez, C., *Linden, K.G.** (2012) "UV Disinfection Implementation Status in US Water Treatment Plants" *Journal of the American Water Works Association*, Vol. 104, No. 5, 318-324
102. **Keen, O.,** Love, N.G., ***Linden, K.G.** (2012) The role of effluent nitrate in trace organic chemical oxidation during UV disinfection", *Water Research*, Vol. 46, 5224-5234.
103. Lyon, B., **Dotson, A.D., Linden, K.G.,** Weinberg, H., (2012) "The effect of inorganic precursors on disinfection byproduct formation during UV-chlorine/chloramine drinking water treatment" *Water Research*. Vol. 46, 4653 – 4664.
104. **Eischeid, A.,** Thurston, J., ***Linden, K.G.** (2011) "UV Disinfection of Adenovirus: Current State of the Research and Future Directions" *Critical Reviews in Environmental Science and Technology* Vol. 41, 1375–1396
105. Shah, A.D., **Dotson, A.D. Linden, K.G.** Mitch, W.A. (2011) Impact of UV Disinfection Combined with Chlorination/ Chloramination on the Formation of Halonitromethanes and Haloacetonitriles in Drinking Water *Environmental Science and Technology* Vol. 45, 3657–3664.

106. Park, G-W., Vinjie, J., **Linden, K.G.**, Sobsey, M.D. (2011) “Comparative UV inactivation of murine norovirus, feline calicivirus, echovirus 12 and coliphage” *Letters in Applied Microbiology* Vol. 52, No. 2. 162-167
107. **Eischeid, A., and *Linden, K.G.** (2011) ”Molecular Indications of Protein Damage in Adenoviruses after UV Disinfection” *Applied and Environmental Microbiology*, Vol. 77, No. 3. Pp 1145-1147
108. **Chatterley, C.J. and *Linden K.G.** (2010) “Demonstration and evaluation of germicidal UV-LEDs for point-of-use water disinfection” *Journal of Water and Health*, Vol. 8, No. 3, pp 479 – 486.
109. **Dotson, A.D., Keen, V. Metz, D. *Linden K.G.** (2010) UV/H₂O₂ treatment of drinking water increases post-chlorination DBP formation” *Water Research* Vol. 44, p. 3703-3713.
110. Reckhow, D.A., **Linden, K.G.**, Kim, J., **Shemer, H.**, Makdissy, G. (2010) “Effect of UV Treatment on DBP Formation”, *Journal of the American Water Works Association*, Vol. 102, No. 6, pp 100-113.
111. **Wu, C., *Linden, K.G.** (2010) “Phototransformation of selected organophosphorus pesticides: Roles of hydroxyl and carbonate radicals” *Water Research*, Vol. 44, p. 3585-3594.
112. **Watts, M.J., *Linden, K.G.** (2009) “Advanced oxidation kinetics of aqueous tri alkyl phosphate flame retardants and plasticizers” *Environmental Science and Technology* Vol. 43, No. 8, 2937-2942.
113. Shin G-A, Lee, J-K, **Linden, K.G.** (2009) “Enhanced effectiveness of medium-pressure ultraviolet lamps on human adenovirus 2 and its possible mechanism” *Water Science & Technology—WST*, Vol. 60, No. 4., 851-857
114. **Bandy, J., Shemer, H., *Linden, K.G.** (2009) “The impact of lamp choice and H₂O₂ dose on the photodegradation of nitrobenzene” *Environmental Engineering Science*, Vol. 26, No. 5, 973-980
115. ***Linden, K.G.**, Shin, G-A., Lee, J-K., Scheible, O.K., Shen, C., Posy, P. (2009) “Demonstrating 4-log Adenovirus Inactivation in a Medium-Pressure Ultraviolet Disinfection Reactor”, *Journal AWWA* , Vol. 101, No. 4, 90-97 **2010 Best Paper Award, JAWWA**
116. **Mamane, H., Bohrerova, Z., *Linden, K.G.** (2009) “Evaluation of Bacillus spore survival and surface morphology following chlorine and UV disinfection in water” *ASCE: Journal of Environmental Engineering* Vol. 135 No. 8, 692-699.
117. Shin, G-A, **Linden, K.G.**, Faubert, G. (2009) “Inactivation of *Giardia lamblia* cysts by polychromatic UV emission” *Letters in Applied Microbiology* Vol. 48, No. 6, 790-792.
118. Slotkin, T., Seidler, F., **Wu, C**, MacKillop, E., **Linden, K.** (2009) Photolytic Breakdown Products of Chlorpyrifos: Developmental Neurotoxicity Evaluated in PC12 Cells, *Environmental Health Perspectives* Vol. 117, No. 3, 338–343.

119. **Bohrerova, Z., Bohrer, G., Cho, K.D., Linden, K.G.** (2009) “Determining the viability response of pine pollen to atmospheric conditions during long-distance dispersal” *Ecological Applications* Vol. 19, No. 3, 656-667.
120. **Eischeid, A.C., Meyer, J., *Linden, K.G.** (2009) “UV Disinfection of Adenoviruses: Molecular Indications of DNA Damage Efficiency” *Applied and Environmental Microbiology*, Vol. 75, No. 1, 23-28.
121. **Watts, M.J., *Linden, K.G.** (2008) “Photooxidation and subsequent biodegradability of recalcitrant tri-alkyl phosphates TCEP and TBP in water” *Water Research*, Vol. 42, No. 20, 4949-4954
122. **Wu, C., *Linden, K.G.,** (2008) “Degradation and Byproducts Formation of Parathion in Aqueous Solutions by UV and UV/H₂O₂ Treatment”, *Water Research*, Vol. 42, No. 19, 4780-4790.
123. Elovitz, M.S., **Shemer, H., Peller, J.R., Vinodgopal, K., Sivaganesan, M., *Linden, K.G.** (2008) “Hydroxyl radical rate constants: Comparing UV/H₂O₂ and pulse radiolysis for environmental pollutants” *Journal of Water Supply Research and Technology – Aqua* Vol. 57, No. 6, 391-401
124. **Bohrerova, Z., Shemer, H., Lantis, B., Impellitteri, C., *Linden, K.G.** (2008) “Comparative Disinfection Efficiency of Pulsed and Continuous-Wave UV Irradiation Technologies” *Water Research* Vol. 42, No. 12, 2975-2982
125. **Örmeci, B., Linden, K.G.** (2008) “Development of a fluorescence in-situ hybridization protocol for the identification of microorganisms associated with wastewater particles and flocs” *Journal of Environmental Science and Health Part A* Vol. 43, No. 13, 1484-1488
126. Chen W.R, **Wu, C., Linden, K.G., Suffet, I.H.** (2008) “Reactions of thiocarbamate, triazine and urea herbicides, RDX and benzenes on EPA Contaminant Candidate List with ozone and with hydroxyl radicals” *Water Research* Vol. 42, No. 1-2, 137-144
127. ***Linden, K.G., Thurston, J., Schaefer, R., Malley, J.P. Jr.** (2007) “Enhanced UV Inactivation of Adenoviruses under Polychromatic UV Lamps” *Applied and Environmental Microbiology*, Vol. 73, No. 23, 7571–7574
128. **Watts, M.J., Rosenfeldt, E.J., *Linden, K.G.** (2007) “Comparative OH radical oxidation using UV-Cl₂ and UV-H₂O₂ processes” *Journal WSRT-AQUA*, Vol. 56, No. 8, 469-478.
129. Pereira, V.J., ***Linden, K.G., Weinberg, H.S.** (2007) “Evaluation of UV irradiation for photolytic and oxidative degradation of pharmaceutical compounds in water” *Water Research* Vol. 41, No. 19, 4413 – 4423
130. **Linden, K.G., Rosenfeldt, E.J., Kullman, S.W.** (2007) “UV/H₂O₂ degradation of endocrine-disrupting chemicals in water evaluated via toxicity assays” *Water Science and Technology*, Vol. 55, No. 12, 313-319
131. **Eischeid, A., *Linden, K.G.** (2007) “Efficiency of pyrimidine dimer formation in *Escherichia coli* across UV wavelengths” *Journal of Applied Microbiology*. Vol. 103, 1650–1656

132. **Watts, M.J., *Linden, K.G.** (2007) "Chlorine Photolysis and Subsequent *OH Radical Production During UV Treatment of Chlorinated Water" *Water Research*, Vol. 41, No. 13, 2871-2878.
133. **Wu, C., Shemer, H., *Linden, K.G.** (2007) "Photodegradation and Byproduct Formation of Metolachlor in Water via UV and UV/H₂O₂ Treatment" *J. Agric. Food Chem.* Vol. 55, No. 10, 4059-4065.
134. **Bohrerova, Z., *Linden, K.G.** (2007) "Standardizing Photoreactivation: Comparison of DNA Photorepair Rate in Escherichia coli Using Four Different Fluorescent Lamps" *Water Research*, Vol. 41, No. 12, 2832-2838.
135. Schaefer, R., Grapperhaus, M., Schaefer, I., and **Linden, K.**, (2007) "Pulsed UV lamp performance and comparison with UV mercury lamps", *Journal of Environmental Engineering and Science* Vol. 6, No. 3, 303-320.
136. Grapperhaus, M., Schaefer, R. and **Linden, K.**, (2007) "Modeling of a new UV test cell for evaluation of lamp fluence rate effects in regard to water treatment, and comparison to collimated beam tests", *Journal of Environmental Engineering and Science*, Vol. 6, No. 3, 271-276.
137. **Chen, P.J.**, Kullman, S.W., Hinton, D., ***Linden, K.G.** (2007) "Comparisons of Low- and Medium- Pressure UV lamps on the Removal of Bisphenol A Estrogenic Activity in Water following Direct Photolysis and UV/H₂O₂ Oxidation Processes" *Chemosphere*, Vol. 68, No. 6, 1041-1049.
138. **Rosenfeldt, E.J., *Linden, K.G.**, (2007) "Hydroxyl radical formation during the UV/H₂O₂ processes: The R_{OH/UV} concept" *Environmental Science and Technology*. Vol. 41, No. 7, 2548-2553
139. **Mamane, H., Shemer, H. *Linden, K.G.** (2007) "Inactivation of *E. coli*, *B. subtilis* spores, and MS2, T4, and T7 phage using UV/H₂O₂ advanced oxidation" *Journal of Hazardous Materials*. Vol. 146, 479- 486
140. Liu, D. Wu, C., **Linden, K.G.**, Ducoste, J. (2007) "Numerical Simulation of UV Disinfection Reactors: Evaluation of Alternative Turbulence Models", *Applied Mathematical Modeling*, Vol. 31, No. 9, 1753-1769
141. **Rosenfeldt, E.J., Chen, P.J.**, Kullman, S.W., ***Linden, K.G.**, (2007) "Destruction of estrogenic activity in water using UV advanced oxidation" *Science of the Total Environment*, Vol. 377, No. 1, 105-113.
142. **Chen, P.J., Rosenfeldt, E.J.**, Kullman, S.W., Hinton, D., ***Linden, K.G.** (2007) "Biological Assessments of a Mixture of Endocrine Disruptors at Environmentally Relevant Concentrations in Water following UV/H₂O₂ Oxidation" *Science of the Total Environment*, Vol. 376, No. 1-3, 18-26.
143. **Shemer, H., *Linden, K.G.** (2007) "Aqueous photodegradation and toxicity of the polycyclic aromatic hydrocarbons fluorene, dibenzofuran and dibenzothiophene", *Water Research*, Vol. 41, No 4, 853-861.

144. Pereira, V.J., Weinberg, H.S., **Linden, K.G.**, Singer, P.C. (2007) "UV degradation of pharmaceutical compounds in surface water via direct and indirect photolysis at 254 nm" *Environmental Science and Technology* Vol. 41, No 5, 1682-1688.
145. **Shemer, H.**, ***Linden, K.G.** (2007) "Photolysis, oxidation and subsequent toxicity of a mixture of polycyclic aromatic hydrocarbons in natural waters", *Journal of Photochemistry and Photobiology A: Chemistry* Vol. 187, No. 2-3, 186-195
146. **Bohrerova, Z.**, **Mamane-Gravetz, H.**, Ducoste, J., ***Linden, K.G.** (2006) "Comparative inactivation of *Bacillus subtilis* spores and MS-2 coliphage in a LP UV reactor: implications for validation", *ASCE: Journal of Environmental Engineering* Vol. 132, No. 12, 1554-1561
147. **Rosenfeldt, E.J.**, **Linden, K.G.**, Canonica, S., von Gunten, U. (2006) "Comparative efficiency of OH radical generation from ozone and UV based processes" *Water Research* Vol. 40, No. 20, 3695 – 3704
148. **Shemer, H.**, **Sharpless, C.M.**, Elovitz, M.S., ***Linden, K.G.** (2006) "Relative rate constants of contaminant candidate list pesticides with hydroxyl radicals" *Environmental Science and Technology* Vol. 40, 4460-4466
149. **Bohrerova, Z.**, ***Linden, K.G.** (2006) Molecular Based Assessments of Inactivation and Photorepair of *Mycobacterium terrae* following UV Disinfection" *Journal of Applied Microbiology* Vol. 101, 995–1001
150. **Chen, P.J.**, **Linden, K.G.**, Hinton, D.E., Kashiwada, S., **Rosenfeldt, E.J.**, Kullman, S.W. (2006) "Biological Assessments of Bisphenol A Degradation in Water following Direct Photolysis and UV Advanced Oxidation" *Chemosphere* Vol. 65, 1094–1102.
151. **Jin S.**, Mofidi, A.A., and ***Linden, K.G.** (2006). "Polychromatic UV fluence measurements using chemical actinometry, biodosimetry, and mathematical techniques" *ASCE Journal of Environmental Engineering* Vol. 132, No. 8, 831-841.
152. **Mamane-Gravetz, H.** and ***Linden, K.G.** (2006). "Impact of particle aggregated microbes on UV disinfection. Part I: discrepancy between spore-clay aggregates and suspended spores" *ASCE Journal of Environmental Engineering* Vol. 132, No. 6, 596-606.
153. **Mamane-Gravetz, H.** and ***Linden, K.G.** (2006). "Impact of particle aggregated microbes on UV disinfection. Part II: importance of proper absorbance measurement on UV dose determination" *ASCE Journal of Environmental Engineering* Vol. 132, No. 6, 607-615
154. **Shemer, H.**, ***Linden, K.G.** (2006) "Degradation and byproduct formation of diazinon using UV and UV/H₂O₂ processes", *Journal of Hazardous Materials* Vol. 136, No. 3, 553-559
155. **Chen, W.**, **Sharpless, C.M.**, **Linden, K.G.**, Suffet, I.H. (2006) "Treatment of Volatile Organic Chemicals (VOCs) on the EPA Contaminant Candidate List Using Ozonation and O₃/H₂O₂ Advanced Oxidation Process" *Environmental Science and Technology* Vol. 40, No. 8, 2734-2739.

156. **Bohrerova, Z.** and ***Linden K.G.** (2006) "UV and chlorine disinfection of *Mycobacterium* in wastewater: impact of aggregation" *Water Environment Research*. Vol. 78, No. 6, 565–571.
157. **Mamane-Gravetz, H.**, Ducoste, J., ***Linden, K.** (2006) "Impact of Particles on UV Light Penetration in Natural and Engineered Systems" *Applied Optics* Vol. 45, No. 8, 1844-1856.
158. **Shemer, H.**, Kunukcu, Y.K., ***Linden, K.G.** (2006) "Degradation of the Pharmaceutical Metronidazole Via UV, Fenton and photo-Fenton Processes, *Chemosphere* Vol. 63, 269-276.
159. **Bohrerova Z.**, Bohrer, G., Mohanraj, S., Ducoste, J., ***Linden K.G.** (2005) "Experimental measurements of fluence distribution in a UV reactor using fluorescent dyed microspheres" *Environmental Science and Technology* Vol. 29, No. 22, 8925 - 8930
160. Qian, S.S., **Linden, K.G.**, Donnelly, M. (2005) "A Bayesian Analysis of Mouse Infectivity Data to Evaluate the Effectiveness of Using Ultraviolet Light as a Drinking Water Disinfectant" *Water Research* Vol. 39, No. 17, 4229-4239
161. **Mamane-Gravetz, H.**, **Linden, K.G.** Cabaj, A., Sommer, R., (2005) "Spectral sensitivity of *Bacillus subtilis* spores and MS2 coliphage for validation testing of ultraviolet reactors for water disinfection" *Environmental Science and Technology* Vol. 39, No. 20, 7845-7852
162. **Shemer, H.**, **Sharpless, C.M.**, ***Linden, K.G.** (2005) "Photodegradation of 3,5,6-trichloro-2-pyridinol in aqueous solution", *Water, Air, and Soil Pollution*. Vol. 168, No. 1-4, 145-155.
163. **Rosenfeldt, E.J.**, Melcher, B., and ***Linden, K.G.** (2005) "Treatment of Taste and Odor Causing Compounds in Water by UV and UV/H₂O₂ Processes", *Journal of Water Supply: Research & Technology –AQUA* Vol. 54, No. 7, 423-434.
164. Ducoste, J., Liu, D., and **Linden, K.G.** (2005) "Alternative Approaches to Modeling Dose Distribution and Microbial Inactivation in Ultraviolet Reactors: Lagrangian vs. Eulerian" *ASCE Journal of Environmental Engineering* Vol. 131, No. 10, 1393-1403
165. Ducoste, J.J., **Linden, K.G.**, Rojker, D., Liu, D., (2005) "Assessment of Reduction Equivalent Fluence Bias Using Computational Fluid Dynamics" *Environmental Engineering Science* Vol. 22, No. 5, 615-628
166. **Ormeci, B.**, and ***Linden, K.G.** (2005) "Comparison of Physical and Chemical Methods for Extraction of Microorganisms from Wastewater Particles and Flocs" *Environmental Engineering Science*, Vol. 22, No. 4, 459-471.
167. Johnson, A.M., **Linden, K.G.**, Ciociola, K.M., De Leon, R., Widmer, G. Rochelle, P.A. (2005) "UV inactivation of *Cryptosporidium hominis* as measured in cell culture" *Applied and Environmental Microbiology*, Vol. 71, No. 5, 2800-2802.
168. **Jin, S.**, ***Linden, K.G.**, Ducoste, J., Liu, D. (2005) "Impact of Lamp Shadowing and Reflection on the Fluence Rate Distribution in a Multiple Low-Pressure UV Lamp Array" *Water Research*, Vol. 39, No. 12, 2711-2721.

169. **Ormecci, B.**, Ducoste, J., and ***Linden, K.G.** (2005) “UV Disinfection of Chlorinated Water: Impact on Chlorine Concentration and UV Dose Delivery”, *Journal of Water Supply: Research & Technology –AQUA*, Vol. 54, No. 3, 189-199.
170. **Sharpless, C.M.** and **Linden, K.G.** (2005) “Interpreting Collimated Beam UV Oxidation Rate Data in Terms of Electrical Efficiency of Treatment” *Journal of Environmental Engineering and Science*. Vol. 4, No. S1, 19-26.
171. Shin, G-A., **Linden, K.G.**, Sobsey, M.D. (2005) “Low pressure UV inactivation of pathogenic enteric viruses and bacteriophages” *Journal of Environmental Engineering and Science*. Vol. 4, No. S1, 7-11.
172. Shin, G-A., **Linden, K.G.**, Faubert, G., Sobsey, M.D. (2005) “Inactivation of *Giardia lamblia* cysts by UV irradiation in real field waters” *Journal of Water and Environment Technology*. Vol. 3, No. 1, 41-45.
173. Oliver, J.D., Dagher, M., and **Linden, K.G.** (2005) “Induction of *Escherichia coli* and *Salmonella typhimurium* into the viable but nonculturable state following chlorination of wastewater”, *Journal of Water and Health*. Vol. 3, No. 3, 249-257.
174. Ducoste, J., **Linden, K.G.** (2005) “Determination of UV Sensor Location for Sensor Set-point Monitoring using Computational Fluid Dynamics” *Journal of Environmental Engineering and Science*. Vol. 4, No. S1, 33-43.
175. Bolton, J.R. and ***Linden K.G.** (2005) Discussion of “Standardized Collimated Beam Testing Protocol for Water/Wastewater Ultraviolet Disinfection”, by Kuo, J. et al., *ASCE: Journal of Environmental Engineering* Vol. 131, No. 5, 827-829.
176. **Mamane-Gravetz, H.** and ***Linden, K.G.** (2005) “The relationship between physiochemical properties, aggregation, and UV inactivation of isolated indigenous spores in water”, *Journal of Applied Microbiology* Vol. 98, No. 2, 351-363.
177. Liu, D., Ducoste, J., **Jin, S.**, and **Linden, K.G.** (2004) “Evaluation of Alternative Fluence Rate Distribution Models” *Journal of Water Supply: Research & Technology –AQUA* Vol.53 No. 6, 391-408
178. Mofidi, A.A., and **Linden, K.G.**, (2004) “Disinfection Effectiveness of Ultraviolet Light for Heterotrophic Bacteria Leaving Biologically Active Filters” *Journal of Water Supply: Research & Technology –AQUA* Vol. 53 No. 8, 553-566
179. **Rosenfeldt, E.** and ***Linden, K.G.** (2004) “Degradation of endocrine disrupting chemicals bisphenol-A, ethinyl estradiol, and estradiol during UV photolysis and advanced oxidation processes” *Environmental Science and Technology*, Vol. 38 No. 20, 5476-5483
180. **Batch, L.F.**, Schulz, C.D., and ***Linden, K.G.** (2004) “Evaluating Water Quality Impacts on UV Disinfection of MS2 Coliphage in Filtered Water” *Journal of the American Water Works Association*, Vol. 96, No. 7, pp. 75-87.
181. **Mamane-Gravetz, H.** and ***Linden, K.G.** (2004) “UV disinfection of indigenous aerobic spores: implications for UV reactor validation with unfiltered waters”, *Water Research* Vol. 38, No. 12, pp. 2898-2906

182. Kashinkunti, R., **Linden, K.G.**, Shin, G-A, Metz, D.H., Sobsey, M.D., Moran, M. and Samuelson, A. (2004) "Investigating Multi-Barrier Inactivation for Cincinnati: UV, By-products, and Biostability" *Journal of the American Water Works Association*, Vol. 96, No. 6, pp. 114-127.
183. Qian, S., Donnelly, M., Schmelling, D., Messner, M., **Linden, K.G.**, Cotton, C. (2004) "Ultraviolet light inactivation of Cryptosporidium and Giardia in drinking water A Bayesian meta-analysis" *Water Research*, Vol. 38, pp.317-326
184. Chen, W.R., **Sharpless, C.M.**, **Linden, K.G.**, Suffet, I.H. (2004) "Kinetic studies of volatile organic chemicals on the EPA contaminant candidate list by advanced oxidation processes" *Abstracts of Papers of the American Chemical Society*, Vol. 228: U551-U551 055-ENVR Part 1 (AUG 22 2004)
185. **Sharpless, C.M.**, **Seibold, D.A.**, and **Linden, K.G.** (2003) "Nitrate photosensitized degradation of atrazine during UV water treatment", *Aquatic Sciences* Vol. 65, No. 4, pp. 359-366
186. **Sharpless, C.M.**, **Page, M.**, and ***Linden, K.G.** (2003) "Impact of Hydrogen Peroxide on Nitrite Formation During UV Disinfection" *Water Research*, Vol. 37, pp.4730-4736.
187. **Christensen, J.A.** and ***Linden, K.G.** (2003) "How Particles Affect UV Light in the UV Disinfection of Unfiltered Drinking Water" *Journal of the American Water Works Association*, Vol. 95 No. 4, pp. 179-189.
188. **Sharpless, C.M.** and ***Linden, K.G.** (2003) "Experimental and Model Comparisons of Low- and Medium-Pressure Hg Lamps for the Direct and H₂O₂ Assisted UV Photodegradation of N-nitrosodimethylamine in Simulated Drinking Water", *Environmental Science and Technology*, Vol. 37 No. 9, pp. 1933-1940
189. Bolton, J.R. and ***Linden, K.G.** (2003) "Standardization of Methods for Fluence (UV Dose) Determination in Bench-scale UV Experiments" *ASCE: Journal of Environmental Engineering*, Vol. 129 No. 3. pp 209-215.
190. **Ormecci, B.** and ***Linden, K.G.** (2002) "Comparison of UV and chlorine inactivation of particle and non-particle associated coliform", *Water Science and Technology: Water Supply*, Vol. 2, No 5-6, pp 403-410.
191. Magnuson, M.L., Kelty, C.A., **Sharpless, C.M.**, **Linden, K.G.**, Fromme, W., Metz, D., Kashinkunti, R. (2002) "Effect of UV irradiation on Organic Matter Extracted from Treated Ohio River Water Studied Through the Use of Electrospray Mass Spectrometry", *Environmental Science and Technology*, Vol. 36 No. 23, pp. 5252-5260.
192. Liu, W., Andrews, S.A., Bolton, J.R., **Linden, K.G.**, **Sharpless, C.M.**, Stefan, M. (2002) "Comparison of disinfection byproduct (DBP) formation from different UV technologies at bench-scale", *Water Science and Technology: Water Supply*, Vol. 2, No 5-6, pp 515-521.
193. ***Linden, K.G.** Shin, G.A., Faubert, G., Cairns, W., Sobsey, M.D. (2002) "UV disinfection of *Giardia lamblia* in water". *Environmental Science and Technology*, Vol. 36 No. 11, pp. 2519-2522.

194. **Sharpless, C.M., and *Linden, K.G.** (2001) "UV photolysis of nitrate: quantum yields, effects of natural organic matter and dissolved CO₂, and implications for UV water disinfection" *Environmental Science and Technology*, Vol. 35 No. 14, pp. 2949-2955.
195. ***Linden, K.G., Shin, G.A., and Sobsey, M.D.** (2001) "Relative efficacy of UV wavelengths for the inactivation of *Cryptosporidium parvum*" *Water Science and Technology*, Vol. 43 No. 12, pp. 171-174.
196. **Shin, G.A., Linden, K.G., Arrowood, M. and Sobsey, M.D.,** (2001) "Low pressure UV inactivation and subsequent DNA repair potential of *Cryptosporidium parvum* oocysts", *Applied and Environmental Microbiology*, Vol. 67, No. 7, pp. 3029-3032.
197. **^Linden, K.G. and J.L. Darby.** (1998) "UV disinfection of marginal effluents: determining UV absorbance and subsequent estimation of UV intensity," *Water Environment Research*, Vol. 70, No. 2, pp. 214-223
198. **^Linden, K.G. and J.L. Darby.** (1997) "Estimating the effective germicidal dose from medium pressure UV lamps," *ASCE: Journal of Environmental Engineering*, Vol. 123, No. 11, pp. 1142-1149
199. **^Linden(auer), K.G. and J.L. Darby.** (1994) "Ultraviolet disinfection of wastewater: effect of UV dose on subsequent photoreactivation," *Water Research*, Vol.28, pp. 805.
200. **^Kayhanian, M., Linden(auer), K.G., Hardy, S., and Tchobanoglous, G** (1991) "2-Stage Process Combines Anaerobic and Aerobic Methods" *Biocycle*, Vol. 32, No. 3, 48-53

Peer Reviewed Publications: Submitted

Conference Proceedings/Presentations (Competitive Reviewed Abstracts)

1. K. Sholtes , J. Pagan , O. Lawal , K. Linden, (2018) "Standardization of Measurement of UV- LED Lamp Output, Feasibility, and Tolerance to Error" IUVA ICULTA Joint International Conference on UV LED Technologies and Applications, April 2018, Berlin, Germany
2. Hull NM and Linden KG (2018). "Performance of a UV-LED disinfection system year-long trial at a small drinking water plant" AWWA Water Quality Technology Conference, Toronto, Ontario, Canada.
3. Hull NM and Linden KG (2018). Sequential LED and excimer lamp exposures for viral UV disinfection. IUVA Americas, Redondo Beach, CA, USA.
4. Hull NM, Rosenblum JA, Robertson CE, Harris JK, and Linden KG (2018). Fracking flowback long-term succession of microbial communities and toxicity. 15th Annual RMSAWWA/ RMWEA Student Conference. Colorado School of Mines, Golden, CO, USA.

5. Valcourt, N., Walters, J., Javernick-Will, A., Linden, K., (2018). Evaluating Dynamic Processes of Rural Water Service Delivery Schemes in Sub-Saharan African Communities. Verbal presentation at the 36th International Conference of the System Dynamics Society, Reykjavik, Iceland.
6. Rodríguez, R.A.; Navar, C.A.; Sangsanont, J.; Linden, K., 2018. Comparative UV resistance of environmental isolates and lab strain adenovirus after monochromatic and polychromatic exposure. UNC Water Microbiology Conference, Chapel Hill, NC, May 22-24th, 2018
7. Sitterley, Kurban A.; Linden, Karl G.; Ferrer, Imma; Thurman, E. Michael. "Discovery of Proprietary Amino Ethoxylates in Hydraulic Fracturing Wastewater Using LC/Q- TOF/MS with Solid Phase Extraction" 2018, March 18-22; 255th ACS National Meeting, New Orleans, LA
8. Ulliman SL, Rosario-Ortiz, FL, Linden KG, Korak, JA (podium, June 2018). Assessment of optically-based measurements of organic matter for differentiation of source waters and treated wastewaters. Gordon Research Seminar, Holderness, New Hampshire.
9. Ulliman SL, Miklos DB, Hübner U, Drewes JE, Linden KG (podium, May 2018). Improving UV/H₂O₂ performance following tertiary and advanced treatment of municipal wastewater. 15th annual RMSAWWA/RMWEA Student Conference, Golden, CO.
10. Pugel, K., Javernick-Will, A., Walters, J., Valcourt, N., and Linden, K. (2018). "(F)actors of Water Projects: Sustaining Services through Collaborative Systems Approaches". 2018 Engineering Project Organizations Conference, Croatia.
11. Pugel, K., Javernick-Will, A., Linden, K. (2018). "Complexity aware decision making for water projects." International Forum on Engineering Decision Making, Lake Louise, Canada.
12. Pugel, K., Javernick-Will, A., Kiamba, P., Linden, K. (2018). "Using network analysis to map alignment toward collective action." Water and Health Policy Conference, Chapel Hill, NC
13. Linden, K., Hull, N.M., Sholtes, K., Beck, S. "UV LEDs for small systems: a revolution in robust and effective disinfection? " IWA SWWS2018 Conference on Small Water & Wastewater Systems and Resources Oriented Sanitation, Technion, Haifa, Israel
14. Linden, K., Hull, N.M., Sholtes, K., Beck, S. "UV LEDs for small drinking water systems: a revolution in robust and effective disinfection?" Lead Speaker, IUVA / ICULTA LED Conference, Berlin Germany, April 2018
15. Sitterley, Kurban A.; Linden, Karl G.; Ferrer, Imma; Thurman, E. Michael; "Identified Fingerprinting Compounds in Hydraulic Fracturing Fluids Using Solid Phase Extraction and LC/Q-TOF/MS", 253rd ACS National Meeting, San Francisco, CA; April 2-6, 2017.
16. Rodriguez, Roberto A.; Navar, Cesar A; Sangsanont Jatuwat; Linden, Karl; Determining Inactivation Rates of Adenoviruses Isolated from Sewage, IWA

Health Related Water Microbiology Conference, May 15-19, 2017, Chapel Hill, NC, USA

17. Sangsanont latuwat; Navar, Cesar A; Rodriguez, Roberto A; Linden, Karl; UV inactivation of environmental isolates of adenovirus and its impact on capsid integrity, IUVA World Congress, September 17-21, 2017, Dubrovnik, Croatia
18. Rosenblum J., Dane J., Thurman E.M., Ferrer I, Linden K. (2017) Utilization of soft and hard ionization techniques with 2-dimensional gas chromatography and high-resolution mass spectrometry for unknown identification in hydraulic fracturing fluid, flowback, and produced water samples. ACS, San Francisco
19. Rosenblum J., Hull N., Sitterley K., Ruyle B., Linden K. Biodegradation challenges of dissolved organic carbon in hydraulic fracturing flowback and the identification of its recalcitrant fraction. ACS, San Francisco, April 2017
20. Kaitlin Mattos, Aaron Dotson, Cara Lucas, Greg Michaelson, Liz Hodges-Snyder, Karl Linden, Household water reuse, on-site treatment and alternative water resources for use in remote Arctic communities, OU WaTER Conference, Norman, Oklahoma, September 18-19, 2017
21. Kaitlin Mattos, Aaron Dotson, Greg Michaelson, Cara Lucas, Karl Linden, Household Water Reuse and On-site Treatment for Rural Alaska, Colorado WASH Symposium, Boulder, Colorado, March 8, 2017
22. Ulliman, S; Linden, K; "Enhancing Efficiency of UV Advanced Oxidation Processes via Iron Addition." International Ultraviolet Association Conference. Austin, TX. Feb. 2017
23. Linden KG, Hull NM, Sholtes KA, and Beck SE (October 2017). UV LEDs for small systems: a revolution in robust and effective disinfection? International IWA S2Small Conference on Sustainable Solutions for Small Water and Wastewater Treatment Systems, Nantes, France.
24. Hull NM and Linden KG (September 2017). Longitudinal Disinfection Performance of a UV LED Reactor Piloted at a Drinking Water Plant. IUVA World Congress, Dubrovnik, Croatia.
25. Hull NM, Isola MR, Petri B, Chan P (Feb 2017). Algal DNA Damage Repair Kinetics Support MPN Evaluation of UV-Disinfected Ballast Water. IUVA Americas, Austin, Texas, USA.
26. Linden, K (2017) Exploring advantages and disadvantages of polychromatic Uv sources in water Treatment IUVA World Congress, Dubrovnik, Croatia.
27. Miklos, D., Hartl, R., Michel, P., Linden, KG, Drewes, JE, Hubner, U (2017) UV/H2O2 Pilot-scale Process Validation And Process Stability Evaluation For Trace Organic Chemical Removal From WWTP Effluents. IUVA World Congress, September 17-21, 2017, Dubrovnik, Croatia
28. Linden, KG, Javernick-Will, AJ, Hollander, D., Perez, E (2017) "Sustainable WASH Systems for Sustainable WASH Services" UNC Water and Health Conference October 2017

29. Linden, von Gunten, Mestankova, Parker, Canonica, Schirmer, K., Advanced oxidation-driven transformation of Contaminant Candidate List (CCL3) compounds in drinking water, ACS San Francisco, April 2017, Symposium in honor of Mel Suffet
30. Lauren M. Hafford, Barbara J. Ward, William W. McNeary, Moritz Gold, and Karl Linden. Fecal Sludge as a Fuel: characterization, co-fire limits, and two methods to improve its quality. SludgeTech, IWQ Specialist conference on Sludge Management, Imperial College, London England July 9-13, 2017
31. Sholtes, Kari; Lawal, Oliver; Pagan, Jennifer; Linden, Karl. Testing Protocol for Measurement of UV-C LED Lamp Output: Round Robin Report and Next Steps. IUVA World Congress. Dubrovnik, Croatia. September 18, 2017.
32. Sholtes, Kari; Lawal, Oliver; Pagan, Jennifer; Laga, Ian; Altus, Sabina; Linden, Karl. Results: Round Robin Testing Protocol for Measurement of UV-C LED Lamp Output. IUVA America Conference. Austin, Texas USA. February 2, 2017.
33. Wang, Wen-Long; Miklos, David B.; Hu, Hong-Ying; Linden, Karl G.; Drewes, Jörg. E.; Hübner, Uwe (2017). Degradation of trace organic chemicals by LED-UV/chlorine: synergistic effects. IUVA World Congress September 18.-20. 2017, Dubrovnik, Croatia.
34. Linden K, Javernick-Will A, Amadei B, Klees R, Sandekian R. (2016) "Engineering in developing communities: Curriculum development around graduate certificate and professional MS programs." Proc. 8th Conference on Engineering Education for Sustainable Development
35. Linden KG, Rosenblum JR, Hull N, thurman EM, ferrer I. "Characterization and treatment of hydraulic fracturing wastewater over time from northeast Colorado." American Chemical Society, 2016
36. Linden KG, Hull N. (2016) "Ultraviolet Wavelength- and Dose-Dependent Inactivation and Molecular Damage of MS2 Coliphage." Water Quality and Technology Conference (WQTC), November 13, 2016
37. Linden KG, Beck SE, Hull N. "Ultraviolet Wavelength- and Dose-Dependent Damage of Adenovirus Proteins." International UV Association World Congress (International UV Association World Congress, January 31, 2016-February 03, 2016), January 31, 2016
38. Linden KG, Ulliman S, Rosenblum JR. "Application of Advanced Oxidation Processes in the Treatment and Reuse of Hydraulic Fracturing Wastewater." International Ultraviolet Association World Congress (International Ultraviolet Association World Congress, January 31, 2016-February 03, 2016), January 31, 2016
39. Linden KG, Ulliman S. "Enhancing Efficiency of UV Advanced Oxidation Processes via Iron Addition." WateReuse Association 20th Annual WateReuse Conference (WateReuse Association 20th Annual WateReuse Conference, May 22, 2016-May 24, 2016), May 22, 2016

40. Linden KG, Ulliman S, Rosenblum J. "Application of Advanced Oxidation Processes in the Treatment and Reuse of Hydraulic Fracturing Wastewater." WaterReuse Association 20th Annual WaterReuse Conference (WaterReuse Association 20th Annual WaterReuse Conference, May 22, 2016-May 24, 2016), May 22, 2016
41. Hull, N., Rosenblum, J., Linden, K.G. (2015) "Toxicity Assessments of Frack Flowback Water Pre- and Post-Treatment During Initial Development of a Gas Well" American Water Works Association (AWWA) Water Quality Technology Conference (WQTC); Salt Lake City, UT, November 14, 2015
42. Ulliman, S., Linden, K.G. (2015) "Enhancing Efficiency of UV/AOP Processes via Iron Addition" American Water Works Association (AWWA) Water Quality Technology Conference (WQTC); Salt Lake City, UT, November 14, 2015
43. Rosenblum J.S., Nelson A., Thurman E.M., Ferrer I., Linden, K.G. (2015) "Chemical Characterization of a Hydraulic Fracturing Wells Wastewater Over Time" AWWA Water Quality Technology Conference, Salt Lake City, UT, November 2015
44. Sitterley K., Rosenblum J.S., Linden K. (2015) "Evaluating Chemical Coagulation and Electrocoagulation as Pretreatment for Hydraulic Fracturing Wastewater" American Water Works Association (AWWA) Water Quality Technology Conference (WQTC); Salt Lake City, UT, November 16, 2015
45. Ulliman, S., Rosenblum, J., Linden, K.G. (2015) "Application of Advanced Oxidation Processes in the Treatment and Reuse of Hydraulic Fracturing Wastewater." 30th Annual WaterReuse Symposium, Seattle, WA. September 14, 2015.
46. Ulliman, S., Linden, K.G. (2015) "Efficacy of UV/AOP Processes via Iron Addition." International Ultraviolet Association Research Frontiers Conference, Leeuwarden, The Netherlands. May 20, 2015.
47. Sitterley K., Rosenblum J.S., Linden K. (2015) "Electrocoagulation as Pretreatment for On-site Reuse of Hydraulic Fracturing Wastewater" Water Sustainability in Oil and Gas Exploration: Treatment Issues, American Chemical Society, Denver CO, March 25, 2015
48. Rosenblum J.S., Sitterley K., Linden K. (2015) "Biological treatment of hydraulic fracturing wastewaters" Water Sustainability in Oil and Gas Exploration: Treatment Issues, American Chemical Society, Denver CO, March 25, 2015
49. Sitterley K., Rosenblum J.S., Linden K (2015) "Electrocoagulation as Pretreatment for On-site Reuse of Hydraulic Fracturing Wastewater" Anadarko offices in Denver, CO March 31, 2015.
50. Rosenblum J.S., Ruyle, B., Thurman E.M., Ferrer I., Linden K. (2015) "Chemical Characterization of a Hydraulic Fracturing Wells Wastewater Over Time" Association of Environmental Engineering and Science Professors Conference, Yale University New Haven CT. June 14, 2015
51. Wright, H.B., Linden, K.G. (2014) "Action Spectra Correction Factors for Cryptosporidium and Adenovirus Inactivation Credit with Medium Pressure UV

- Disinfection” AWWA Water Quality Technology Conference, New Orleans, LA. November 16-19, 2014.
52. Ward, B.J., Fisher, R., Yacob, T., Mahoney, R., Weimer, A.W., Linden, K.G. (2014) "Energy From Waste: Evaluation of Char from Human Fecal Sludge As A Supplement for Coal" AIChE Annual Meeting. Atlanta, Georgia. Nov 16-21, 2014.
 53. Bolton, J.R., Mayor-Smith, I., Linden, K.G., Beck, S.E., Stefan, M.I. (2014) "Fundamental Aspects Concerning Data Analysis from Polychromatic UV Experiments" Americas Regional Conference; International UV Association, White Plains, NY, October 26-29, 2014.
 54. Parker, A.M.; Hawkinson, R.M., von Gunten, U.; Linden, K.G.; "Impact of UV and UV AOP Treatment on Assimilable Organic Carbon (AOC) Formation." Water Quality Technology Conference, Long Beach, CA – November 5, 2013.
 55. Parker, A.M.; von Gunten, U.; Linden, K.G.; "Evaluating the toxicity of emerging contaminants post UV and ozone based AOP treatment." International Ultraviolet Light Association/International Ozone Association World Congress – Las Vegas, NV – September 24, 2013.
 56. Parker, A.M.; Hawkinson, R.; von Gunten, U.; Linden, K.G.; "Impact of UV and Advanced Oxidation Treatment on AOC Formation." International Ultraviolet Light Association/International Ozone Association World Congress – Las Vegas, NV – September 23, 2013.
 57. Parker, A.M.; Spangler, E.; von Gunten, U.; Linden, K.G.; "Evaluating Toxicity of Organophosphate Contaminants on the US EPA Candidate Contaminant List Following UV and Ozone AOP Treatment." – Micropollutants and Ecotoxicity conference – Zurich, Switzerland – June 18, 2013.
 58. Parker, A.M.; Spangler, E.; von Gunten, U.; Linden, K.G.; "Evaluating the Toxicity of Organophosphate CCL3 Contaminants Post UV and Ozone Based AOP Treatment." Rocky Mountain Student Conference for American Water Works Association – May 14, 2013.
 59. Parker, A.M.; Spangler, E.; von Gunten, U.; Linden, K.G.; "Evaluating the toxicity of Organophosphate CCL3 Contaminants Post UV and Ozone Based AOP Treatment." American Chemical Society (ACS) Spring National Meeting. New Orleans, LA – April 10, 2013.
 60. Mestankova, H., Bramaz, N., Canonica, S., Linden, K.G., Von Gunten, U., Schirmer, K., (2013) "Advanced oxidation processes for the degradation of CCL3 compounds: Assessment of the toxicity of transformation products" American Chemical Society (ACS) Spring National Meeting. New Orleans, LA – April 10, 2013
 61. Nelson-Nunez, J.; Mahoney, R.; Mostafa, S.; Linden, K. "If you build it, will they come? Individual uptake of rural water services." 71st Annual Midwest Political Science Meeting, Chicago, IL, April 7-11, 2013.
 62. Lester, Y.; Sharpless, C. M.; Mamane, H.; Linden, K.G. "Photo-production of reactive oxidative species during UV treatment of water" The IOA/IUVA World Congress & Exhibition, Las Vegas, NV, September 22-26, 2013

63. Lester, Y.; Sharpless, C. M.; Mamane, H.; Linden, K.G. "Photo-production of reactive species during UV treatment of water" American Chemical Society (ACS) Spring National Meeting. New Orleans, LA – April 10, 2013
64. Beck, S.; Rodriguez, R.; Poepping, C.; Bounty, S.; Linden, K.G. "Wavelength-Specific Inactivation of Viruses. Measuring Nucleic Acid and Protein Damage." ReNUWIt Sunlight Symposium, Stanford University, April 2, 2013.
65. Keen, O. and Linden, K. (2013) Re-engineering the artificial sweetener: sucralose transformation by hydroxyl radicals and its suitability as probe. IUVA World Congress, Las Vegas, NV, September 22-26, 2013
66. Keen, O. and Linden, K. (2013) Re-engineering the artificial sweetener: Oxidation of sucralose residuals by UV/H₂O₂ advanced oxidation. ACS annual meeting, New Orleans, LA, April 7-11, 2013
67. Keen, O.S., McKay, G., Mezyk, S.P., Linden, K.G. and Rosario-Ortiz, F. (2013) Identifying the factors that influence the reactivity of effluent organic matter with hydroxyl radicals. ACS annual meeting, New Orleans, LA, April 7-11, 2013
68. Oversby, C.; Linden, K.; Weimer, A.; Summers, S; Klees, R.; Lewandowski, A.; Fisher, R.; Mahoney, R.; Yacob, T.; Mejic, D.; Hauschulz, D.; Kearns, J.; Beck, S.; Ward, B. J.; Hafford, L.; Ruiz, A. "Sol-Char Toilet Project Overview" University of Oklahoma International WaTER Conference, Norman, OK, Sept 23-25, 2013
69. Fisher, R.; Linden, K.; Weimer, A.; Summers, S; Oversby, C.; Klees, R.; Lewandowski, A.; Mahoney, R.; Yacob, T.; Mejic, D.; Hauschulz, D.; Kearns, J.; Beck, S.; Ward, B. J.; Hafford, L.; Ruiz, A. "The Sol-Char Toilet: Concentrated Solar Power Delivered Via Fiber Optics to Pyrolyze Human Waste to Biochar" AIChE, San Francisco, CA Nov 2-8 2013
70. Yacob, T.; Oversby, C.; Fisher, R.; Lewandowski, A.; Mahoney, R.; Mejic, D.; Beck, S.; Ward, B.; Kearns J.; Summers RS.; Weimer AW.; Linden, K. Sol-Char Toilet. Entrepreneurship Under the Microscope Symposium, University of Colorado, Boulder, CO. April 1, 2013.
71. Linden, K.G.; Beck, S.; Poepping, C., Wright, H., Hargy, T. Cotton, C. (2013) "Results and implication from generating the best action spectra data possible" American Water Works Association Annual Conference and Exposition, June 9-12, 2013.
72. Hargy, T.; Wright, H.; Beck, S.; Linden, K.; Larason, T.; McCuin, R. "UV Action Spectra of Pathogens and Surrogates" AWWA Water Technology Conference, Long Beach, CA, Nov. 3-7, 2013
73. Cotton, C., Wright, H., Linden, K.G. (2013) "After The Low Wavelength Research: Guidance For Operating UV Facilities And UV Facilities Under Design" Water Quality Technology Conference, Long Beach, CA – November 4, 2013
74. Wright, H., Linden, K.G., Beck, S., Hargy, T. (2013) "Impact of Microbial Action Spectra on RED Predicted Using CFD-Based UV Dose Models" IUVA World Congress, Las Vegas, NV, September 22-26, 2013

75. Linden, K.G., Poepping, C., Beck, S. (2013) "Potential for Unintended DNA Damage Reversal Resulting from Multiple Wavelength Irradiation from Polychromatic UV Light Sources" IUVA World Congress, Las Vegas, NV, September 22-26, 2013
76. Poepping, C., Beck, S., Linden, K.G. (2013) "Potential for Unintended DNA Damage Reversal Resulting from Multiple Wavelength Irradiation from Polychromatic UV Light Sources" Rocky Mountain Student Conference for American Water Works Association – May 14, 2013
77. Linden, K.; Beck, S.; Hargy, T.; Wright, H.; Larason, T.; McCuin, R. "Measuring Action Spectra of Pathogens and Surrogates" IUVA World Congress, Las Vegas, NV, September 22-26, 2013
78. Lester, Y., Ferrer I., Thurman, E.M., and Linden, K.G. (2013) "Using Sucralose as a Surrogate for UV/H₂O₂ Degradation of Trace Organic Contaminants" IUVA World Congress, Las Vegas, NV, September 22-26, 2013
79. Wright, H., Cotton, C., Linden, K.G. (2013) "After The Low Wavelength Research: Guidance For Operating UV Facilities And UV Facilities Under Design" IUVA World Congress, Las Vegas, NV, September 22-26, 2013
80. Kover, S., Rosario-Ortiz, F., Linden, K. "*Photoinduced Degradation of Corexit Constituents*" Gulf of Mexico Research Initiative Conference. January 21, 2013. New Orleans, LA.
81. Glover, C. M.; *Parker, A. M.; Linden, K.; Rosario-Ortiz, F. L. "Organic matter in ocean water as a proxy for indirect degradation of the dispersants used in the Deepwater Horizon oil spill" 245th ACS National Meeting, New Orleans, LA, April 7-11, 2013
82. Wright, H., Linden, K.G. (2012) "Using Computational Fluid Dynamics to Determine Action Spectra Correction Factors" AWWA Water Quality Technology Conference, Toronto, ON Canada, November 4-7, 2012
83. Beck, S., Rodriguez, R., Jeanis, K., Hargy, T., McCuin, R., Larason, T., Linden, K. (2012) "Wavelength-Specific Inactivation of Viruses: Measuring Nucleic Acid Damage." International Ultraviolet Association. Washington, D.C., Aug 12-14
84. Beck, S., Rodriguez, R., Jeanis, K., Hargy, T., Linden, K. (2012) "Wavelength-Specific Inactivation of Viruses: Measuring Nucleic Acid Damage at UV-C Wavelengths." Water Quality and Technology Conference, Toronto Canada. November 4-7, 2012
85. Linden, K.G. (2012) "Key Factors for Evaluating Medium Pressure UV Disinfection Systems" AWWA Water Quality Technology Conference, Toronto, ON Canada, November 4-7, 2012
86. Keen, O., Love, N. and Linden, K. (2012) The role of effluent nitrate in trace organic contaminant oxidation during UV disinfection. ACS annual meeting, Philadelphia, PA, Aug 17-21
87. Keen, O. and Linden, K. (2012) Degradation of antibacterial activity of antibiotics during UV/H₂O₂ advanced oxidation. AWRA Emerging Contaminants, Denver, CO, June 25-27

88. Linden, K.G., Summers, S., Weimer, A., Lewandowski, A., Klees, R., Mahoney, R., Fisher, R., Yacob, T., Kearns, J., Beck, S., Oversby, C. (2012) "Solar-Driven Thermal Toilet with Biochar Production" Second Fecal Sludge Management (FSM2) Conference, Durban, South Africa, October 29-Nov 1, 2012
89. Keen, O., Love, N. and Linden, K. (2012) The role of effluent nitrate in trace organic contaminant oxidation during UV disinfection. IUVA North American Congress, Washington, DC, Aug 12-14
90. Azaizeh, H., Linden, K., Kalbounieh, S., Tellawi, A., Gerchman, Y. (2012) "Constructed Wetlands and UV Systems for Removal of Enteric Pathogens and Wastewater Contaminants" IWA Wastewater Purification and Reuse March 28-30, 2012, Crete, Greece.
91. Linden, K., Scheible, K., Posy, P. (2011) "Regulatory implications of new findings on UV disinfection of Adenovirus in drinking water" AWWA Water Quality Technology Conference, Phoenix, AZ, November 13-16, 2011
92. Brooks, T., Dotson, A.D., Linden, K. (2011) "Nitrate Sensitized Degradation of Free Chlorine during Ultraviolet Irradiation", Water Quality Technology Conference, November 13-16, 2011.
93. Parker, A.M., Mestankova, H., von Gunten, U., Linden, K. G. (2011) "Evaluating the use of AOPs for Treating CCL3 Contaminants." Water Quality Technology Conference, Phoenix, Arizona – November 13-16, 2011.
94. Thomas, E., Zumr, Z., Barstow, C., Linden, K., (2011) *Proving Sustainability: The International Development Monitoring Initiative* IEEE Global Humanitarian Technology Conference, Technology for the Benefit of Humanity, Seattle WA, October 30-November 1, 2011
95. Keen, O., Baik, S., Linden, K., Aga, D. and Love, N. (2011) "Enhanced biodegradation of carbamazepine after UV/H₂O₂ advanced oxidation." WEFTEC, Los Angeles, CA, October 16-19, 2011
96. Chatterley, C., Linden, K., Javernick-Will, A. (2011) "Raising the Grade for WASH in Belizean Schools." Water and Health: Where Science Meets Policy, Chapel Hill NC, Oct 3-7, 2011
97. McClelland, C.J., Linden, K.G. (2011) "Identifying Key Factors that Contribute to Water Reuse Feasibility Using a Hybridized Decision and Scenario Tool", IWA Reuse Conference, Barcelona Spain, September 26, 2011
98. Beck, S., Salveson, A., Linden, K. (2011) "Assessment of Disinfection Processes for Reuse of Graywater Generated in a Commercial Office Building," 8th Annual IWA Conference on Water Reclamation and Reuse. Barcelona, Spain. Sept 27, 2011.
99. Keen, O., Baik, S., Linden, K., Aga, D. and Love, N. (2011) "Enhanced biodegradation of carbamazepine after UV/H₂O₂ advanced oxidation." International UV Association Conference, Toronto, Canada, September 18-21, 2011

100. Linden, K., (2011) "When Dose is not Dose: The Case of UV Disinfection of Adenovirus" International UV Association North American Congress, Toronto, Canada, Sept.18-21, 2011
101. Parker, A.M., Glover, C. M., Rosario-Ortiz, F. L., Linden, K. G. (2011) "Photochemical degradation of oil dispersants in ocean waters". IOA/IUVA North American Conference, Toronto, Canada, September 18-21, 2011.
102. Bounty, S., Martin, L., Rodriguez, R., Linden, K.G. (2011) "Inactivation of Adenovirus using Low Dose UV/H₂O₂ Advanced Oxidation", IUVA North American Conference, September 21, 2011 (First Place Student Paper Award)
103. Parker, A.M., Bracken, C., Dotson, A., Linden, K. G. (2011) "A New Approach to Evaluating UV/H₂O₂ Scavenging Demand." American Chemical Society (ACS) – Fall National Meeting – Denver, CO, August 29, 2011.
104. Keen, O., Baik, S., Linden, K., Aga, D. and Love, N. (2011) "Enhanced biodegradation of pharmaceuticals after UV/H₂O₂ advanced oxidation." American Chemical Society annual meeting, Denver, CO, Aug.28-Sept.1, 2011
105. Keen, O. and Linden, K. (2011) "Degradation of antibacterial activity of erythromycin in wastewater by UV/H₂O₂ advanced oxidation." International Water Association Micropol and Ecotazard Conference, Sydney, Australia, July 11-13, 2011
106. Collins, J., Cotton, C., Dotson, A.D., Linden, K. (2011) "Advanced Treatment for Impaired Water Supplies: When Advanced Oxidation Systems are the Best Option", AWWA Annual Conference and Exhibition, Washington D.C., June 12-15, 2011
107. Linden, K.G., Scheible, K., Chen, C., Shin, G-A., Lee, J-K., Posy, P. (2011) "Demonstrating 4-log Adenovirus Inactivation in a Medium Pressure UV Reactor" International UV Association World Congress and Exhibition, Paris, France, May 22-25, 2011
108. Salvesson, A., Goel, N., Mackey, E., Kehoe, P., Rhodes, S., Kothari, M., Beck, S., Rodriguez, R., Linden, K.G. (2011) "Characterization of Graywater and Analysis of Treatment Requirements to bring to Title 22 Reuse Standards" 15th Annual Water Reuse and Desalination Conference, Water Reuse Foundation, Las Vegas, NV. May 16-17, 2011
109. Bounty, S., Martin, L., Linden, K.G. (2011) "Inactivation of Adenovirus using Low Dose UV/H₂O₂ Advanced Oxidation", AWWA Rocky Mountain Section Student Conference, May 17, 2011 (Third Place Student Paper Award)
110. Dotson, A.D., Linden, K.G. (2011) "Drinking Water Treatment: Applications of UV", Alaska Water and Wastewater Association, Anchorage, AK April 26, 2011
111. Linden, K. Posy, P. (2011) "Can UV Protect the Public from Adenovirus in Drinking Water?" Disinfection 2011, Water Environment Federation, Cincinnati Ohio, April 10-12, 2011
112. Keen, O., Baik, S., Stadler, L., Linden, K., Aga, D. and Love, N. (2011) "Assessing the use of advanced oxidation and biofiltration to remove recalcitrant pharmaceuticals downstream of biological treatment." The 22nd Triennial Symposium on

Advancements in Water & Wastewater 2011 Borchardt Conference, Ann Arbor, MI, Feb.23-24, 2011

113. Barstow, C., Dotson, A., Linden, K.G. (2010) "POU UV Disinfection: Shedding Light on Appropriate Technologies for Developing Communities" Proceedings Water Quality Technology Conference, Savannah, GA, November 14-17, 2010. American Water Works Association, Denver, CO.
114. Dotson, A., Rowley, C., Downs, M., Corwin, C. Linden, K.G. (2010) "UV/H₂O₂: Dynamics of quenching hydrogen peroxide by GAC" Proceedings Water Quality Technology Conference, Savannah, GA, November 14-17, 2010. American Water Works Association, Denver, CO.
115. Lyon, B., Weinberg, H., Dotson, A., Linden, K.G. (2010) "Surrogate Measures for Evaluating Combined UV-Chlorine/Chloramine Drinking Water Treatment", Proceedings Water Quality Technology Conference, Savannah, GA, November 14-17, 2010. American Water Works Association, Denver, CO.
116. Cotton, C., Dotson, A., Jousset, S., Linden, K. Collins, J. (2010) "Applying UV AOP at an Existing WTP: Effects on Disinfection Strategy and DBP Formation" Proceedings Water Quality Technology Conference, Savannah, GA, November 14-17, 2010. American Water Works Association, Denver, CO.
117. Linden, K.G., Eischeid, A., Thurston, J. (2010) "Enhancing the UV Inactivation of Adenoviruses in Reclaimed Water" WaterReuse Research Conference, WaterReuse Research Foundation, Tampa, FL, May 25, 2010
118. McClelland, C.J., Linden, K.G., Drewes, J., Khan, S., Smith, J., Raucher, B. (2010) "Water Reuse 2030: Identifying Challenges" WaterReuse Research Conference, WaterReuse Research Foundation, Tampa, FL, May 25, 2010
119. Dotson, AD; Linden, KG, (2009) "Effect of advanced oxidation (UV/H₂O₂) followed by chlorination on the formation of disinfection by-products", Proceedings Water Quality Technology Conference, Seattle, WA, November, 2009. American Water Works Association, Denver, CO.
120. Bohrerova, Z; Linden, KG, (2009) "*E. coli* Repair under Water Treatment Conditions after Ultraviolet Light Disinfection", Proceedings IOA-IUVA North American Joint Conference, May, 2009, Cambridge, MA, International Ultraviolet Association
121. Eischeid, AC; Linden, KG, (2009) "Protein Damage in UV Treated Adenovirus", Proceedings Water Quality Technology Conference, Seattle, WA, November, 2009. American Water Works Association, Denver, CO.
122. Petri, B; Linden, K; Thurston, J, (2009) "UV Reactor Challenges with Adenovirus: A Comparison of Adenovirus and MS2 Inactivation in Low Pressure and Medium Pressure UV Reactors", Proceedings 5th UV World Congress, Amsterdam, The Netherlands, September, 2009, International Ultraviolet Association.
123. Shin, G-A; Lee, J-K; Linden, KG, (2009) "Enhanced Effectiveness of Medium-Pressure UV Lamps on Human Adenovirus and its Possible Mechanism", Proceedings 5th UV World Congress, Amsterdam, The Netherlands, September, 2009, International Ultraviolet Association.

124. Lyon, B; Weinberg, H; Dotson, A; Shah, A; Mitch, W; Linden, K, (2009) "Influence of Precursors on Byproducts Produced from UV-Chlorine/Chloramine Treatment of Natural Waters", Proceedings Water Quality Technology Conference, Seattle, WA, November, 2009. American Water Works Association, Denver, CO.
125. Shah, A; Dotson, AD; Linden, KG; Weinberg, H; Mitch, W, (2009) "Impact of UV Disinfection Combined with Chlorination/Chloramination on the Formation of Nitrogenous Disinfection Byproducts in Drinking Water", Proceedings IOA-IUVA North American Joint Conference, May, 2009, Cambridge, MA, International Ultraviolet Association.
126. McClelland, CJ; Linden, KG; Drewes, JE and Khan, S, (2009) "Water Reuse 2030: Identifying global challenges Australia and United States" REUSE 09, International Water Association, September 20-25, 2009 Brisbane Australia
127. Linden, K; Ruiz-Haas, P.; Bandy, J; Cho, K-D; Salveson, A; Thurston, J, (2009) Abstract: "Advanced treatment technologies for removal of pathogens and chemical pollutants for water reuse" 237th ACS NATIONAL MEETING & EXPOSITION – Salt Lake City, UT Environmental Chemistry Section, March 2009.
128. Petri, B; Linden, K; Thurston, J, (2009) "UV Reactor Challenges with Adenovirus: A Comparison of Adenovirus and MS2 Inactivation in Low Pressure and Medium Pressure UV Reactors" Proceedings, Water Environment Foundation, Disinfection 2009: Addressing the Full Spectrum of Global Disinfection Challenges 2/28-3/3, 2009, Atlanta, Georgia
129. Chatterley, C; Linden, KG, (2009) "UV-LED Irradiation Technology for Point-of-Use Water Disinfection" Proceedings, Water Environment Foundation, Disinfection 2009: Addressing the Full Spectrum of Global Disinfection Challenges 2/28-3/3, 2009, Atlanta, Georgia
130. Linden, K.G., Scheible, O.K., Shen, C., Shin, G-A., Lee, J-K., Posy, P. (2009) "Demonstrating 4-log Adenovirus Inactivation in a Medium Pressure UV Reactor" Proceedings, Water Environment Foundation, Disinfection 2009: Addressing the Full Spectrum of Global Disinfection Challenges 2/28-3/3, 2009, Atlanta, Georgia
131. Linden, K., Ruiz-Haas, R., Cho, K-D., Kulman, S. (2009) Presence, Fate and Treatability of Estro- and Androgenic Contaminants in Wastewater and Biosolids, Micropol and Ecohazard 2009, June 8-10, 2009, San Francisco, CA
132. Linden, K. Bandy, J., Thurston, J., Salveson, A. (2009) Advanced Disinfection Processes for Pathogen Control in Reuse Waters, WaterReuse Foundation Research Conference, Huntington Beach, CA May 18-19, 2009
133. Linden, K.G., Scheible, K., Chen, C., Shin, G-A., Lee, J-K., Posy, P. (2008) "Demonstrating 4-log Adenovirus Inactivation in a Medium Pressure UV Reactor" AWWA Annual Conference and Exhibition, Atlanta, GA June 8-11.
134. Eischeid, A.C., Meyer, J., Linden, K. (2008) "Fundamental Mechanisms in the Extreme UV Resistance of Adenoviruses" AWWA Water Quality Technology Conference, Cincinnati, OH Nov. 16-19.

135. Linden, K., Bandy, J., Thurston, J., Salveson, A. (2008) "Advanced Treatment Technologies and Processes for Removal of Pathogens and Chemical Pollutants for Water Reuse" 12th Annual Water Reuse and Desalination Research Conference, Denver, CO May 5-6, 2008.
136. Wade, T., Bandy, J., Linden, K., Salveson, A. (2008) "TiO₂ Photocatalysis for Trace Organics & Pathogen Destruction in Recycled Water" 12th Annual Water Reuse and Desalination Research Conference, Denver, CO May 5-6, 2008.
137. Thurston, J., Linden, K., and Salveson, A. (2008) "Occurrence and Disinfection of Adenoviruses in Reclaimed Waters" 12th Annual Water Reuse and Desalination Research Conference, Denver, CO May 5-6, 2008.
138. Barstow, C., Chatterley, C., Ashwood, W., Linden, K. (2008) University of Colorado Rwanda Project; EWB International Conference, March 27-30, 2008, Seattle, Washington.
139. Chatterley, C., Linden, K. (2008) "UV-LEDs for point-of-use water disinfection in developing communities", UCI/UNESCO Conference on Water Scarcity, Global Changes, and Groundwater Management Responses, December 1-5, 2008, Irvine, California.
140. Chatterley, C., Linden, K., (2008) "UV-LEDs for Point-of-Use Water Disinfection in Developing Communities; Energy Initiative Research Symposium, University of Colorado, Boulder, CO, November 17, 2008, presenter: Christie Chatterley
141. Eischeid, A., Linden K., (2008) "Direct Assessment of DNA Damage in UV-Treated Adenovirus Using PCR" Presented at the National Water Research Institute (NWRI) Graduate Student Research Fellowship Conference, Washington DC, April 2008.
142. Bandy, J.C., Linden, K.G. (2007) "Microbial Inactivation Using Current and Emerging Reuse Water Treatment Technologies" *Proceedings AWWA Water Quality Technology Conference*, Nov 4-8, Charlotte, NC
143. Ruiz-Haas, P., Cho, K-D., Linden, K.G. (2007) "Assessment of Advanced Treatment Technologies and Processes for Removal of Chemical Pollutants for Water Reuse" *Proceedings AWWA Water Quality Technology Conference*, Nov 4-8, Charlotte, NC
144. Cho, K-D., Ruiz-Haas, P., Linden, K.G., (2007) "Utilization of Estrogenic Screening Assays for Evaluating Innovative Technologies for Reuse Water Treatment" *Proceedings AWWA Water Quality Technology Conference*, Nov 4-8, Charlotte, NC
145. Dani, D., Summers, R.S., Linden, K.G., (2007) "Evaluating UV/H₂O₂ Performance for MIB and Geosmin Control" *Proceedings AWWA Water Quality Technology Conference*, Nov 4-8, Charlotte, NC
146. Eischeid, A.C., Meyer, J., Linden, K.G. (2007) "Fundamental Mechanisms in the Extreme UV Resistance of Adenovirus" *Proceedings AWWA Water Quality Technology Conference*, Nov 4-8, Charlotte, NC
147. Watts, M.J., Linden, K.G. (2007) "Photodegradation and Dehalogenation of Aqueous Flame Retardants and Plasticizers" *Proceedings AWWA Water Quality Technology Conference*, Nov 4-8, Charlotte, NC

148. Rosenfeldt, E.J., Linden, K.G. (2007) "Modeling UV/H₂O₂ Advanced Oxidation Processes in Water: The New ROH,UV Concept" *Proceedings AWWA Water Quality Technology Conference*, Nov 4-8, Charlotte, NC
149. Bandy, J.C., Ruiz-Haas, P., Cho, K-D., Salveson, A., Linden, K.G. (2007) "A Comparative Study of the Germicidal Effect of Current and Emerging Reuse Water Treatment Technologies" *Proceedings 22nd Annual WateReuse Symposium*, Tampa, FL, Sept 9-12, 2007
150. Salveson, A., Atapattu, K., Linden, K.G., Robinson, K., Bowman, R., Thurston, J., Cooper, R. (2007) "Innovative Treatment Technologies for Reclaimed Water: Ozone/Hydrogen Peroxide Pilot Test Report at DSRSD" *Proceedings 22nd Annual WateReuse Symposium*, Tampa, FL, Sept 9-12, 2007
151. Jain, S., Brown, J.C., Thurston, J., Linden, K.G., Pryor, M.A., Wade, T., Salveson, A.T. (2007) "Pilot Testing of UV and UV/Peroxide for Innovative Treatment of Reclaimed Water" *Proceedings 22nd Annual WateReuse Symposium*, Tampa, FL, Sept 9-12, 2007
152. Ruiz-Haas, P., Bandy, J.C., Cho, K-D., Salveson, A., Linden, K.G. (2007) "Advanced treatment technologies and processes for removal of chemical pollutants for water reuse: A comparative evaluation" *WateReuse Foundation Research Conference*, El Paso TX, June 2007
153. Rosenfeldt, E.J., Linden, K.G., Canonica, S., von Gunten, U. (2007) "Comparison of the efficiency of OH radical formation during ozonation and the Advanced Oxidation Processes O₃/H₂O₂ and UV/H₂O₂" *Proceedings 4th International Congress on Ultraviolet Technologies (IUVA)*, Los Angeles, CA, August 26-29, 2007
154. Ruiz-Haas, P., Cho, K.D. , Bandy, J., Salveson, A., Linden, K.G. (2007) "UV and advanced oxidation treatment based technologies for removal of chemical pollutants for water reuse" *Proceedings 4th International Congress on Ultraviolet Technologies (IUVA)*, Los Angeles, CA, August 26-29, 2007
155. Cho, K.D., Ruiz-Haas, P., Bandy, J., Linden, K.G. "Degradation of estrogenic disrupting compounds using UV and advanced oxidation processes" *Proceedings 4th International Congress on Ultraviolet Technologies (IUVA)*, Los Angeles, CA, August 26-29, 2007
156. Wu, C., Linden, K.G. (2007) "Photodegradation of Parathion: The role of carbonate radicals and hydroxyl radicals" *Proceedings 4th International Congress on Ultraviolet Technologies (IUVA)*, Los Angeles, CA, August 26-29, 2007
157. Mamane, H., Shemer, H., Linden, K.G. (2007) "Inactivation of *E. coli*, *B. subtilis* spores, and MS2, T4, and T7 phage using UV/H₂O₂ Advanced Oxidation" *4th International Congress on Ultraviolet Technologies (IUVA)*, Los Angeles, CA, August 26-29, 2007
158. Schaefer, R.B., Grapperhaus, M., Linden, K.G. (2007) "Status report on the development and use of pulsed UV technologies for treating water" *Proceedings 4th International Congress on Ultraviolet Technologies (IUVA)*, Los Angeles, CA, August 26-29, 2007

159. Thurston, J., Linden, K.G., Salveson, A. (2007) "Adenovirus occurrence in wastewater and reduction by reclaimed water treatment technologies" Proceedings 4th International Congress on Ultraviolet Technologies (IUVA), Los Angeles, CA, August 26-29, 2007
160. Linden, K.G., Thurston, J., Schaefer, R.B. (2007) "Enhanced UV disinfection of Adenoviruses with polychromatic UV irradiation" Proceedings 4th International Congress on Ultraviolet Technologies (IUVA), Los Angeles, CA, August 26-29, 2007
161. Linden, K.G., Scheible, K., Shen, C., Shin, G-A., Posy, P. (2007) "Full-scale validation of 4-log Adenovirus inactivation in medium pressure UV reactors" Proceedings 4th International Congress on Ultraviolet Technologies (IUVA), Los Angeles, CA, August 26-29, 2007
162. Watts, M.J., Rosenfeldt, E.J., Linden, K.G. (2007) "Chlorine photolysis and •OH radical production during UV treatment of chlorinated water" Proceedings 4th International Congress on Ultraviolet Technologies (IUVA), Los Angeles, CA, August 26-29, 2007
163. Salveson, A., Atapattu, K., Linden, K.G., Ruiz-Haas, P., Robinson, K., Bowman, R. (2007) "Reclaimed water disinfection with Ozone and Ozone/Ultraviolet light reactors" Proceedings 4th International Congress on Ultraviolet Technologies (IUVA), Los Angeles, CA, August 26-29, 2007
164. Hunter, G., Hulsey, R., Coughenour, J., Walz, T., Linden, K.G. (2007) "Out in the ozone. The return of ozone and the hydroxyl radical to wastewater disinfection" Proceedings 4th International Congress on Ultraviolet Technologies (IUVA), Los Angeles, CA, August 26-29, 2007
165. Bandy, J., Ruiz-Haas, P., Cho, K.D., Salveson, A., Linden, K.G. (2007) "A comparative study of the germicidal effect of current and emerging reuse water treatment technologies" Proceedings 4th International Congress on Ultraviolet Technologies (IUVA), Los Angeles, CA, August 26-29, 2007
166. Watts, M.J., Linden, K.G. (2007) "Photo-sensitized degradation of organophosphate plasticizers and flame retardants" Proceedings 4th International Congress on Ultraviolet Technologies (IUVA), Los Angeles, CA, August 26-29, 2007
167. Ruiz-Haas, P., Cho, K.D., Bandy, J., Salveson, A., Linden, K.G. (2007) "Assessment of advanced Treatment Technologies and Processes for Removal of Chemical Pollutants for Water Reuse" *Proceedings, AWWA Summer Specialty Conference – Emerging Contaminants of Concern in the Environment, Issues, Investigations and Solutions*. Vail, CO June 25-27, 2007
168. Watts, M.J., Rosefeldt, E.J., Linden, K.G. (2007) "Comparing UV-H₂O₂ and UV-HOCl/OCl⁻ Processes for Aqueous Nitrobenzene Photodegradation" Proceedings, AWWA Annual Conference and Exhibition, Toronto, ON, Canada June 24-28, 2007
169. Rosenfeldt, E.J., Linden, K.G., Canonica, S., von Gunten, U. (2007) "Comparing the efficiency of OH radical formation during ozonation and UV advanced oxidation processes" American Chemical Society National Meeting and Exposition, Chicago, IL, March 25-29, 2007

170. Ruiz-Haas, P., Cho, K.D., Bandy, J., Salveson, A., Linden, K.G. (2007) "Evaluation and Comparison of Advanced Treatment Processes for Removal of Chemical Pollutants during Water Reuse" American Chemical Society National Meeting and Exposition, Chicago, IL, March 25-29, 2007
171. Linden, K.G., Shemer, H., Reckhow, D.A., Makdissy, G. (2007) "Ultraviolet Light Induced Disinfection Byproducts: Realities and Challenges" *Disinfection 2007*, WEF, AWWA, WRF, Feb 5-7, Pittsburgh, PA, USA
172. Bohrerova, Z., Linden, K.G. (2007) "Comparison and Standardization of E.coli Photorepair Under Different Lamps" *Disinfection 2007*, WEF, AWWA, WRF, Feb 5-7, Pittsburgh, PA, USA
173. Mamane, H., Linden, K.G., Cabaj, A., Sommer, R. (2007) "Spectral Sensitivity of Bacillus subtilis Spores and MS2 Coliphage for Validation Testing of Ultraviolet Reactors for Water Disinfection" *Disinfection 2007*, WEF, AWWA, WRF, Feb 5-7, Pittsburgh, PA, USA
174. Jin, S., Sharpless, C.M., Linden, K.G., Kelly, R., Ferran, B. (2007) "Aging Evaluation of Medium-Pressure Mercury Lamps Under Typical Operating Conditions for Drinking Water Disinfection Applications" *Disinfection 2007*, WEF, AWWA, WRF, Feb 5-7, Pittsburgh, PA, USA
175. Rosenfeldt, E.J., Kullman, S.W., Linden, K.G. (2006) "UV/H₂O₂ Degradation of E2 and EE2 in Water Evaluated via the yes Toxicity Assay" *AWWA Water Quality Technology Conference*, Nov 5-9, Denver CO.
176. Rosenfeldt, E.J., Kullman, S.W., Linden, K.G. (2006) "Removal of Estrogenic Activity within Water Treatment Plants" *AWWA Water Quality Technology Conference*, Nov 5-9, Denver CO.
177. Kashinkunti, R., Awad, J., Metz, D.H., DeMarco, J., Malley, Jr., J.P., Linden, K.G., Reckhow, D. (2006) "UV/Cl₂: Looking Beyond Conventional DBPs", *AWWA Water Quality Technology Conference*, Nov 5-9, Denver CO.
178. Simmons, O., Linden, K., Sobsey, M.D., Dubey, J.P. (2006) "UV Disinfection of *Toxoplasma gondii* oocysts in water", *AWWA Water Quality Technology Conference*, Nov 5-9, Denver CO.
179. Bohrerova, Z., Lantis, R., Impletterri, C., Linden, K.G. (2006) "Pulsed UV: Realities of Enhanced Disinfection", *AWWA Water Quality Technology Conference*, Nov 5-9, Denver CO.
180. Mamane, H., Shemer, H. Linden, K.G. (2006) "Advanced Oxidation of Viruses and Microorganisms" Proceedings, AOP Conference, Greece
181. Rosenfeldt, E.J., Kullman, S.W., Linden, K.G. (2006) "UV/H₂O₂ Degradation of EDCs in Water Evaluated via Toxicity Assays" 4th IWA Specialist Conference Oxidation Technologies for Water and Wastewater Treatment May 15-17, 2006, Goslar Germany
182. Linden, K.G., Rosenfeldt, E.J., Chen, P.J., Kullman, S.W. (2005) "Assessment of estrogenic activity following UV and UV/H₂O₂ degradation of endocrine disrupting

- chemicals in water” *Pacificchem: Environmental and Green Chemistry Free Radical Chemistry in the Environment*, Honolulu, Hawaii, December 2005.
183. Shemer, H., Sharpless, C.M., Suffet, I.H., Linden, K.G. (2005) “Relative reactivity of selected EPA contaminant candidate list chemicals towards hydroxyl radicals” *Pacificchem: Environmental and Green Chemistry Free Radical Chemistry in the Environment*, Honolulu, Hawaii, December 2005.
 184. Pereira, V.J., Linden, K.G., Weinberg, H.S. (2005) “Photodegradation of pharmaceutical and contrast media agents in surface water by direct photolysis and UV advanced oxidation processes” Proceedings, *AWWA Water Quality Technology Conference*, Quebec City, Quebec Canada, November 2005
 185. Sharpless, C.M., Ijpelaar, G.F., Harmsen, D., Linden, K.G. (2005) “Development of an Online UV Dosimeter” Proceedings, *AWWA Water Quality Technology Conference*, Quebec City, Quebec Canada, November 2005
 186. Chen, W., Wu, C., Linden, K.G., Suffet, I.H. (2005) “Ozonation of Polar Thiocarbamate and Urea Herbicides, Triazines and Substituted Benzenes on EPA Drinking Water Contaminant Candidate List” Proceedings, *AWWA Water Quality Technology Conference*, Quebec City, Quebec Canada, November 2005
 187. Shemer, H., Sharpless, C.M., Suffet, I.H., Linden, K.G. (2005) “Relative reactivity of Contaminant Candidate List pesticides to OH radical oxidation” Proceedings, *AWWA Water Quality Technology Conference*, Quebec City, Quebec Canada, November 2005
 188. Bohrerova, Z., Bohrer, G., Mohan, M., Ducoste, J.J., Linden, K.G. (2005) “Experimental Measurements of Fluence Distribution in a UV Reactor Using Fluorescent Dyed Microspheres” Proceedings, *AWWA Water Quality Technology Conference*, Quebec City, Quebec Canada, November 2005
 189. Chen, P.J., Kullman, S.W., Hinton, D., Linden, K.G. (2005) “Biological Assessments of Bisphenol A in Water following Direct Photolysis and UV Advanced Oxidation Processes” Proceedings, *AWWA Water Quality Technology Conference*, Quebec City, Quebec Canada, November 2005
 190. Saunders, H., Linden, K.G., Sobsey, M.D. (2005) “Inactivation of Adenovirus type 5 by Low and Medium Pressure UV Radiation” Proceedings, *AWWA Water Quality Technology Conference*, Quebec City, Quebec Canada, November 2005
 191. Linden, K.G., Rosenfeldt, E.J., Chen, P.J., Kullman, S.W. (2005) “UV and UV/H₂O₂ degradation and subsequent estrogenic activity of endocrine disrupting chemicals in water” Awwa Annual Conference and Exhibition, San Francisco, CA June 2005.
 192. Bohrerova, Z., Mamane-Gravetz, H., Linden, K.G., Grapperhaus, M., Schaefer, R. (2005) “Comparative inactivation of *Bacillus subtilis* spores and MS2 bacteriophage using standard mercury lamps and a new, pulsed Surface Discharge UV lamp” 3rd International Congress on Ultraviolet Technologies (IUVA). Whistler, BC, Canada, May 2005
 193. Shemer, H., Linden, K.G., Grapperhaus, M., Schaefer, R. (2005) “Pulsed UV enhanced photodegradation of atrazine in drinking water” 3rd International Congress on Ultraviolet Technologies (IUVA). Whistler, BC, Canada, May 2005

194. Pereira, V.J., Linden, K.G., Weinberg, H.S. (2005) "Direct photolysis and UV advanced oxidation processes of pharmaceuticals in surface water" 3rd International Congress on Ultraviolet Technologies (IUVA). Whistler, BC, Canada, May 2005
195. Rosenfeldt, E.J., Linden, K.G. (2005) "The $R_{OH,UV}$ concept to characterize and model UV/H₂O₂ processes in natural waters" 3rd International Congress on Ultraviolet Technologies (IUVA). Whistler, BC, Canada, May 2005
196. Wu, C., Shemer, H., Linden, K.G. (2005) "UV photodegradation of Metolachlor", 3rd International Congress on Ultraviolet Technologies (IUVA). Whistler, BC, Canada, May 2005
197. Watts, M.J., Linden, K.G. (2005) "Fundamentals of Monochloramine and Free Chlorine decay under UV Irradiation", 3rd International Congress on Ultraviolet Technologies (IUVA). Whistler, BC, Canada, May 2005
198. Linden, K.G. Johnson, S. Moore, A. and Malley, J.P. (2005). "Importance of wavelength for UV inactivation of adenovirus in water", 3rd International Congress on Ultraviolet Technologies (IUVA). Whistler, BC, Canada, May 2005
199. Mamane-Gravetz, H. and Linden, K.G. (2005) "Impact of Particles on UV Light Penetration in Natural and Engineered Systems", 3rd International Congress on Ultraviolet Technologies (IUVA). Whistler, BC, Canada, May 2005.
200. Bohrerova, Z., Linden, K.G. (2005) "Molecular Based Assessments of Inactivation and Photorepair of *Mycobacterium terrae* following UV Disinfection" *Proceedings, WEF Disinfection 2005*, Phoenix, AZ, February 6-9, 2005
201. Mamane-Gravetz, H., Linden, K.G. (2005) "Impact of Particle Aggregated Microbes and Particle Scattering on UV Disinfection" *Proceedings, WEF Disinfection 2005*, Phoenix, AZ, February 6-9, 2005
202. Ducoste, J.J., Liu, D., Linden, K.G., Mamane-Gravetz, H. and Bohrerova, Z. (2005) "Impact of influent pipe configuration on UV reactor performance: Is the elbow truly the worst case hydraulic condition?" *Proceedings, WEF Disinfection 2005*, Phoenix, AZ, February 6-9, 2005
203. Schaefer, R., Grapperhaus, M. Linden, K.G., Bohrerova, Z., Mamane, H. (2005) "Improved Disinfection with a New Pulsed UV Lamp" *WEF/AWWA Disinfection 2005*, Phoenix, AZ, February 6-9, 2005
204. Eischeid, A., Linden, K.G. (2004) "Effect of Wavelength on Efficiency of DNA Damage During UV Disinfection of *E. coli*" *Proceedings, AWWA Water Quality Technology Conference*, San Antonio TX, November 14-17, 2004
205. Mamane-Gravetz, H., Linden, K.G. (2004) "Impact of Particle-Aggregated Microbes on UV Disinfection" *Proceedings, AWWA Water Quality Technology Conference*, San Antonio TX, November 14-17, 2004
206. Ducoste, J.J., Linden, K.G., Rokjer, D. (2004) "Numerical Prediction of the Reduction Equivalent Fluence Bias," *Proceedings, AWWA Water Quality Technology Conference*, San Antonio TX, November 14-17, 2004

207. Rosenfeldt, E.J., Linden, K.G., Canonica, S., von Gunten, U. (2004) "Comparative Efficiency of OH Radical Formation by Ozone and UV Processes: Impact for Contaminant Treatment" Proceedings, *AWWA Water Quality Technology Conference*, San Antonio TX, November 14-17, 2004
208. Linden, K.G., Rosenfeldt, E.J., Chen, P.J., Kullman, S.W. (2004) "UV and UV/H₂O₂ degradation and subsequent toxicity of endocrine disrupting chemicals in water" *European Conference on UV Radiation*, Karlsruhe, Germany Sept 22-24, 2004
209. Pereira, V.J., Linden, K.G., Weinberg, H.S. (2004) "Photodegradation of pharmaceutical and contrast media agents in surface water by direct photolysis and UV advanced oxidation processes" *National Ground Water Association 4th International Conference on Pharmaceuticals and Endocrine Disrupting Chemicals in Water*, Minneapolis, MN, October 13-15, 2004
210. Mamane-Gravetz, H., Linden K.G. (2004) "UV disinfection of indigenous aerobic spores for UV reactor validation" *AWWA Annual Conference and Exhibition*, Orlando, FL, June 13-16, 2004.
211. Kashinkunti, R., Linden, K.G., Shin, G-A. et al. (2004) "UV inactivation of emerging pathogens" *AWWA Annual Conference and Exhibition*, Orlando, FL, June 13-16, 2004.
212. Linden, K.G., Bolton, J.R., Malley, J.P., Mofidi, A.A., Stefan, M.I. (2003) "Benchmarking UV collimated beam testing: Inter-laboratory comparison of the UV sensitivity of MS2 coliphage", Proceedings, *AWWA Water Quality Technology Conference*, Philadelphia, PA, November 2-6, 2003.
213. Sharpless, C.M., Siddiqui, M., Atasi, K.Z. (2003) "UV treatment of atrazine: Effect of water quality", Proceedings, *AWWA Water Quality Technology Conference*, Philadelphia, PA, November 2-6, 2003.
214. Linden, K.G., Sharpless, C.M, Chen, W.R., Suffet, I.H. (2003) "Processes for the treatment of Candidate Contaminant List (CCL) chemicals", Proceedings, *AWWA Water Quality Technology Conference*, Philadelphia, PA, November 2-6, 2003.
215. Rosenfeldt, E. and Linden, K.G. (2003) "UV and UV/H₂O₂ degradation of endocrine disrupting chemicals in water: modeling and byproduct analysis", Proceedings, International UV Association 2nd International Congress on UV Technologies .Vienna, Austria. ***Award for Best Student Paper***
216. Hulse, R. Neeman, J., Mackey, H., Ducoste, J., Linden, K.G., (2003) "Integrating UV into large water treatment plants", Proceedings, International UV Association 2nd International Congress on UV Technologies.
217. Shin, G-A, Linden, K.G., Dubay, J.P., Sobsey, M.D. (2003) "Inactivation of *Toxoplasma gondii* oocysts by UV irradiation", Proceedings, International UV Association 2nd International Congress on UV Technologies.
218. Ducoste, J., Liu, D, Linden, K.G. (2003) "Evaluation of UV fluence rate distribution models", Proceedings, International UV Association 2nd International Congress on UV Technologies.

219. Sharpless, C.M., Neofotistos, P., Ferran, B., Linden, K.G. (2003) "Spectral distribution of UV light during aging of medium pressure UV lamps", Proceedings, International UV Association 2nd International Congress on UV Technologies.
220. Ormeci, B., Linden, K.G. (2003) "Inactivation and detection of particle associated bacteria", Proceedings, International UV Association 2nd International Congress on UV Technologies.
221. Chen, W.R., Sharpless, C.M., Linden, K.G., Suffet, I.H. (2003) "Treatment of Volatile Organic Chemicals (VOCs) on the EPA Contaminant Candidate List (CCL) Using Ozonation", Proceedings, International Ozone Association Annual conference, Las Vegas, NV, Sept 2003.
222. Chen, W.R., Sharpless, C.M., Linden, K.G., Suffet, I.H. (2003) "Treatment of Organophosphate Pesticides on the EPA Contaminant Candidate List Using Ozonation", Proceedings, International Ozone Association Annual conference, Las Vegas, NV, Sept 2003.
223. Sharpless, C.M., Siebold, D., Linden, K.G. (2003) "Nitrate photosensitized degradation of atrazine during UV water treatment", Proceedings, 225th American Chemical Society National Meeting, New Orleans, LA. March 23-27, 2003. ***Received an "Award of Excellence" for high quality and significance to the Division of Environmental Chemistry***
224. Kashinkunti, R.D., Metz, D.H., Linden, K.G., Sobsey, M.D., Moran, M., Samuelson, A. "Microbial Inactivation Strategies for the Future: UV, Chlorine, and DBPs" *Proceedings, AWWA Water Quality Technology Conference*, Seattle, WA, November 10-14, 2002.
225. Liu, W., Andrews, S.A., Sharpless, C.M., Stefan, M., Linden, K.G., Bolton, J.R. "Bench-Scale Investigations into Comparative Evaluation of DBP Formation from Different UV/H₂O₂ Technologies" *Proceedings, AWWA Water Quality Technology Conference*, Seattle, WA, November 10-14, 2002.
226. Stefan, M., Siddiqui, M., Atasi, K., Linden, K.G., "Impact of Water Quality Characteristics on the Kinetic Parameters of NDMA Photo-Degradation" *Proceedings, AWWA Water Quality Technology Conference*, Seattle, WA, November 10-14, 2002.
227. Linden, K.G., Rosenfeldt, E.J., Johnson, S., Melcher, B. "Direct UV and UV Oxidation Processes for Treatment of Taste and Odor Causing Compounds in Water" *Proceedings, AWWA Water Quality Technology Conference*, Seattle, WA, November 10-14, 2002.
228. Jin, S., Linden, K.G. "Determination of fluence rate distribution in UV reactors using spherical actinometry and mathematical analysis approaches" *Proceedings, AWWA Water Quality Technology Conference*, Seattle, WA, November 10-14, 2002.
229. Shin, G-A, Ishida, G. Linden, K.G., Sobsey, M.D. "Inactivation of Adenovirus, *Cryptosporidium parvum* oocysts and *Salmonella typhimurium* by sequential disinfection with UV radiation and free or combined chlorine" *Proceedings, AWWA Water Quality Technology Conference*, Seattle, WA, November 10-14, 2002

230. Mofidi, A., Rochelle, P., Chou, C., Mehta, H., Malley, J., Linden, K. "Bacterial Survival After Ultraviolet Light Disinfection: Resistance, Regrowth, and Repair" *Proceedings, AWWA Water Quality Technology Conference*, Seattle, WA, November 10-14, 2002
231. Ducoste, J., Linden, K.G. "An Alternative Approach to Determining Dose Distribution and Microbial Inactivation in UV Reactors using Computational Fluid Dynamics (CFD)", *Proceedings, AWWA Annual Conference and Exhibition*, New Orleans, LA, June 16-20, 2002.
232. Christensen, J., Linden, K.G. "New Findings Regarding the Impacts of Suspended Particles on UV Disinfection of Drinking Water" *Proceedings, AWWA Annual Conference and Exhibition*, New Orleans, LA, June 16-20, 2002.
233. Linden, K.G., Batch, L., Schulz, C. "UV disinfection of filtered water supplies: Water Quality Impacts on MS2 Dose-Response Curves" *Proceedings, AWWA Annual Conference and Exhibition*, New Orleans, LA, June 16-20, 2002.
234. Linden, K.G. and Ormeci, B. "Comparison of UV and Chlorine Inactivation of Particle and Non-Particle-Associated Coliform", *Proceedings, IWA Enviro 2002 – World Water Congress*, Melbourne, Australia, April 7-12, 2002
235. Linden, K.G. and Ormeci, B. "Comparative Effectiveness of UV and Chlorine for Inactivation of Particle Associated Coliform", *Proceedings, WEF Disinfection 2002*, St. Petersburg FL, February 17-20, 2002
236. Bolton, J.R. and Linden, K.G. "Determination of Fluence (UV Dose) in a Bench-scale Collimated Beam Apparatus for Monochromatic and Broadband UV Lamps" *Proceedings, AWWA Water Quality Technology Conference*, Nashville, TN, November 11-14, 2001
237. Shin, G., Linden, K.G., Sobsey, M.D. "Low Pressure UV Inactivation of Pathogenic Enteric Viruses and Bacteriophages", *Proceedings, AWWA Water Quality Technology Conference*, Nashville, TN, November 11-14, 2001
238. Sharpless, C.M., Chou, C., Mofidi, A.A., and Linden, K.G. "N-Nitrosodimethylamine Removal From Drinking Water By UV-Treatment: A Direct Comparison of Different UV Technologies" *Proceedings, AWWA Water Quality Technology Conference*, Nashville, TN, November 11-14, 2001
239. Cotton, C., Linden, K.G., Schmelling, D., Bell, C., Darnault, C. "The Development, Application, and Cost Implications of the UV Dose Tables for LT2ESWTR Compliance", *Proceedings, AWWA Water Quality Technology Conference*, Nashville, TN, November 11-14, 2001
240. Rochelle, P.A.; Mofidi, A.A.; Linden, K.G.; & De Leon, R. (2001) "Measuring Inactivation of *Cryptosporidium parvum* by In-Vitro Cell Culture." In Proc., *Cryptosporidium: From Molecules to Disease*. Perth, Australia. October 2001.
241. Christensen, J. and Linden, K.G. "Ultraviolet Disinfection of Unfiltered Drinking Water: Particle Impacts" *Proceedings of the First International Congress on UV Technologies*, International Ultraviolet Association, Washington DC, June 14-16, 2001.

242. Jin, S. and Linden, K.G. "Advances in UV Dose Measurement Using Chemical Actinometry, Biodosimetry, and Mathematical Techniques, *Proceedings, AWWA Annual Conference and Exhibition*, Washington DC, June 17-21, 2001.
243. Jin, S., Chou, C., Mofidi, A.A., Linden, K.G. "Comparative analysis of UV dose measurement using chemical actinometry, biodosimetry, and mathematical techniques" *Proceedings of the First International Congress on UV Technologies*, International Ultraviolet Association Washington DC, June 14-16, 2001.
244. Ormeci, B., Ishida, G., and Linden, K.G. "Impact of Chlorine and Monochlorine on UV light disinfection" *Proceedings of the First International Congress on UV Technologies*, International Ultraviolet Association Washington DC, June 14-16, 2001.
245. Schaefer, R. and Linden, K.G. "Innovative Ultraviolet Light Source for Disinfection of Drinking Water", *Proceedings of the First International Congress on UV Technologies*, International Ultraviolet Association Washington DC, June 14-16, 2001
246. Sharpless, C.M. and Linden, K.G. "A Comparison Of Monochromatic Versus Polychromatic Hg Lamps For Direct Photolysis and H₂O₂ Assisted UV Degradation Of N-Nitrosodimethylamine, *Proceedings of the First International Congress on UV Technologies*, International Ultraviolet Association Washington DC, June 14-16, 2001.
247. Sharpless, C.M. and Linden, K.G. "Nitrite Formation Potential During Medium Pressure UV Disinfection of Drinking Water" *Proceedings, AWWA Annual Conference and Exhibition*, Washington DC, June 17-21, 2001.
248. Shin, G., Arrowood, M., Faubert, G., Linden, K.G., Sobsey, M.D. "DNA repair of UV-irradiated *Cryptosporidium parvum* oocysts and *Giardia lamblia* cysts" *Proceedings of the First International Congress on UV Technologies*, International Ultraviolet Association Washington DC, June 14-16, 2001.
249. Stefan, M., Sharpless, C.M., Linden, K.G., Bolton, J.R. "Degradation of Atrazine in a Bench-scale Collimated Beam Apparatus using Low- and Medium-Pressure UV Lamps", *Proceedings, AWWA Water Quality Technology Conference*, Nashville, TN, November 11-14, 2001
250. Linden, K.G., Krupa, K. and Harden, C. "Optimization and performance of a trickling filter for treatment of snack food processing plant wastewater" *Proceedings, WEFTEC 2000, 73rd Annual Conference and Exposition on Water Quality and Wastewater Treatment*, Anaheim, CA, October 14-18, 2000.
251. Shin, G.A., Linden, K.G., Faubert, G., and Sobsey, M.D. "Inactivation of *Cryptosporidium* and *Giardia* with low pressure UV light" *Proceedings, Water Quality Technology Conference*, AWWA, Salt Lake City, UT. November 4-8, 2000
252. Linden, K.G., Shin, G.A., and Sobsey, M.D. "Comparison of monochromatic and polychromatic UV light for disinfection efficacy" *Proceedings, Water Quality Technology Conference*, AWWA, Salt Lake City, UT. November 4-8, 2000
253. Linden, K.G. "Application of UV disinfection for water treatment" *Proceedings, 2000 Annual Conference of the North Carolina Section of AWWA/WEA*, Charlotte, North Carolina, November 12-14, 2000.

254. Linden, K.G. "Evaluating germicidal dose from UV sources with actinometry – theoretical considerations" Proceedings, *International Conference on Applications of Ozone, International Ozone Association, at Wasser Berlin*, Berlin Germany, October 23-26, 2000.
255. Linden K.G. "Applications of chemical actinometry for measurement of polychromatic UV irradiance" Proceedings, *Advanced Oxidation Technologies International Congress*, London, Ontario, Canada, June 26-30, 2000
256. Linden, K.G. "UV Dose Verification Using Chemical Actinometry and Biodosimetry Methods" Proceedings, *UV 2000 Technical Symposium, National Water Research Institute*, Costa Mesa, CA January 27-28, 2000
257. Linden, K.G. "Disinfection Efficiency and Dose Measurement Considerations for UV Disinfection" Proceedings, *AWWA Research Foundation Technology Transfer Conference Advancing the Science of Water Ultraviolet Disinfection: The Known and the Unknown*, Walnut Creek, CA, May 16, 2000
258. Linden, K.G., Shin, G.A., and Sobsey, M.D. "Relative efficacy of UV wavelengths for the inactivation of *Cryptosporidium parvum*" Proceedings, *Disinfection 2000, WEF Specialty Conference*, New Orleans, LA. March 15-17, 2000.
259. Shin, G.A. Linden, K.G., and Sobsey, M.D. "Comparative inactivation of *Cryptosporidium parvum* oocysts and coliphage MS-2 by monochromatic UV radiation" Proceedings, *Disinfection 2000, WEF Specialty Conference*, New Orleans, LA. March 15-17, 2000.
260. Linden, K.G. and A.A. Mofidi. "Measurement of UV irradiance: tools and considerations", *Proceedings, Water Quality Technology Conference*, AWWA, Tampa Bay, FL. November 1-3, 1999.
261. Shin, G., Linden, K.G., and Sobsey, M.D. (1999) "Inactivation of *Cryptosporidium* oocysts with low pressure UV radiation", *Proceedings, Water Quality Technology Conference*, AWWA, Tampa Bay, FL., Nov 1-3, 1999.
262. Linden, K.G. et al. "Investigation of disinfection byproduct formation following low and medium pressure UV irradiation of wastewater" *Disinfection Specialty Conference Proc.*, WEF, Baltimore, MD. April, 1998.
263. Linden, K.G. and J.L. Darby, "Measuring UV absorbance of marginal effluents: Impact on UV dose estimation". *Proc., Water Environmental Federation 70th Ann. Conf. and Exhib.*, Chicago, IL. Oct., 1997.
264. Linden, K.G. and J.L. Darby, "Estimating effective germicidal UV dose from medium pressure UV lamps using mathematical, bioassay, and chemical actinometry approaches". *Proc., Joint ASCE/CSCE Environmental Engineering Conference*, Edmonton, Canada. July, 1997.
265. Linden(auer), K.G. and J.L. Darby. "Evaluation of ultraviolet light disinfection: significance of photoreactivation," *Disinfection Specialty Conference Proc.*, Water Environment Federation, May 1993.

Other Publications

1. Blatchley, E.R., Brenner, D., Claus, H., Cowan, T.E., Linden, K.G., Liu, Y., Mao, T., Park, S-J., Piper, P.J., Simons, R., Sliney, D., (2021) Far UV-C Radiation: Current State-of Knowledge, White Paper, International Ultraviolet Association (IUVA) <https://iuva.org/resources/covid-19/Far%20UV-C%20Radiation-%20Current%20State-of%20Knowledge.pdf>
2. [Need updates for 2016-20]
3. K. Linden, H. Wright, J. Collins, C. Cotton, S. Beck. 2015. Guidance for Implementing Action Spectra Correction with Medium Pressure UV Disinfection. Water Research Foundation.
4. Bolton, J., Beck, S., Linden, K. 2015. Protocol for the Determination of Fluence (UV Dose) Using a Low- Pressure or Low-Pressure High-Output UV Lamp in Bench-Scale Collimated Beam Ultraviolet Experiments. IUVA News. 17(1), 11-16.5
5. Invited *Book Chapter*: Linden, K.G., Mamane, H. (2015) Ultraviolet Disinfection Process Concepts and Equipment Systems: in Ultraviolet Disinfection for Wastewater—Low-Dose Application Guidance for Secondary and Tertiary Discharges. Water Environment Federation (WEF) Alexandria, VA.
6. Invited *Book Chapter*: Linden, K.G., Mohseni, M. (2013) Advanced Oxidation Processes: Applications in Drinking Water Treatment. International Water Association (IWA) Elsevier, London.
7. Invited *Book Chapter*: Swaim, P.D., Cotton, C.A., Linden, K.G. (2013) Ultraviolet Disinfection. AWWA Water Treatment Plant Design, McGraw Hill
8. Linden, K. and Dotson, A. *UV-Based Advanced Oxidation Treatment of Pre- and Post-GAC Contacted Water*. Water Research Foundation Report, July 2012
9. Linden, K., Dotson, A., Weinberg, H., Lyon, B., Mitch, W., and Shah, A. *Impact of UV Location and Sequence on Byproduct Formation*. Water Research Foundation Report, June 2012
10. Linden K.G., Keen, O.S., Love, N.G. and Aga, D. S. (2011) Demonstrating advanced oxidation coupled with biodegradation for removal of carbamazepine. WERF Final Report for project INFR6SG09
11. Invited *Book Chapter*: Chapter 9. Ultraviolet and Pulsed White Light Treatment (2011) Vicente Gomez, Tatiana Kouchma and Karl Linden. In Novel and Non-Thermal Technologies for Fluid Foods Food Science and Technology International
12. Invited *Book Chapter*: Chapter 18. UV Water Treatment Technologies (2012) Karl Linden and Erik Rosenfeldt. In Water Quality and Treatment AWWA.
13. “New Water Plant will use Ultraviolet Light” (2010) as quoted in Cincinnati Enquirer, Dec 31, 2010
14. “Water System Adding UV Disinfection” (2010) as quoted in Cincinnati.com, Dec 30, 2010

15. "Chemists are taking to web tools to fulfill 'broader impact' requirement in NSF grants" (2010) Featured in *Chemical and Engineering News*, Nov. 29, 2010.
16. "CU-Boulder team to study Gulf of Mexico spill chemicals" Featured in the *Denver Business Journal* and picked up by other newspapers in the area, July 22, 2010.
17. "CU scientists to study fate of oil dispersants in the Gulf" Featured in the *Boulder Daily Camera*, July 22, 2010.
18. KGNU Environmental News story: Interviewed together with Dr. Fernando Rosario to discuss work with chemical dispersants, August 2010
19. Invited *Book Chapter*: Chapter 1. Ozonation, UV and Advanced Oxidation Processes (AOPs) (2009) Karl Linden. In *Emerging Problems: Organic Byproducts of Potential Health Concern Produced During Drinking Water Treatment*; AwwaRF and Suez-Environnement
20. Shah, Amisha D; Dotson, Aaron A; Linden, Karl G; Weinberg, Howard S; Mitch, William A, "Impact of UV Disinfection Combined with Chlorination/Chloramination on the Formation of Nitrogenous Disinfection Byproducts in Drinking Water", *IUVA News*. 2009, v.11, n.3, 20–26.
21. "Portable UV treatment of water" (2007) as quoted in *National Geographic Traveler*, October 2007.
22. "Water Treatment Revolution" (2007) Guest Editorial in *ASCE Journal of Environmental Engineering*, Feb 2007.
23. US EPA (2006) "UV Disinfection Guidance Manual" Contributing Author. <http://www.epa.gov/safewater/disinfection/lt2/compliance.html>
24. Linden, K.G. (2005) "Hazard from New Orleans Floodwaters Could Spread Widely", Op-Ed published in the *News & Observer* Sept. 9, 2005
25. Interviewed by Elizabeth Shogren National Public Radio for a Hurricane Flood Waters Story (Sept. 9, 2005)
26. Interviewed by the New York Times, Felicity Barringer for a Hurricane Flood Waters Story (Sept. 13, 2005)
27. Interviewed live on WBT News Talk 1110 AM, Charlotte's Morning News Weekend, With Don Russell (Sept. 18, 2005)
28. Featured in "Environmental Impact on Texas Unknown" By Scott Streater Ft. Worth Star Telegram (Sept 20, 2005)
29. Featured in "Natural Buffers Took a Beating" By Juliet Eilperin The Washington Post, (Sept 21, 2005)
30. Featured in "Latest Flood Makes Cleanup Even Harder" By Scott Streater Ft. Worth Star Telegram (Sept 28, 2005)
31. Featured in "Clean Water on Tap: Tool Improves Treatment", By Sharon Lem, The Toronto Sun (Nov 14, 2005)

32. Featured in "New Method for Validating UV Disinfection Systems Shows Promise" by Jay Landers, Civil Engineering Magazine (Jan. 2006, Vol. 76 No. 1).
33. Linden, K.G. (2005) "Water supply engineering " in McGraw-Hill Encyclopedia of Science & Technology. Revised existing article for 2006-7 version.
34. Linden, K.G. (2005) "Water treatment" in McGraw-Hill Encyclopedia of Science & Technology. Revised existing article for 2006-7 version.
35. Rosenfeldt, E.J. and Linden, K.G. (2004) "Removing Endocrine Disruptors from Drinking Water – An Alternative Treatment Scheme Using Ultraviolet Light" in Environmental Contaminants: Assessment and Control by Daniel A. Vallero, Elsevier, Boston, MA.
36. Linden, K.G., Sharpless, C.M., Andrews, S.A., Atasi, K., Stefan, M., Suffet, I.H. (2004) "Innovative UV Technologies to Oxidize Organic and Organoleptic Chemicals" Final Report: Awwa Research Foundation, Denver, CO
37. Malley, J.P., Linden, K.G., Mofidi, A.A. (2004) "Inactivation of Pathogens with Innovative UV Technologies" Final Report: Awwa Research Foundation, Denver, CO
38. Linden, K.G., Oliver, J.D., Sobsey, M.D., Shin, G-A (2004) "Fate and Persistence of Pathogens Subjected to Ultraviolet Light and Chlorine Disinfection" Final Report: Water Environment Research Foundation, Alexandria, VA
39. Risinit, M. 2004. "An Ultraviolet Defense", The Journal News, Featured expert in news article [<http://www.thejournalnews.com/newsroom/021004/a0110ultraviolet.html>]
40. "Higher Math Watered Down", The News and Observer, Featured expert in news article. Jan 27, 2003.
41. Linden, K.G. and Mofidi, A.A. (2003) "Disinfection Efficiency and Dose Measurement of Polychromatic UV Light" Final Report: Awwa Research Foundation, Denver, CO
42. Rochelle, P.A.; Mofidi, A.A.; Linden, K.G.; & De Leon, R. (2003) "Measuring Inactivation of *Cryptosporidium parvum* by In-Vitro Cell Culture." In Cryptosporidium: From Molecules to Disease. Elsevier. Thompson, R.C.A; Armson, A.; & Ryan, U.M., Eds. P. 225 - 231
43. Linden, K.G., Bonislawsky, M., and Hawkins, J. "Evaluation of Performance and Operational Costs of Three Biological Nutrient Removal Schemes at a Full Scale Wastewater Treatment Plant", North Carolina Water Resources Research Institute (WRRI), Final Report. 2001.
44. Bonislawsky, M. and K.G. Linden "Costs and performance for 3 BNR schemes at a full scale wastewater treatment plant" Proceedings, *North Carolina AWWA/WEA Annual Meeting*, Asheville, NC, November 13-15, 1999.
45. Linden, K.G. "Benchmarking UV disinfection for wastewater", UV News, Vol 1, No. 2, 1999.
46. Linden, K.G. "UV disinfection for wastewater: state of the technology," *Civil Engineering*, invited, March 1998.
47. Linden, K.G. "UV disinfection for wastewater" *UV Wavelength*, invited, Spring 1998.

48. Linden(auer), K.G., S. Kullman, and M. E. Fuller. *Bioremediation Principles: Laboratory Manual*. UC Davis/US Department of Defense, Mare Island Naval Base personnel retraining program, July 1995.
49. Kayhanian, M., K.G. Linden(auer), S. Hardy, and G. Tchobanoglous. "Two stage process combines anaerobic and aerobic composting," *Biocycle*, March 1991.

Major Conference Presentations

1. [Need updates for 2019-20]
2. Linden, K., Hull, N.M., Sholtes, K., Beck, S. "UV LEDs for small systems: a revolution in robust and effective disinfection?" IWA SWWS2018 Conference on Small Water & Wastewater Systems and Resources Oriented Sanitation, Technion, Haifa, Israel
3. Linden, K., Hull, N.M., Sholtes, K., Beck, S. "UV LEDs for small drinking water systems: a revolution in robust and effective disinfection?" Lead Speaker, IUVA / ICULTA LED Conference, Berlin Germany, April 2018
4. Linden, K (2017) Exploring advantages and disadvantages of polychromatic Uv sources in water Treatment IUVA World Congress, Dubrovnik, Croatia.
5. Linden, KG, Javernick-Will, AJ, Hollander, D., Perez, E (2017) "Sustainable WASH Systems for Sustainable WASH Services" UNC Water and Health Conference October 2017
6. Linden, von Gunten, Mestankova, Parker, Canonica, Schirmer, K., Advanced oxidation-driven transformation of Contaminant Candidate List (CCL3) compounds in drinking water, ACS San Francisco, April 2017, Symposium in honor of Mel Suffet
7. Linden K, Javernick-Will A, Amadei B, Klees R, Sandekian R. (2016) "Engineering in developing communities: Curriculum development around graduate certificate and professional MS programs." Proc. 8th Conference on Engineering Education for Sustainable Development
8. Linden KG, Rosenblum JR, Hull N, thurman EM, ferrer I. "Characterization and treatment of hydraulic fracturing wastewater over time from northeast Colorado." American Chemical Society, 2016
9. Linden KG, Hull N. (2016) "Ultraviolet Wavelength- and Dose-Dependent Inactivation and Molecular Damage of MS2 Coliphage." Water Quality and Technology Conference (WQTC), November 13, 2016
10. Linden KG, Beck SE, Hull N. "Ultraviolet Wavelength- and Dose-Dependent Damage of Adenovirus Proteins." International UV Association World Congress, January 31, 2016-February 03, 2016
11. Linden KG, Ulliman S, Rosenblum JR. "Application of Advanced Oxidation Processes in the Treatment and Reuse of Hydraulic Fracturing Wastewater." International Ultraviolet Association World Congress, January 31, 2016-February 03, 2016

12. Linden KG, Ulliman S. "Enhancing Efficiency of UV Advanced Oxidation Processes via Iron Addition." WaterReuse Association 20th Annual WaterReuse Conference, May 22, 2016-May 24, 2016
13. Linden KG, Ulliman S, Rosenblum J. "Application of Advanced Oxidation Processes in the Treatment and Reuse of Hydraulic Fracturing Wastewater." WaterReuse Association 20th Annual WaterReuse Conference, May 22, 2016-May 24, 2016
14. Linden, K.G. Beck, S.E., Jeanis, K.M., Ryu, H., Boczek, L., Cashdollar, J. Lawal, O.R. "Optimizing Pathogen Inactivation with a Tailored, Multiple-Wavelength UV LED Unit" Pacifichem 2015: UV Photochemistry for Water Honolulu, Hawaii. December 16th, 2015
15. Linden, K.G., Collins, J., Wright, H., "Action Spectra for pathogens and surrogates: engineering implications for polychromatic UV systems" Pacifichem 2015: UV Photochemistry for Water Honolulu, Hawaii. December 15th, 2015
16. Linden, K.G., Collins, J., Wright, H., "Testing and documenting medium pressure UV inactivation" Association of State Drinking Water Administrators Conference, October 21, 2015 Ft. Worth, Tx
17. Linden, K.G. "Applications of Concentrated Solar-Energy in Innovative Sanitation Solutions" Fecal Sludge Management 3 Hanoi, Vietnam, January 19-22, 2015
18. Linden, K.G., Deshusses, M. "Odors in Fecal Sludge Management: A Roundtable Discussion" Fecal Sludge Management 3, Hanoi, Vietnam, January 19-22, 2015
19. Linden, K.G., Klees, R.C., Summers, R.S., Bielefeldt, A. "Integrated academic programs: courses, research, and in-field experience Successes and challenges for faculty" Association of Environmental Engineering and Science Professors Conference, Yale University. June 14, 2015
20. Linden, K.G. (2015) "Applications of Concentrated Solar Energy in Innovative Sanitation Solutions" Fecal Sludge Management 3 (FSM3), Hanoi Vietnam, January 19-22, 2015.
21. Linden, K.G. (2014) "Point of use UV systems: The good, the bad and the ugly" UV Disinfection in Developing Countries UNESCO-IHE and IUVA November 6, 2014 Delft, Netherlands, Invited
22. Lester, Y., Love, N.G., Aga, D., Singh, R., Linden, K.G. (2014) "Demonstrating and Monitoring Advanced Oxidation – Biofiltration to Remove Emerging Contaminants from Wastewater". Americas Regional Conference; International UV Association, White Plains, NY, October 26-29, 2014.
23. Lester, Y., Ferrer, I., Thurman, E.M., Linden, K.G. (2014) "Demonstrating sucralose as a monitor of full-scale UV/AOP treatment of trace organic compounds" Water Environment Federation Technology Exhibition Conference (WEFTEC), New Orleans, LA September 28-October 1, 2014.

24. Rosenblum, J., Sitterley, K.A., Lester, Y., Linden, K., (2014) "Coupling Suspended Biological and Advanced Oxidation Processes in the Treatment of Produced Water" Rocky Mountain Water Reuse Workshop, August 14, 2014
25. Linden, K.G. (2014) "21st Century Water Treatment: The Case of Ultraviolet Light" Water Research Australia Symposium - Science Talks to Industry. Melbourne, Australia July 16, 2014. Invited Keynote
26. Sitterley, K.A., Linden, K.G. (2014) "Coagulation of Produced Water" Rocky Mountain AWWA/WEA Student Conference May 22, 2014
27. Lester, Y., Yacob, T., Morrissey, I., Linden, K.G. (2014) "Treating fracturing flowback by biological and advanced oxidation processes" 247th American Chemical Society National Meeting & Exposition, Dallas, TX March 16-20, 2014.
28. Linden, K.G., Love, N.G., Aga, D.A., (2014) "Demonstrating Advanced Oxidation/Biofiltration For Pharmaceutical Removal In Wastewater" Managing Trace Organics, WERF 9th Annual Research Forum New Orleans LA, Jan 28-30, 2014. Invited Talk.
29. Linden, K., Beck, S., Hargy, T., Wright, H., Larason, T., McCuin, R. "Measuring Action Spectra of Pathogens and Surrogates" IUVA World Congress, Las Vegas, NV, September 22-26, 2013
30. Linden, K.G., Poepping, C., Beck, S. (2013) "Potential for Unintended DNA Damage Reversal Resulting from Multiple Wavelength Irradiation from Polychromatic UV Light Sources" IUVA World Congress, Las Vegas, NV, September 22-26, 2013
31. Linden, K.G.; Beck, S., Poepping, C., Wright, H., Hargy, T. Cotton, C. (2013) "Results and implication from generating the best action spectra data possible" American Water Works Association Annual Conference and Exposition, June 9-12, 2013.
32. Linden, K.; Weimer, A.; Summers, S; Oversby, C.; Klees, R.; Lewandowski, A.; Fisher, R.; Mahoney, R.; Yacob, T.; Mejic, D.; Hauschulz, D.; Kearns, J.; Beck, S.; Ward, B. J.; Hafford, L.; Ruiz, A. "Solar Driven Thermal Toilet with Biochar Production" Water and Health Conference, University of North-Carolina, Chapel Hill, NC. October 14-18, 2013.
33. Linden, K.G., Beck, S.; Rodriguez, R.; Poepping, C.; Bounty, S.; "Wavelength-Specific Inactivation of Viruses. Measuring Nucleic Acid and Protein Damage." ReNUWIt Sunlight Symposium, Stanford University, April 2, 2013.
34. Linden, K.G. (2012) "And What If... Rethinking Disinfection in Drinking Water" Association of State Drinking Water Administrators (ASDWA) Annual Conference, Little Rock, AK Oct 16-18, 2012.
35. Linden, K.G. (2012) "Key Factors for Evaluating Medium Pressure UV Disinfection Systems" AWWA Water Quality Technology Conference, Toronto, ON Canada, November 4-7, 2012
36. Linden, K., (2011) "Regulatory implications of new findings on UV disinfection of Adenovirus in drinking water." AWWA Water Quality Technology Conference, Phoenix, AZ, November 13-16, 2011

37. Linden, K., (2011) "When Dose is not Dose: The Case of UV Disinfection of Adenovirus" International UV Association North American Congress, Toronto, Canada, Sept.18-21, 2011
38. Linden, K., Keen, O., Baik, S., Aga, D. and Love, N. (2011) "Enhanced biodegradation of carbamazepine after UV/H₂O₂ advanced oxidation." International UV Association North American Congress, Toronto, Canada, Sept.18-21, 2011
39. Linden, K., Barstow, C., Dotson, A. (2011) "UV POU Device for Piped Water Supplies in Developing Communities", International UV Association North American Congress, Toronto, Canada, Sept.18-21, 2011
40. Linden, K.G., Scheible, K., Chen, C., Shin, G-A., Lee, J-K., Posy, P. (2011) "Demonstrating 4-log Adenovirus Inactivation in a Medium Pressure UV Reactor" International UV Association World Congress and Exhibition, Paris, France, May 22-25, 2011
41. Linden, K.G., Posy, P., Scheible, K., (2011) "Can UV Protect the Public from Adenovirus in Drinking Water?" Water Environment Federation Disinfection 2011 - Addressing the Full Spectrum of Global Disinfection Challenges, Cincinnati, OH April 10-12, 2011
42. Linden, K.G., Posy, P., Scheible, K., Shin, G-A, Thurston, J., Eischeid, A. (2010) "How Research is Determining Drinking Water & Public Health Policy: Can UV Protect the Public from Adenovirus in Drinking Water?" Association of State Drinking Water Administrators Annual Conference, Pittsburgh, PA, October 18-20, 2010
43. Linden, K.G., Eischeid, A., Thurston, J. (2010) "Enhancing the UV Inactivation of Adenoviruses in Reclaimed Water" WaterReuse Research Conference, WaterReuse Research Foundation, Tampa, FL, May 25, 2010
44. Linden, K., Ruiz-Haas, R., Cho, K-D., Kulman, S. (2009) "Presence, Fate and Treatability of Estro- and Androgenic Contaminants in Wastewater and Biosolids" Micropol and Ecohazard 2009, June 8-10, 2009, San Francisco, CA
45. Linden, K. Bandy, J., Thurston, J., Salveson, A. (2009) "Advanced Disinfection Processes for Pathogen Control in Reuse Waters", WaterReuse Foundation Research Conference, Huntington Beach, CA May 18-19, 2009
46. Linden, Karl G, Eischeid, Anne C; "Protein Damage in UV Treated Adenovirus", Water Quality Technology Conference, Seattle, WA, November 17, 2009. American Water Works Association
47. Linden, K.G.; Karl Scheible, Chengyue Shen, Gwy-Am Shin, Jung-Keun Lee, Phyllis Posy. "Demonstrating 4-log Adenovirus Inactivation in a Medium Pressure UV Reactor" Water Environment Foundation, Disinfection 2009: Addressing the Full Spectrum of Global Disinfection Challenges 2/28-3/3, 2009, Atlanta, Georgia
48. Linden, K.G., Scheible, K., Chen, C., Shin, G-A., Lee, J-K., Posy, P. (2008) "Demonstrating 4-log Adenovirus Inactivation in a Medium Pressure UV Reactor" AWWA Annual Conference and Exhibition, Atlanta, GA June 8-11.

49. Linden, K., Bandy, J., Thurston, J., Salveson, A. (2008) "Advanced Treatment Technologies and Processes for Removal of Pathogens and Chemical Pollutants for Water Reuse" 12th Annual Water Reuse and Desalination Research Conference, Denver, CO May 5-6, 2008.
50. Linden, K.G., Bohrerova, Z., Bohrer, G., Cho, K-D., Bolch, A., Katul, G., Avissar, R. (2007) "Viability of Pine Pollen under Atmospheric Conditions during Long Distance Dispersal" 2nd USDA Symposium for Agricultural Biotechnology Risk Analysis Research, College Park, MD Dec 5-6, 2007
51. Linden, K.G., Mamane, H., Shemer, H (2007) "Inactivation of *E. coli*, *B. subtilis* spores, and MS2, T4, and T7 phage using UV/H₂O₂ Advanced Oxidation" 4th International Congress on Ultraviolet Technologies (IUVA), Los Angeles, CA, August 26-29, 2007
52. Linden, K.G., Thurston, J., Schaefer, R.B. (2007) "Enhanced UV disinfection of Adenoviruses with polychromatic UV irradiation" Proceedings 4th International Congress on Ultraviolet Technologies (IUVA), Los Angeles, CA, August 26-29, 2007
53. Linden, K.G., Scheible, K., Shen, C., Shin, G-A., Posy, P. (2007) "Full-scale validation of 4-log Adenovirus inactivation in medium pressure UV reactors" Proceedings 4th International Congress on Ultraviolet Technologies (IUVA), Los Angeles, CA, August 26-29, 2007
54. Linden, K.G., Shemer, H., Reckhow, D.A., Makdissy, G. (2007) "Ultraviolet Light Induced Disinfection Byproducts: Realities and Challenges" *Disinfection 2007*, WEF, AWWA, WRF, Feb 5-7, Pittsburgh, PA, USA
55. Linden, K., Simmons, O., Sobsey, M.D., Dubey, J.P. (2006) "UV Disinfection of *Toxoplasma gondii* oocysts in water", Awwa WQTC, Nov 5-9, Denver CO.
56. Linden, K.G., Rosenfeldt, E.J., Kullman, S.W., (2006) "UV/H₂O₂ Degradation of EDCs in Water Evaluated via Toxicity Assays" 4th IWA Specialist Conference Oxidation Technologies for Water and Wastewater Treatment May 15-17, 2006, Goslar Germany
57. Linden, K.G., Rosenfeldt, E.J., Chen, P.J., Kullman, S.W., (2006) "UV and UV/H₂O₂ degradation and subsequent toxicity of endocrine disrupting chemicals in water" Symposium: Safe Drinking Water: Where Science Meets Policy, UNC Chapel Hill, March 16-17, 2006.
58. Linden, K.G., Rosenfeldt, E.J., Chen, P.J., Kullman, S.W. (2005) "Assessment of estrogenic activity following UV and UV/H₂O₂ degradation of endocrine disrupting chemicals in water" *Pacificchem: Environmental and Green Chemistry Free Radical Chemistry in the Environment*, Honolulu, Hawaii, December 2005.
59. Pereira, V.J., Linden, K.G., Weinberg, H.S. (2005) "Photodegradation of pharmaceutical and contrast media agents in surface water by direct photolysis and UV advanced oxidation processes" *AWWA Water Quality Technology Conference*, Quebec City, Quebec Canada, November 2005
60. Bohrerova, Z., Bohrer, G., Mohan, M., Ducoste, J.J., Linden, K.G. (2005) "Experimental Measurements of Fluence Distribution in a UV Reactor Using

- Fluorescent Dyed Microspheres” *AWWA Water Quality Technology Conference*, Quebec City, Quebec Canada, November 2005
61. Shemer, H., Sharpless, C.M., Suffet, I.H., Linden, K.G. (2005) “Relative reactivity of Contaminant Candidate List pesticides to OH radical oxidation” *AWWA Water Quality Technology Conference*, Quebec City, Quebec Canada, November 2005
 62. Pereira, V.J., Linden, K.G., Weinberg, H.S. (2005) “Direct photolysis and UV advanced oxidation processes of pharmaceuticals in surface water” 3rd International Congress on Ultraviolet Technologies (IUVA). Whistler, BC, Canada, May 2005
 63. Linden, K.G. Johnson, S. Moore, A. and Malley, J.P. (2005). “Importance of wavelength for UV inactivation of adenovirus in water”, 3rd International Congress on Ultraviolet Technologies (IUVA). Whistler, BC, Canada, May 2005
 64. Linden, K.G., Eischeid, A. (2004) “Effect of Wavelength on Efficiency of DNA Damage During UV Disinfection of *E. coli*” *AWWA Water Quality Technology Conference*, San Antonio TX, November 14-17, 2004
 65. Linden, K.G., Rosenfeldt, E.J., Chen, P.J., Kullman, S.W. (2004) “UV and UV/H₂O₂ degradation and subsequent toxicity of endocrine disrupting chemicals in water” *European Conference on UV Radiation*, Karlsruhe, Germany Sept 22-24, 2004
 66. Linden, K.G., Bolton, J.R., Malley, J.P., Mofidi, A.A., Stefan, M.I. (2003) “Benchmarking UV collimated beam testing: Inter-laboratory comparison of the UV sensitivity of MS2 coliphage”, Proceedings, *AWWA Water Quality Technology Conference*, Philadelphia, PA, November 2-6, 2003
 67. Linden, K.G., Sharpless, C.M., Chen, W.R., Suffet, I.H. (2003) “Processes for the treatment of Candidate Contaminant List (CCL) chemicals”, Proceedings, *AWWA Water Quality Technology Conference*, Philadelphia, PA, November 2-6, 2003.
 68. Linden, K.G. (2003) Symposium: Treatment Methods for Inactivation of Pathogens in Juice, “UV Light Basics for Treatment of Juice”, National Center for Food Safety & Technology, Orlando FL, Feb 20-21, 2003 – Invited Speaker
 69. Linden, K.G. (2003) “UV and UV-advanced Oxidation processes for removal of EDC in water”, IWA First Leading Edge Conference: Drinking Water and Wastewater Treatment Technologies, Noordwijk, The Netherlands, May 26-28, 2003. Invited
 70. Linden, K.G., Rosenfeldt, E.J., Johnson, S., Melcher, B. “Direct UV and UV Oxidation Processes for Treatment of Taste and Odor Causing Compounds in Water” *AWWA Water Quality Technology Conference*, Seattle, WA, November 10-14, 2002.
 71. Linden, K.G. “Teaching Through Research: New Technologies and Emerging Contaminants for Water” Association of Environmental Engineering and Science Professors (AEESP) Research and Teaching Conference Toronto, ON, Canada, 2002
 72. Linden, K.G., Batch, L., Schulz, C. “UV disinfection of filtered water supplies: Water Quality Impacts on MS2 Dose-Response Curves” *AWWA Annual Conference and Exhibition*, New Orleans, LA, June 16-20, 2002.

73. Linden, K.G. and Ormeci, B. "Comparison of UV and Chlorine Inactivation of Particle and Non-Particle-Associated Coliform", *IWA Enviro 2002 – World Water Congress*, Melbourne, Australia, April 7-12, 2002
74. Linden, K.G. and Ormeci, B. "Comparative Effectiveness of UV and Chlorine for Inactivation of Particle Associated Coliform", *WEF Disinfection 2002*, St. Petersburg FL, February 17-20, 2002
75. Linden, K.G., Shin, G.A., and Sobsey, M.D. "Comparison of monochromatic and polychromatic UV light for disinfection efficacy" *Water Quality Technology Conference, AWWA*, Salt Lake City, UT. November 4-8, 2000
76. Linden, K.G. "Application of UV disinfection for water treatment" *Proceedings, 2000 Annual Conference of the North Carolina Section of AWWA/WEA*, Charlotte, North Carolina, November 12-14, 2000.
77. Linden, K.G. "Evaluating germicidal dose from UV sources with actinometry – theoretical considerations" *International Conference on Applications of Ozone, International Ozone Association, at Wasser Berlin*, Berlin Germany, October 23-26, 2000.
78. Linden, K.G., Krupa, K. and Harden, C. "Optimization and performance of a trickling filter for treatment of snack food processing plant wastewater" *WEFTEC 2000, 73rd Annual Conference and Exposition on Water Quality and Wastewater Treatment*, Anaheim, CA, October 14-18, 2000.
79. Linden, K.G. Shin, G.A., and Sobsey, M.D. "Relative efficacy of UV wavelengths for the inactivation of *Cryptosporidium parvum*" *Disinfection 2000, WEF Specialty Conference*, New Orleans, LA. March 15-17, 2000.
80. Bonislawsky, M. and K.G. Linden "Costs and performance for 3 BNR schemes at a full scale wastewater treatment plant" " *North Carolina AWWA/WEA Annual Meeting*, Asheville, NC, November 15, 1999.
81. Linden, K.G. and A.A. Mofidi "Measurement of UV irradiance: tools and considerations" *Water Quality Technology Conference, American Water Works Association*, Tampa Bay, FL, November 3, 1999.
82. Linden, K.G. "UV Disinfection: Process and Design Considerations" *North Carolina AWWA/WEA Annual Meeting*, Research Triangle Park, NC, November 10, 1998.
83. Linden, K.G. et al. "Investigation of disinfection byproduct formation following low and medium pressure UV irradiation of wastewater" *WEF Disinfection Specialty Conference*, Baltimore, MD. April, 1998.
84. Linden, K.G. and Darby, J.L. "Measuring UV absorbance of marginal effluents: Impact on UV dose estimation". Presented at *Water Environmental Federation 70th Ann. Conf. and Exhib*, Chicago, IL. Oct., 1997.
85. Linden, K.G. and Darby, J.L. "Estimating effective germicidal UV dose from medium pressure UV lamps using mathematical, bioassay, and chemical actinometry approaches". Presented at *Joint ASCE/CSCE Environmental Engineering Conference*, Edmonton, Canada. July, 1997.

86. Linden, K.G. "UV disinfection efficiency: effect of particulate matter". *California Water Environment Association Annual Conference*, Sacramento, CA. April, 1996
87. Linden, K.G. "Wastewater reuse for organic farmers". *Ecological Farming Conference*, Asilomar CA. January, 1994.
88. Linden(auer), K.G. and J.L. Darby. "Evaluation of ultraviolet light disinfection: significance of photoreactivation", *WEF Disinfection Specialty Conference*, Whippany, NJ. May, 1993.

Invited Lectures/Presentations/Workshops

1. [Need updates for 2019-20]
2. Invited Keynote - Retirement Symposium for Dr. Mark Sobsey, "The Sobsey Bump: Tales from the Personal to the Professional" UNC Chapel Hill. Nov 30, 2018.
3. Convenor of Workshop: "Assessing log reduction values for drinking-water treatment technologies" World Health Organization, IWA World Water Congress, Tokyo, Japan, September 2018
4. Invited Seminar: "WHO Revision of Log Removal Values for Drinking Water Treatment Processes" Urban Water Sustainability Group. Technical University Munich December 2018
5. Invited Seminar: "The Wavelength Dependence of UV Water Treatment:are UV LEDs the Future?" Clemson University, Department of Environmental Engineering and Earth Science, April 2018.
6. Invited Seminar: "The Wavelength Dependence of UV Water Treatment:are UV LEDs the Future?" University of British Columbia, Chemical and Biological Engineering, May 2018
7. Discussion Leader, Invited: Oxidative Processes and Contaminant Transformations. Gordon Research Conference, Environmental Sciences: Water. June 2018
8. Webinar: Implementing Ozone Disinfection for Wastewater, Water Environment Federation, March 2018
9. Valcourt, N., Hollander, D., Pugel, K., Iavernick-Will, A., Linden, K., (2018). Using Systems Analysis to Understand and Strengthen WASH Systems. Verbal presentation at the Colorado WASH Symposium, University of Colorado Boulder.
10. Joanna R. Murphy, Dr. Karl G. Linden. "Coupled UV-Membrane and Oxidant - Membrane Processes For Decreased Biofouling and Enhanced Flux in Water Reclamation Applications". MAST IAB Meeting. November 4, 2018. Boulder CO.
11. Joanna R. Murphy, Dr. Karl G. Linden. "Coupled UV-Membrane and Oxidant - Membrane Processes For Decreased Biofouling and Enhanced Flux in Water Reclamation Applications". MAST IAB Meeting. May, 22 2018. State College, PA.
12. Ulliman SL, Rosario-Ortiz, FL, Linden KG, Korak, JA (Aug. 2018). Assessment of optically-based measurements of organic matter for differentiation of source waters and treated wastewaters. Environmental Protection Agency Technical Information Exchange, Denver, CO.

13. Ulliman SL, Miklos DB, Hü bner U, Drewes JE, Linden KG (podium, April 2018). Improving UV/H₂O₂ performance following tertiary and advanced treatment of municipal wastewater. Consortium for Research and Education on Emerging Contaminants, Golden CO.
14. Hull NM, Sholtes KA (co-first authors), Linden, KG (Feb 2017). UVC LEDs and Disinfection. UVC LED Review Workshop for IUVA Americas, Austin, TX, USA.
15. Linden, K (2017) Fundamentals and Basics: How does UV work (disinfection and AOP) and methods of delivering UV irradiation. IUVA World Congress, September 17-21, 2017, Dubrovnik, Croatia
16. Linden, K, Sholtes, K (2017) Testing Protocol for Measurement of UV-C LED Lamp Output: Round Robin Report & Next Steps. IUVA World Congress, September 17-21, 2017, Dubrovnik, Croatia
17. Keynote: Linden KG, UV-AOP: Emerging Trends in Reuse of Impaired Waters. Busan Global Water Forum, September 7, 2017
18. Murphy, J.R., Linden, K.G. (2017). "Coupled UV-Membrane and Oxidant Membrane Processes For Decreased Biofouling and Enhanced Flux in Water Reclamation Applications". Presented to: MAST Center Symposium. Fayetteville AK. 2017 Apr 22-24.
19. Murphy, J.R., Linden, K.G. (2017). "Coupled UV-Membrane and Oxidant Membrane Processes For Decreased Biofouling and Enhanced Flux in Water Reclamation Applications". Presented to: MAST Center Symposium. Newark, NJ. 2017. Oct 22-24.
20. Linden, K., Walters, J., Prestación de Servicios Sostenibles de Agua Saneamiento e Higiene Mediante el Fortalecimiento de Sistemas Locales. SWS Symposium, UDP, Santiago Chile, May 19, 2017
21. Rosenblum, Linden, UC, Irvine. Hydraulic Fracturing: Impacts to California's Water Supply. 11/4/2017 (Panel Member)
22. Hull NM and Linden KG (October 2017). Mechanisms and Sustainability of Wavelength- Tailored Ultraviolet Drinking Water Disinfection for Small Systems. CU Boulder Environmental Engineering Seminar Series, Boulder, CO, USA.
23. Webinar: Hull, NM and Linden KG (Jan 2017). UV Wavelength-Specific Damage and Inactivation of MS2. DeRISK Drinking Water Webinar, Boulder, CO, USA.
24. Webinar: Linden, Karl (2017) Peracetic Acid (PAA) Fundamentals: Peracetic Acid for Disinfection of Municipal Wastewater Effluent , Water Environment Association of Texas
25. Moderator: Onsite Nonpotable Water Systems, Session, International Water Association Water Reuse conference, Long Beach CA, July 2017.
26. Ulliman and Linden, Guest lecturer at Boulder High School, Environmental Science class. "The Water (Re)cycle." Boulder, CO. Sept. 2017

27. Invited Presentation: "Innovations in Sanitation: Resource Recovery and Water Reuse in Developing Countries" EUFRAME Workshop, Koblenz, Germany, March 2018
28. Webinar: NSF NEWT ERC - Sustainable WASH Systems and Sustainable WASH Services. January 2018
29. Linden K , Mini-Symposium on Emerging Contaminants. RMIT University, Melbourne Australia, October 6, 2016. "The Role of UV and AOP Processes in Mitigating Emerging Contaminants in Wastewater Reuse", KEYNOTE
30. Linden, K, Water Sustainability in Oil and Gas Exploration: Treating Frack Water for Reuse. Ecology and Environment Conference June 21-23, 2016, Tel Aviv, Israel.
31. Linden, K. The Role of UV Disinfection and Advanced Oxidation Treatment in Acceptance of Direct Potable Reuse in USA, at Water Reuse in Israel: Where we are and where can we go?, Porter School of Environmental Studies, Tel Aviv University, Israel July 11, 2016, KEYNOTE
32. Linden, K. Characterization and Treatment of Hydraulic Fracturing Wastewater Over Time from Northeast Colorado. EmCon (Emerging Contaminants), Sydney Australia Sept 20-23, 2016. Co-Authors: James Rosenblum, E. Michael Thurman, Imma Ferrer, George Aiken, Karl Linden
33. Linden, K. The Role of UV Disinfection and Advanced Oxidation Treatment in Acceptance of Direct Potable Reuse in USA. at The Second Asian Symposium on Water Reuse, Kyoto, Japan, April 25, 2016. KEYNOTE
34. Linden, K. Demonstrating Organic Contaminant Removal in an Ozone-based Water Reuse Process at Full Scale. International Water Association World Water Congress, Brisbane Australia Oct 9-13, 2016. Co-Authors: Judy Blackbeard, James Lloyd, Mirela Magyar, John Mieog, Yaal Lester
35. Linden, k. UV Applications and Trends in drinking water. Second Japan International Ultraviolet Technologies Symposium, University of Tokyo (UT) Tokyo Japan, April 22, 2016. Theme: "UV Innovations: Towards Sustainable Water Use". KEYNOTE
36. The MPN Method and Ultraviolet (UV) Radiation Treatment: Assessing disinfection using culturing methods vs. inclusion/exclusion dyes. GEF-UNDP- IMO GloBallast R&D Forum and Exhibition on Ballast Water Management ICAO HQ, Montreal, Canada, 16-18 March 2016.
37. 21st Century water treatment, The case of ultraviolet light International UV Association, 2016 World Congress Feb 1, 2016. Vancouver, Canada. KEYNOTE
38. Optimizing Pathogen Inactivation at Low Energy Cost with a Tailored, Multiple-Wavelength UV LED Unit. 2016 World Congress Feb 2, 2016. Vancouver, Canada
39. Kari Sholtes and Karl Linden; Proposed Testing Protocol for Measurement of UV-LED Lamp Output; IUVA World Congress, Vancouver, BC, Feb 3, 2016, Presentation
40. Water Reuse Alaska, at Water Innovations for Healthy Arctic Homes (WIHAH), Anchorage AK, Sept 19-21, Presented by student Kaity Mattos with Aaron Dotson.

41. Linden K. Eawag, Department Water Resources & Drinking Water Dubendorf, Switzerland, Thursday, December 8, 2016 “MP or not MP, that is the question.....Exploring advantages and disadvantages of polychromatic UV sources in water treatment” INVITED
42. Linden K , Chair in Urban Water Systems Engineering PhD Seminar, TU Munich, Nov 28, 2016 “The Wavelength dependence of UV disinfection: are UV LEDs the future?” INVITED
43. Linden K , Oskar von Miller Forum Workshop. Munich, Germany, November 30, 2016 “Water Management and Reuse in Buildings”
44. Linden K , Melbourne Water. Melbourne, Australia, October 2, 2016 “Ultraviolet Light Technology: Low vs Medium Pressure Mercury lamps” INVITED
45. Linden K , Melbourne Water. Melbourne, Australia, October 2, 2016 “Emerging Contaminants: State of the Art World-wide” INVITED
46. Linden K , Gut Marienhof Wastewater Treatment Plant Munich. Meeting on UV-AOP, October 21, 2016 “Perspective on trends, issues and costs for UV disinfection and AOP technologies” INVITED
47. 21st Century Water Treatment: The Case for Ultraviolet Light Zuckerberg Institute for Water Research, Ben-Gurion University of the Negev, June 29, 2016. Sde Boker, Israel INVITED
48. The Emerging Role of Advanced Oxidation Processes in Water Reclamation, Hokkaido University, April 19, 2016 INVITED
49. 21st Century Water Treatment: The Case for Ultraviolet Light National Institute of Public Health, Saitama, Japan, April 6, 2016. This lecture was a special invited lecture that included attendance by high ranking administrators at NIPH to discuss the role of UV technology in public health protection in Japan. INVITED
50. ...And What IF ...? Rethinking Disinfection in Drinking Water Systems University of Tokyo, April 7, 2016 Special lecture in Environmental Engineering at the University of Tokyo. Japan INVITED
51. Validation of UV Disinfection Systems: RED Bias Concept University of Tokyo, April 12, 2016. INVITED
52. 21st CENTURY water treatment: The case of ultraviolet light Tsinghua University, Environmental Forum, June 7, 2016 Beijing, China. INVITED
53. The Role of UV Disinfection and Advanced Oxidation Treatment in Acceptance of Direct Potable Reuse in USA. Chinese Academy of Sciences, Beijing China, June 3, 2016. INVITED
54. Advanced Technology and Innovations for Sanitation: Solar Toilets and Safe Effluent Reuse by UV. Asian Institute of Technology Bangkok, Thailand. March 10, 2016 INVITED
55. ...And What IF ...? Rethinking Disinfection in Drinking Water Systems. University of British Columbia, Vancouver, BC January 28, 2016

56. Water Sustainability in Oil and Gas Exploration: Treating Fracturing Flowback Water for Reuse. Jan 27, 2016. Peter Wall Institute for Advanced Studies, University of British Columbia, Vancouver BC Canada.
57. “Water Quality and Contamination” National Water Security: Workshop Program for Mexican Government, Tel Aviv, Israel, October 13, 2015. Invited
58. “Regulations and Guidelines for Drinking Water Quality” National Water Security: Workshop Program for Mexican Government, Tel Aviv, Israel, October 15, 2015. Invited
59. “21st CENTURY water treatment: The case of ultraviolet light past, present and future” Ajou University South Korea, April 10, 2015. Invited
60. “UV Application and Trends in Drinking Water Treatment” Kwater Institute, South Korea, April 7, 2015. Invited
61. “UV and UV-AOP for Water Treatment and Reuse” GIST: Gwang-Ju South Korea, April 6, 2015. Invited
62. University of California Riverside, “The ABC’s and XYZ’s of AOPs” Riverside, CA, March 6, 2015. Invited
63. “Guidance for Implementing Action Spectra Correction with Medium Pressure UV Disinfection” Karl Linden, James Collins, Harold Wright. Webcast: Water Research Foundation, June 23, 2015
64. CalTech University, “Solchar: Solar driven thermal toilet with biochar production – an update” Pasadena CA, March 5, 2015.
65. NREL: Water-Energy Summit, Denver, September 22, 2015 Invited Participant.
66. NOAA: State of Science for Dispersant Use in Arctic Waters Workshop, January 5-9, 2015 Seattle WA. Invited Participant.
67. NSF-ESPRC Clean Water for All Workshop, London UK, October 20-21, 2014. Invited Participant.
68. First Nations Cultural Training - Workshop on Hydraulic Fracturing issues in Canadian First Nations Communities, Elsipogtog New Brunswick October 5-8, 2014. Invited Participant.
69. Rosenblum, J., Linden, K., (2014) “Impacts of natural gas development on water and air resources: Treatment of produced waters” 2nd Sino-US Workshop on: The Challenges Ahead: Sustainability Issues at the Nexus of Energy, Water, Climate, and Air Pollution. Pasadena, CA, September 8-9, 2014. Invited
70. “Water Sustainability in Oil and Gas Exploration: Treating Frack Water for Reuse” School of Civil, Environmental and Chemical Engineering, RMIT University. July 25, 2014. Invited
71. “Application of ultraviolet light technologies for disinfection and oxidation in reuse waters” Symposium on Urban Scale Water Reuse, University of Sheffield, UK June 17, 2014 Invited
72. Rethinking Disinfection in Drinking Water Systems” University of Queensland, Brisbane, Australia. May 5, 2014, Invited

73. Workshop - Australian Water Recycling Centre of Excellence: Toward National Validation Guidelines For Water Recycling In Australia. Facilitator: Karl G. Linden, University of Colorado, Boulder. OZWater, Brisbane Australia, April 29-May 1, 2014
74. Yacob, T., Linden, K.G. "Sol-Char Toilet" Invited presentation. April 15, 2014. Addis Ababa Institute of Technology, Addis Ababa, Ethiopia.
75. "Sol-Char Toilet: Sanitation issues in developing countries: new toilet technologies", AP Environmental Science class, Boulder High School April 8, 2014, Invited
76. Sol-Char Toilet Exhibit, Reinventing the Toilet Fair, Bill & Melinda Gates Foundation, New Delhi, India. March 20-22, 2014.
77. "And What If.... Rethinking Disinfection in Drinking Water Systems", Australian Water Association, RMIT University, Melbourne Australia, February 19, 2014 Invited public lecture
78. "Reinventing the Toilet: The Sol-Char Toilet" Department of Civil and Environmental Engineering, University of California, Berkeley, Berkeley, CA, Sept 27, 2013. Invited
79. "Solar-driven thermal toilet with biochar production" Department of Biological and Environmental Engineering, Cornell University, Ithaca, NY, Nov. 8, 2013. Invited
80. "Reinventing the Toilet: The Sol-Char Toilet" 2013 Colorado WASH Symposium, Boulder, CO, March 20, 2013
81. "Reinventing the Toilet: The Sol-Char Toilet" 2013 Colorado Global Health Symposium, Denver, CO, Sept 28, 2013
82. "UV-Based Advanced Oxidation and Transformation of Organic Contaminants" Department of Civil and Environmental Engineering, Northeastern University, Boston, MA, October 9, 2013, Invited
83. "If you build it, will they come? Predicting Individual Uptake of Rural Water Services in the Peruvian Amazon" RES'EAU IMPACT: Putting rural community water systems first, Vancouver British Columbia, Canada, October 3, 2013.
84. "Environmental Engineering Water Research". Colorado Water Innovation Exposition, University of Colorado Boulder, Jan 10, 2013.
85. "Linden Research Group – Research Update" Melbourne Water and RMIT University, September 4, 2013.
86. "Pioneer award: Insights on Ultraviolet Light Disinfection In Public Health Protection" Disinfection and Public Health 2013, Water Environment Federation, Feb 25, 2013. Luncheon Award speech.
87. "Advanced Oxidation Processes in Water Treatment". Rocky Mountain Water & Wastewater Plant Operators School, March 13, 2013
88. "WASH activities at the University of Colorado" Colorado Higher Education WASH Summit, January 18, 2013
89. "Evaluating the toxicity of organophosphate CCL3 contaminants post UV and Ozone based AOP Treatment" The Consortium for Research and Education on Emerging Contaminants (CREEC) Meeting presentation. Denver, CO – September 12, 2013.

90. "Terms of Endearment: The Bolton Impact Factor" Invited Keynote, Symposium in Honor of James R. Bolton, IUVA World Congress, Las Vegas, NV, September 22-26, 2013
91. "Beyond Conventional: Illuminating the Future of Water Treatment", Columbia University, Department of Earth and Environmental Engineering, New York, NY, November 20, 2012
92. "Action Spectra of validation microorganisms for UV disinfection" AWWA Low Wavelength Working Group Public Meeting, Toronto, ON Canada, November 6, 2012
93. "Water Treatment Basics" GEEN 1400, Freshman Design Class, University of Colorado Boulder, October 30, 2012
94. "Evaluating Transformation Products during Advanced Oxidation of Organic Contaminants in Water" Consortium for Research and Education on Emerging Contaminants (CREEC) USGS National Water Quality Laboratory, Lakewood CO, October 11, 2012
95. "UV Disinfection: New Developments for Small Systems" 9th Annual US EPA Drinking Water Workshop, Small Drinking Water Systems: Compliance Strategies. Cincinnati, OH September 12, 2012
96. "Beyond Conventional: Illuminating the Future of Water Treatment" Lectures at the Leading Edge, University of Toronto, Department of Chemical Engineering, Toronto Ontario, Canada, March 21, 2012
97. "Expert Workshop on Toxicity Testing of Water Undergoing Advanced Oxidation Processes Prior to Discharge", US EPA National Homeland Security Research Center, Water Environment Research Foundation, Alexandria, VA December 2, 2011
98. Low Wavelength UV Disinfection Issues Expert Workshop III, AWWA Water Quality Technology Conference, Phoenix, AZ, November 13, 2011
99. "Environmental Engineering FE Exam Review", CEAE Department, October 13, 2011
100. "Water Reuse Realities", Guest Lecture in EVEN 1000, October 13, 2011
101. "RES'EAU Knowledge Transfer Workshop –Panel on International Issues in Water", University of British Columbia, Vancouver, B.C. Canada, October 6, 2011.
102. Low Wavelength UV Disinfection Issues Expert Workshop II, IUVA North American Regional Conference, Toronto, Canada, September 21, 2011
103. "Ozone for virus inactivation at Melbourne Water Eastern Treatment Plant" Victoria Department of Health, Melbourne Australia, August 17, 2011
104. Low Wavelength UV Disinfection Issues Expert Workshop I, AWWA Annual Conference and Exhibition, Washington D.C., June 13, 2011
105. "Ultraviolet Light: What's Next?" UV Disinfection for the Real World: Back to Basics Workshop, AWWA Annual Conference and Exhibition, Washington D.C., June 12, 2011
106. "Advanced Oxidation Processes in Water Treatment: Monitoring Possibilities" HACH Corporation, Loveland, CO, June 9, 2011

107. “Investigations on the Extreme Resistance of Adenovirus to UV Disinfection” Environmental Engineering and Science Department, Tsinghua University, Beijing, China, June 1, 2011
108. “21st Century Water Treatment: The Case for Ultraviolet Light” Keynote Invited speaker, TEDA UV Workshop, Tianjin, China, May 30, 2011
109. “How Research is Determining Policy: Can UV Protect the Public from Adenovirus in Drinking Water?” Keynote Speaker, International UV Association World Congress and Exhibition, Paris, France, May 22-25, 2011
110. Expert Panel, Impacts of low wavelengths on disinfection credits for *Cryptosporidium* workshop. International Ultraviolet Association World Congress, Paris, France May 22-25, 2011
111. “Treatment Information Gaps and Research Needs – Identification and Prioritization: Contaminant Groups Treatment Research Prioritization Workshop.” Water Research Foundation, Boulder, CO, April 26-27, 2011
112. “UV Disinfection Basics- Mechanisms and Effectiveness “ UV Disinfection: Fundamentals, Regulations, and Applications Webcast. American Water Works Association, March 23, 2011
113. “Advanced Oxidation Processes in Water and Wastewater Treatment” Rocky Mountain Water and Wastewater Plant Operators School, Broomfield, CO, March 15, 2011.
114. “Ultraviolet Light Water Purification” Guest Lecture, CVEN 5524 Water Treatment, February 23, 2011
115. “Investigations on the Extreme Resistance of Adenoviruses to UV Disinfection” Keynote Speaker: Symposium on Interfacial and Disinfection Chemistry: Fate, Transport, and Adsorption of Pathogens, Nanoparticles, Biocolloids, and Trace Organics in Aquatic Systems, PACIFICHEM 2010, Honolulu Hawaii Dec. 10-15, 2010.
116. “Comparative roles of photolysis and OH radical in the UV AOP process” Symposium on Chemistry of Ultraviolet Treatment for Water, PACIFICHEM 2010, Honolulu Hawaii Dec. 10-15, 2010.
117. “UV-Based Technology for Point-of-Use Water Disinfection in Developing Communities” University of California at Davis, Department of Civil and Environmental Engineering. Oct. 13, 2010
118. “Investigations on the Extreme Resistance of Adenoviruses to UV Disinfection” Department of Civil and Environmental Engineering, University of Alberta, Edmonton, Canada, Oct. 7, 2010
119. Science and Technology of Dispersants Relevant to Deep Sea Floor Oil Releases, Participant, National Science Foundation Workshop Washington DC Sept. 22, 2010
120. “Water Reuse 2030: Identifying Challenges” Closing International Panel, 25th Annual WaterReuse Symposium, WaterReuse Research Foundation, Washington DC, Sept. 15, 2010.

121. “Investigations on the Extreme Resistance of Adenoviruses to UV Disinfection” Department of Civil, Environmental, and Architectural Engineering, University of Colorado, Boulder, Sept. 8 2010
122. National Academy of Engineering, Frontiers in Engineering First US-EU Workshop, Invited Attendee. Poster Presented, Cambridge, England, Sept. 1-3, 2010
123. “Emerging Issues in Medium Pressure UV Applications in Water: Pathogens, Organic Matter, and Emerging Contaminants”, Hanovia/Halma Group Inc., Slough UK Aug. 30, 2010.
124. “Environmental Sustainability and Water Reuse – applications in Peru”, Prosul: VI Workshop Latinamericano; Universidad Catolica, San Pablo, Arequipa, Peru, Aug. 11-12, 2010.
125. “UV Disinfection: an Emerging Technology for Safe Water” Mini-Course. Prosul: VI Workshop Latinamericano; Universidad Catolica, San Pablo, Arequipa, Peru, Aug. 11-12, 2010.
126. “Advanced Issues in UV Water Treatment” Atlantium Technologies Industry, Bet Shemesh Israel, July 7, 2010
127. “UV Disinfection: a technology review for applications to wetlands effluent”, Regional Research & Development Center, the Galilee Society, Shefa-Amr, Israel. July 6, 2010
128. “UV Disinfection Differences Between LPHO and MP: the curious case of adenoviruses and disinfection byproduct implications”, UV Today – Ten Years Post-*Cryptosporidium*– Myths and Reality. American Water Works Association Annual Conference and Exhibition, Chicago, IL, June 20, 2010
129. “Environmental Sustainability: The Water (Re)Cycle” NSF REU Program Students, Department of Civil, Environmental, and Architectural Engineering, University of Colorado, Boulder, June 14 2010
130. “Training: UV Disinfection of Wastewater – Fundamentals and Emerging Issues” City of Boise, Boise, ID, June 2, 2010
131. “Training: UV Advanced Oxidation for Contaminant Destruction” City of Aurora, CO Training Seminar for start up of the Prairie Waters Water Purification Plant, Aurora, CO, May 7, 2010
132. “Communicating Science: Tools for Scientists and Engineers” Workshop, American Association for the Advancement of Science and the National Science Foundation, Invited Attendee, April 29, 2010
133. “Advanced Oxidation Processes in Water and Wastewater Treatment” Rocky Mountain Water and Wastewater Plant Operators School, Broomfield, CO, March 16, 2010.
134. “Investigations on the Extreme Resistance of Adenoviruses to UV Disinfection” Eawag - Swiss Federal Institute of Aquatic Science and Technology, Dübendorf, Switzerland, Feb. 18, 2010
135. US EPA Water Reuse Research Needs Workshop, Invited Attendee, UNC-Chapel Hill Feb 3-4, 2010

136. "Investigations on the Extreme Resistance of Adenoviruses to UV Disinfection"
Department of Civil and Environmental Engineering, University of Michigan, Ann
arbor, Jan. 6, 2010
137. WaterReuse Foundation Research Needs Workshop, Invited Attendee, San Diego, CA
Dec 1-3, 2009
138. "Application of recent advances in process technology: Progress in Advanced
Oxidation". AWA Australian Water Association Technical Event, Rendevious hotel,
Melbourne, Australia, Sept. 29, 2009,
139. "Water Reuse 2030: Identifying Challenges". Invited Keynote plenary talk: WaterReuse
Foundation Research Needs Workshop, San Diego, CA Dec. 1-3, 2009
140. "Meeting the Millennium Development Goals: Safe Water and Sanitation" AWWA
Water Quality Technology Conference Sunday Workshop: "*Creating Sustainable
Water Quality in International Development*", Nov. 15, 2009
141. "Innovative Treatment Technologies for Water Reuse" CH2MHill Company-wide
webcast, Oct. 20, 2009.
142. "UV-Advanced Oxidation for Contaminant Destruction" Black and Veatch Company-
wide Web-cast. Sept. 1, 2009.
143. "UV AOP Performance and Evaluation for Contaminant Destruction", Sunday
Workshop: UV and Ozone Advanced Oxidation Processes – Practical Information on
an Emerging Treatment Approach, AWWA Annual Conference and Exhibition, June
14, 2009, San Diego, CA
144. From PAHs to Organophosphates: Photolytic Fate in Engineered and Natural Systems,
Soil and Crop Science Seminar Series, Colorado State University, May 7, 2009
145. "Advanced treatment technologies for removal of pathogens and chemical pollutants
for water reuse" Environmental Chemistry Section, 237th ACS National Meeting and
Exhibition – Salt Lake City, UT, March 23, 2009
146. "UV-Advanced Oxidation: Principles UV Advanced Oxidation and UV New
Applications" International UV Association 1-day Workshop, Long Beach, CA, March
12, 2009
147. "Directions in Water Treatment Technology - Implementation of improved and
expanded treatment technology and management options that enhance reliability and
performance of water and wastewater systems, including those in small and remote
communities" Keynote Speaker, Canadian Water Network Researchers Retreat,
Victoria, Vancouver Island, BC, Canada. June 24-26, 2008.
148. "Advancements in UV/Hydrogen Peroxide AOP", Keynote Speaker, Leading Edge
Technologies Conference, International Water Association, Zurich, Switzerland, June
1-4, 2008.
149. "Formation of Byproducts During Water Treatment by UV-AOP", Disinfection
Byproducts Workshop, Leading Edge Technology Conference, Zurich, Switzerland,
June 1-4, 2008

150. "From Polycyclic Aromatic Hydrocarbons to Organophosphates: Photolytic Fate in Engineered and Natural Systems" June 11, 2008, Superfund Basic Research Program Special Seminar Series presented at NCEH/ATSDR Atlanta, Georgia.
151. "Validation Implications Adenoviruses and the Ground Water Rule" Special Workshop on the UV Disinfection Guidance Manual at the AWWA Water Quality Technology Conference, Cincinnati, OH Nov. 16-19, 2008 Linden, K. et al.
152. "What's Happening in Water Reuse Research at CU Boulder?" Presentation to Front Range Drinking Water Consortium, CO, May 14, 2008.
153. "UV-Advanced Oxidation Process: Treatment of EDCs and PPCPs in Drinking Water" Presented to the Michigan, AWWA section, Lansing, MI May 20, 2008
154. "UV-Based Advanced Treatment Technology for Water Reuse" Sustainable reuse of WW in Agriculture – US-Israeli Binational Science Foundation, Haifa, Israel. Nov. 2008
155. "UV-Advanced Oxidation Process: Treatment of EDCs and PPCPs in Drinking Water" Presented at Center for Water Science, Cranfield University, UK May 28, 2008
156. "Fundamentals of UV-Based Advanced Oxidation Processes", Special Workshop at Veolia Environment, Brisbane, Australia, October 26, 2007
157. "Validation of UV Disinfection Systems: Lessons from the US EPA UV Disinfection Guidance Manual" Workshop with engineering consultants, water utilities and government regulators, Brisbane, Australia, October 26, 2007
158. "Validation of UV Disinfection Systems: Lessons from the US EPA UV Disinfection Guidance Manual" Workshop with engineering consultants, water utilities and government regulators, Sydney, Australia, October 25, 2007
159. "Ultraviolet Light: Beyond Water Disinfection", University of New South Wales, Sydney, Australia, October 24, 2007.
160. "Validation of UV Disinfection Systems: Lessons from the US EPA UV Disinfection Guidance Manual" Workshop with engineering consultants, water utilities and government regulators, Melbourne, Australia, October 23, 2007
161. "Applications of Advanced Oxidation Processes to Water Pollutants" and "Treatment of Chemical Contaminants with UV-AOP: The Pros and the Cons" Advanced Oxidation Workshop, Royal Melbourne Institute of Technology, Melbourne, Australia, October, 22, 2007
162. "Environmental Sustainability: The Water (Re)cycle", A Public Lecture in Storey Hall, Royal Melbourne Institute of Technology, Melbourne, Australia, October, 18, 2007
163. "UV Disinfection: The Next Generation" post-grad mini symposium, RMIT University, Melbourne, Australia, October 16, 2007.
164. "UV Treatment: An Age-old Emerging Technology for Safe Water", Guest Lecture, Advanced Environmental Class, RMIT University, Melbourne, Australia, October 9, 2007

165. "Production and Destruction of Disinfection Byproducts by UV and Advanced Oxidation Processes" in Organic Byproducts of Potential Health Concern Produced During Drinking Water Treatment Workshop, *AWWA Water Quality Technology Conference*, Nov 4-8, 2007, Charlotte, NC
166. "Treatment of Chemical Contaminants with UV-AOP: The Pros and the Cons" in Advanced Oxidation Technologies in Water Treatment: Fundamentals and Applications Workshop, *AWWA Water Quality Technology Conference*, Nov 4-8, 2007, Charlotte, NC
167. Safe Water Keynote: UV Technologies and the Future of Water Treatment. Frontiers of Science – National Academy of Engineering, September 24-26, 2007; Seattle Washington
168. "Advanced Oxidation: an emerging process for clean water" Chemeca 2007, September, 2007, Melbourne Australia. Invited Keynote. [Note: Declined Invite]
169. "Fundamentals and advances in UV based advanced oxidation processes", Leading Edge Technology Conference, International Water Association, June 4-7 2007, Singapore.
170. "Ultraviolet Light Water Purification", University of Colorado Engineers Without Borders, Boulder CO, April 28, 2007
171. "UV Disinfection: The Next Generation" Arizona State University, Tempe AZ, April 24, 2007
172. "UV Photolysis and UV-Based Advanced Oxidation Processes" CIRSEE Workshop on Organic Byproducts of Potential Health Concern Produced During Drinking Water Treatment, Paris, France, March 5-9, 2007
173. "Fundamentals of UV based advanced oxidation processes" and "Destruction of N-nitrosodimethylamine and endocrine disrupting contaminants via UV advanced oxidation" at the Southeastern Technology Transfer Conference, January 24-25, 2007, Greenville, SC.
174. "UV/H₂O₂ Degradation of EDCs in Water Evaluated via Toxicity Assays" Research Development Group – HACH Corp, Loveland, CO. Nov 9, 2006.
175. "Ultraviolet Light: Beyond Drinking water Disinfection" Water Engineering Group, CH2MHill, October 11, 2006. Denver, CO
176. "Ultraviolet Light: Beyond Drinking water Disinfection" Environmental Engineering Seminar Series, Colorado School of Mines, October 19, 2006. Golden, CO
177. "Ultraviolet Light-Based destruction of Endocrine Disrupting Compounds" Awwa Research Foundation Monthly Tech Talk – Sept. 13, 2006, Denver, CO.
178. "Ultraviolet Light Induced Disinfection Byproducts: Realities and Challenges" Swiss Federal Institute for Environmental Science and Technology (EAWAG), von Gunten Lab group, May 18, 2006,
179. "UV Disinfection and the Long Term 2 Enhanced Surface Treatment Rule" NC AWWA Section Special Workshop on LT2 Compliance June 7, 2006

180. "Ultraviolet Light: Beyond Drinking water Disinfection" Environmental Engineering Seminar Series, University of Colorado at Boulder Jan. 18, 2006, Boulder, CO
181. "UV-Based Advanced Oxidation for Emerging Contaminants" University of Massachusetts, March 30, 2006, Amherst, MA
182. Vietnamese Government workshop on Water Pollution Prevention Technologies, Hanoi Vietnam, Nov. 15-16, 2005, "Ultraviolet light disinfection and beyond"
183. Institute of Environmental Technology, Vietnamese Academy of Science and Technology, Hanoi, Vietnam, Nov. 17, 2005. "UV Oxidation and Subsequent Toxicity of Endocrine Disrupting Chemical in Water"
184. Tel Aviv Israel – First Mid-East Conference on UV Technologies. Nov. 20-22, 2005 "Fundamentals of UV light based processes"
185. Yale University, Chemical and Environmental Engineering Department. Sept. 28, 2005 "UV-its not just for disinfection anymore: oxidation of emerging contaminants"
186. State of the Science on Adenovirus, Expert Workshop, AWWA, Sept. 26-27, 2005 "Efficacy of water treatment for adenoviruses and other viruses"
187. "Wait, wait, don't pump" Public Policies Before and After Hurricane Katrina: Government Responses and Environmental Choices. Terry Sanford Institute of Public Policy, Duke University, Sept. 8, 2005
188. NC AWWA: Stage 2 M/DBP Rules NCSU McKimmon Center Raleigh, June 7, 2005 "UV Disinfection for LT2ESWTR"
189. University of Tokyo Center for Sustainable Urban Regeneration Program, Oct. 7, 2004, "Ultraviolet Based Disinfection and Advanced Oxidation Processes for Drinking Water Treatment"
190. Swiss Federal Institute for Environmental Science and Technology (EAWAG), von Gunten Lab group, Sept 20, 2004, "UV and UV/H₂O₂ degradation and subsequent toxicity of endocrine disrupting chemicals in water"
191. US EPA Office of Water (2004) "Ultraviolet Disinfection and UV-Advanced Oxidation Research" Cincinnati, Ohio, Sept. 9, 2004
192. Gordon Research Conference on Environmental Science: Water (2004): Holderness School, Plymouth, NH, June 27 – July 1, 2004 – Workshop.
193. US EPA Science Advisory Board Meeting (2004) Poster: "UV light based treatment processes for emerging microbial and chemical contaminants" US EPA, Research Triangle Park, NC, May 24-25, 2004.
194. Emerging Contaminants (EDCs and PhACs) Tech Transfer Conferences (2004): "UV photolysis and oxidation for destruction of EDCs in drinking water", Oakland, CA, May 20, 2004, Awwa Research Foundation
195. Advancing the Quality of Water, National Science Foundation Workshop at UNC Chapel Hill. March 10-12, 2004. Invited Workshop Participant.
196. Kansas University Environmental Engineering Conference, (2004) "UV disinfection and EPA guidance: Where do we go from here?" Lawrence Kansas, February 4, 2004.

197. Swiss Federal Institute for Environmental Science and Technology (EAWAG), Nov 21, 2003, "Kinetic Screening of Candidate Contaminant List (CCL) Chemicals for Treatment by Advanced Oxidation Processes"
198. KIWA-Netherlands "Investigation of an on-line fluence meter for UV disinfection", progress review. Nov 12, 2003
199. IWA First Leading Edge Conference: Drinking Water and Wastewater Treatment Technologies, (2003) "UV and UV-advanced Oxidation processes for removal of EDCs in water", Noordwijk, The Netherlands, May 26-28, 2003.
200. UV Technology Transfer conferences, American Water Works Association Research Foundation (AwwaRF) in Chicago (April 8, 2003), Los Angeles (Sept 9, 2003), Boston (May 16, 2003). 2 presentations: "What Else Can UV Do (or NOT do) for Me?: UV Light for Contaminant Degradation in Water" and "Measurement of UV Fluence at the Bench and Full Scale".
201. International UV Association 2nd International Congress on UV Technologies: UV Disinfection Workshop, talk and demonstration, July 9, 2003, "UV Basics for Disinfection Applications"
202. DVGW UV Workshop, Siegburg, Germany. "Alternative Monitors for UV reactors: Impact on Validation and Operation", July 7, 2003
203. EPA Science Forum 2003. May 5-7, 2003, "UV light based treatment processes for emerging microbial and chemical contaminants", Poster Session.
204. University of Vienna, Department of Environmental Hygiene, March-April, 2003, "Balancing chemical and microbial risks in drinking water treatment" Seminar Series.
205. Swiss Federal Institute for Environmental Science and Technology (EAWAG), April 5, 2003, "Ultraviolet Light Photolysis and Advanced Oxidation of Emerging Contaminants in Drinking Water".
206. International UV Association Texas Regional Workshop, "UV light Disinfection of Water: Fundamentals" Austin, TX. February 27, 2003.
207. Linden, K.G. (2003) Symposium: Treatment Methods for Inactivation of Pathogens in Juice, "UV Light Basics for Treatment of Juice", National Center for Food Safety & Technology, Orlando FL, Feb 20-21, 2003.
208. North Carolina Central University – Emerging Technologies Series. "UV treatment of endocrine disrupting contaminants", Invited February 11, 2003.
209. UV Disinfection Workshop, AWWA Water Quality Technology Conference, Seattle, Washington, November 10, 2002, "UV Dose-Response of Drinking Water Pathogens"
210. Department of Civil and Environmental Engineering, University of Colorado at Boulder, Special Friday Seminar November 8, 2002, "UV Inactivation of Cryptosporidium and Other Drinking Water Pathogens"
211. AWWA Emerging Treatment Technologies Teleconference: Nation-wide broadcast from AT&T Studios, Denver, CO, November 7, 2002, "Emerging Treatment Technologies: UV Light"

212. UV for Cryptosporidium Workshop for the Scottish Executive, Edinburgh, Scotland, October 31, 2002, "Challenges to Accurate Measurement of UV Fluence: Bench and Full Scale"
213. Technologies to Meet Cryptosporidium - Workshop, Birmingham, England, October 29, 2002, "UV Inactivation of Cryptosporidium and other Drinking Water Pathogens"
214. International UV Association Midwest Regional Workshop, Milwaukee, WI. September 23, 2002, "Fundamentals of UV Disinfection"
215. International UV Association Southern Regional Workshop, Tampa, FL. September 6, 2002, "Fundamentals of UV Disinfection"
216. Drinking Water Research Center Symposium, International Ozone Association Annual Conference. May 22, 2002, "Ultraviolet light disinfection of water"
217. Drinking Water Leadership Program: UNC Kenan Flagler Business School. April 24, 2002, "Ultraviolet Light for Water and Wastewater Treatment *Facts and Fiction*"
218. Expert Workshop on identifying research needs UV in drinking water treatment: Scientific foundation of successful application. Kiwa Water Research at Nieuwegein, Netherlands. March 22, 2002, "From Collimated Beam to Full Scale UV Treatment"
219. Borchardt Conference 2002, University of Michigan, Ann Arbor MI. February 27, 2002, "Ultraviolet Light and Advanced Oxidation Processes for Drinking Water Treatment"
220. South Carolina AWWA Technology Transfer Conference. January 24-25, 2002, "Primer on UV Light Technology" and "UV Light for Disinfection and Contaminant Degradation in Water"
221. Government of Hong Kong, Water Supplies Department, "UV Disinfection for Control of Cryptosporidium and Giardia in Water", December 17, 2001, China
222. Government of Hong Kong, Drainage Services Department, "UV applications in Wastewater Disinfection" December 18, 2001, China
223. Binnie Black & Veatch Engineering Consultants, "UV Disinfection for Drinking Water, Engineering Applications", December 19, 2001, Hong Kong, China
224. Virginia AWWA Section Seminar Series; "UV Disinfection: Determination of UV Dose", May 1, 2001, Richmond, VA
225. Water Quality Association Annual Conference and Exhibition, "The Growing Importance of UV in Water Treatment", March 31, 2001, Orlando, FL.
226. Department of Civil Engineering, NC State University "Ultraviolet Light Photolysis and Advanced Oxidation of Contaminants in Drinking Water", Environmental Engineering Seminar Series, November 19, 2001
227. AWWA Water Quality Technology Conference, Nashville, TN, "UV Disinfection: Determination of UV Dose in a Collimated Beam and in a UV Reactor" Turning the Lights On: UV Disinfection Workshop, November 11-14, 2001

228. UV for Drinking Water Seminar, “Recent Advances in UV Research”, Boston, MA, November 5, 2001
229. UV for Drinking Water Seminar, “Overview of the UV Guidance Manual”, Boston, MA, November 5, 2001
230. NC AWWA Drinking Water Seminar Series; “Determination of UV Dose in Bench and Full Scale UV Reactors”, UV Disinfection for Drinking Water: Its Coming. October 29, 2001, Raleigh, NC
231. First International Congress on UV Technologies, “UV Disinfection: Determination of UV Dose in a Collimated Beam and in a UV Reactor” UV Disinfection Basics Workshop, International Ultraviolet Association Washington DC, June 14-16, 2001
232. UV Disinfection Workshop, “UV Basics”, Kansas City, Kansas, March 21, 2001
233. UV Disinfection Workshop, “UV Disinfection for Water: Reactor Dose Validation”, Kansas City, Kansas, March 21, 2001
234. *Water Quality Technology Conference, AWWA*, “UV Collimated Beam Testing” UV Fundamentals Workshop, Utah Valley Water Treatment Plant, Salt Lake City, UT. November 4-8, 2000
235. *International Conference on Applications of Ozone, International Ozone Association, at Wasser Berlin*, “Evaluating germicidal dose from UV sources with actinometry – theoretical considerations” Berlin Germany, October 23-26, 2000.
236. Advanced Oxidation Technologies International Congress, “Applications of chemical actinometry for measurement of polychromatic UV irradiance” London, Ontario, Canada, June 26-30, 2000
237. Trojan Technologies Inc., “Inactivation of *Giardia lamblia* and *Cryptosporidium* in water” London, Ontario, Canada, June 25, 2000
238. Keynote Presentation, Trojan Technologies Inc. UV Luncheon Forum at AWWA Annual Conference and Exhibition, “UV Disinfection for *Giardia* and *Cryptosporidium* in Drinking Water” Invited Denver, CO, June 12, 2000
239. Israeli Bi-national Science Foundation Workshop, “Ultraviolet disinfection: advances in dose measurement and disinfection efficiency” Invited Participant, Tel Hai Academic College, Kibbutz Kfar Giladim, Upper Galilee Israel, March 8-10 2000.
240. UV 2000 Technical Symposium, "UV Dose Verification Using Chemical Actinometry and Biodosimetry Methods", Invited presentation, National Water Research Institute, Costa Mesa, CA January 27-28, 2000
241. UNC-Charlotte Professional Development Series, “Physical and Chemical Treatment Fundamentals for Water and Wastewater” November 12, 1999
242. Duke University Mechanics and the Environment Research Colloquia, "Physical and chemical models for evaluation of germicidal UV irradiance" Oct. 20, 1999.
243. Drinking Water Research Needs Workshop, Expert Participant, US EPA, AWWARF, Sept. 27-29, 1999

244. *USEPA Workshop on UV disinfection of drinking water*, “Ultraviolet Disinfection: Factors affecting UV Dose” invited: Washington, DC, April 28, 1999.
245. *USEPA ICR Stakeholders Meeting*, “Ultraviolet Disinfection: Inactivation of Microorganisms” invited: Washington, DC, March 12, 1999.
246. *University of Cincinnati*, “Ultraviolet Disinfection: Understanding Germicidal UV Intensity for Evaluation of New UV Technologies” invited: Cin., OH, Feb 25, 1999.
247. UNC-Charlotte PDH Series, “Physical and Chemical Treatment Fundamentals for Water and Wastewater” November 6, 1998
248. UNC-Charlotte Spotlight on Research “Disinfection of water and wastewater” (for television broadcast) series September 24, 1998
249. UNC-Charlotte MEGR 5090: “Introduction to Bioremediation” Biotechnology and Bioengineering, February, 1998
250. North Carolina Urban Water Consortium, “UV Disinfection in North Carolina: Needs for Assessment” February, 1998
251. Trojan Technologies Inc., “Determining UV dose in medium pressure UV systems” London, Ontario, Canada, September 17, 1997
252. Maxwell/PurePulse Technologies, “Advances and issues in UV disinfection” San Diego, CA June 3, 1997
253. NC Water Resources/Environmental Engineering Teleconference Series “UV disinfection: determining true UV absorbance and subsequent estimation of UV intensity”, April 23, 1997
254. Indian Institute of Technology, “Anaerobic treatment of municipal solid waste” Kanpur, India, January, 1992.

Posters Presented at Conferences

1. [Need updates for 2019-20]
2. Hull NM, Rosenblum JA, Robertson CE, Harris JK, and Linden KG (Nov 2018). Fracking Flowback Long-Term Succession of Microbial Communities and Toxicity. Water Quality Technology Conference, Toronto, Ontario, Canada.
3. Valcourt, N., Walters, J., Javernick-Will, A., Linden, K. (2018). An Interactive Group Model Building Process for Mapping Complexities of Local WASH Systems. Poster presented at the Water and Health Conference, University of North Carolina at Chapel Hill: The Water Institute.
4. Valcourt, N., Javernick-Will, A., Walters, J., & Linden, K. (2018). Systems Approaches to WASH: A Systematic Literature Review. Poster presented at the Water and Health Conference, University of North Carolina at Chapel Hill: The Water Institute.
5. Murphy, J. "Coupled UV-Membrane and Oxidant - Membrane Processes For Decreased Biofouling and Enhanced Flux in Water Reclamation Applications".

- Joanna R. Murphy, Dr. Karl G. Linden. MAST IAB Meeting. November 4, 2018. Boulder CO. Poster.
6. Murphy, J. "Coupled UV-Membrane and Oxidant - Membrane Processes For Decreased Biofouling and Enhanced Flux in Water Reclamation Applications". Joanna R. Murphy, Dr. Karl G. Linden. MAST IAB Meeting. May, 22 2018. State College, PA. Poster.
 7. Hull NM, Holinger EP, Ross KA, Robertson CE, Harris JK, Stevens MJ, and Pace NR (May 2017). Longitudinal and Source-to-Tap New Orleans, LA, USA Drinking Water Microbiology. Concurrent International Symposium on Health-Related Water Microbiology Conference and Water Microbiology Conference, Chapel Hill, NC, USA.
 8. Keliher, Kari, Linden, 2017, UV/LED Applications for Disinfection of Small Water Systems: Water Treatment Reactor for Aircraft, Discovery Learning Research Symposium, April 14th
 9. Kimberly Pugel; Amy Javernick-Will, Nicholas Valcourt, Jeffrey Walters; Matthew Guttentag; Karl Linden; Daniel Hollandar; Eddy Perez (2017) "Understanding actor perspectives in collaborative partnerships for rural water service planning and management in Ethiopia" UNC Water and Health Conference, October 2017
 10. Linden, KG (2017) MP or Not MP: Exploring Advantages and Disadvantages of Polychromatic UV Sources in Water treatment, AWWA WQTC Portland, November 2017
 11. Kingdom, J. Evaluating Optical Measurements to Distinguish Organics Present in Wastewater and Natural Water, DLA Symposium
 12. Murphy, JR, K.G. Linden. Coupled UV-Membrane and Oxidant - Membrane Processes For Decreased Biofouling and Enhanced Flux in Water Reclamation Applications. Poster Presented at: MAST Center Industrial Advisory Board Meeting 2017 Apr 22-24. Fayetteville AK.
 13. Murphy, JR., K.G. Linden. Coupled UV-Membrane and Oxidant - Membrane Processes For Decreased Biofouling and Enhanced Flux in Water Reclamation Applications. Poster Presented at: MAST Center Industrial Advisory Board Meeting 2017 Oct 22-24. Newark, NJ.
 14. Yacob, T. Odors in Fecal Sludge Management: Sources, Impacts, and Control using Adsorption and Biofiltration. UNC Water and Health Conference October 2016. Authors: Kate Stetina, Tesfayohanes Yacob, Karl Linden, Stewart Farling, Siddharth Kawadiya, Kathy Jooss, Marc Deshusses.
 15. Yacob, T., Stetina, K., Farling, S., Kawadiya, S., Jooss, K., Deshusses, M., Linden, K.G. (2015) "Odors in Fecal Sludge Management: Sources, Impacts, and Control using Adsorption and Biofiltration" Water and Health Conference, Oct 26 - 30, 2015. University of North-Carolina, Chapel Hill, NC.
 16. Neethling, J., Yacob, T., Linden, K.G. (2015) "Continuous Flow Applications for Managing Source-Separated Urine Nutrient Recovery". HumTec. Boston MA, May 2015

17. Bolton, J.R., Mayor-Smith, I., Linden, K.G., Beck, S.E., Stefan, M.I. (2014) “Fluence (UV dose) – an Outdated Concept?” AWWA Water Quality Technology Conference, New Orleans, LA. November 16-19, 2014. Poster
18. Mostafa, S., Rubinato, M. Rosario, F., Linden, K.G. (2014) “Killing pathogens in treatment ponds: predicting the role of sunlight from wastewater optical properties” Water and Health Conference - Where Science Meets Policy. University of North Carolina, October 13-17, 2014. Poster
19. Travis, E., Yacob, T., Summers, R.S., Linden, K.G., “Hydrogen Sulfide Adsorption onto Human Feces-Derived Biochar Creating Marketable Products from Human Waste” Water and Health Conference - Where Science Meets Policy. University of North Carolina, October 13-17, 2014. Poster
20. Neethling, J., Mahoney, R.B., Stetina, K., Yacob, T., Linden, K.G., Summers, R.S. (2014) “Recovery of nutrients from source-separated urine via biochar adsorption and precipitation” Water and Health Conference - Where Science Meets Policy. University of North Carolina, October 13-17, 2014. Poster
21. Yacob, T., Fisher, R., Linden, K., Weimer, A. (2014) “Pyrolysis Kinetics of Fecal Sludge: Experiments and Modeling” Water and Health Conference - Where Science Meets Policy. University of North Carolina, October 13-17, 2014. Poster
22. Sitterley, K.A., Rosenblum, J., Lester, Y., Linden, K., (2014) “Evaluating Coagulation Followed by a Moving Bed Bioreactor (MBBR) as a Pretreatment for Highly Saline Produced Water” Rocky Mountain Water Reuse Workshop, August 14, 2014, Poster
23. Hallowell, R., Linden, K.G., (2014) Toxicological Assessment of photodegraded crude oil and crude oil-dispersant mixtures on marine species, *Arbacia punctulata*, *Mysidopsis bahia*, and *Vibrio fisheri*. GoMRI Research Conference, Mobile, Alabama Jan 26-30, 2014, Poster
24. Lester, Y., Yacob, T., Sitterley, K.A., Duca, C., Morrissey, I., Linden, K.G. (2014) “Treating Fracturing Flowback by Biological and Advanced Oxidation Processes” SRN Research Forum, University of Colorado Boulder, Jan 22-23, 2014, Poster
25. Parker, A.M.; von Gunten, U.; Linden, K.G.; “Toxicological Assessment of UV/Ozone – AOP Transformation Products” – Poster Symposium – Annual Conference and Exposition – American Water Works Association: June 9-12, 2013.
26. Yacob, T.; Fisher, R.; Mahoney, R.; Kearns, J.; Ward, B.J.; Summers, R.S.; Linden, K.; Weimer, A. Fecal sludge treatment by pyrolysis: characterization of exhaust gas and odor treatment. Water and Health Conference, University of North-Carolina, Chapel Hill, NC. October 14-18, 2013.
27. Yacob, T.; Mahoney, R.; Beck, S.; Ruiz, A.; Kearns, J.; Oversby, C.; Summers, R.S.; Linden, K. Disinfection and nutrient recovery of source diverted urine. Water and Health Conference. University of North-Carolina, Chapel Hill, NC. October 14-18, 2013.
28. Parker, A.M.; von Gunten, U.; Linden, K.G.; “Evaluating the use of AOPs for Treating CCL3 Contaminants.” Poster Presentation. Water Quality Technology Conference, Long Beach, CA – November 4, 2013.

29. Linden, K.G., Summers, S., Bielefeldt, A.R., Klees, R., Sandekian, R., Amadei, B., Chinowsky, P. (2013) "Engineering for Developing Communities (EDC) Program at the University of Colorado" Association of Environmental Engineering and Science Professors (AEESP) Bi-annual meeting, Environmental Engineers and Scientists of 2050: Education, Research, and Practice. Golden, CO July 14-16 2013
30. Rodriguez, R.A.; Bounty, S.; Beck, S.; Chan, C.; McGuire, C.; Linden, K.G. UV inactivation of Bacteriophages and their potential photo-reactivation. General Meeting of the American Society for Microbiology, Denver, Colorado May 19-21, 2013
31. Kover, S., Rosario-Ortiz, F., Linden, K.G. (2013) "Photo-induced Degradation of Corexit Constituents" Gulf of Mexico Research Institute Oil Spill and Ecosystem Annual Conference, New Orleans LA., January 20-23, 2013
32. Linden, K.G., Dehart, J. (2013) "Routes to Sustainability: Natural gas development and air and natural resources in the Rocky Mountain Region" presented at the Coalition for National Science Funding Investments in STEM Research and Education 19th Annual Exhibition and Reception, May 5, 2013.
33. Nelson-Nunez, J., Mahoney, R.; Mostafa. S.; Linden, K. "Getting Local Government Involved In Rural Water Services." 2013 UNC Water and Health Conference, Chapel Hill, NC, October 17, 2013.
34. Bounty, S., Rodriguez, R., Linden, K. (2011) "Molecular Mechanisms of Adenovirus Resistance to Ultraviolet Disinfection", Water Quality Technology Conference, November 13-16, 2011 (First Place – Best Poster of Conference)
35. Brooks, T., Dotson, A.D., Linden, K. (2011) "Nitrate Sensitized Degradation of Free Chlorine during Ultraviolet Irradiation", Water Quality Technology Conference, November 13-16, 2011.
36. Keen, O. and Linden, K. (2011) Degradation of antibacterial activity of antibiotics during UV/H₂O₂ advanced oxidation. EPA Fellows Conference, Washington, DC, September 19-20, 2011
37. Keen, O.S., Thurman, E. M., Ferrer, I., Dotson, A.D. and Linden, K.G. (2011) Degradation products of pharmaceutical diclofenac during UV photolysis. Annual Mass Spectrometry Workshop, Buffalo, NY, June 13-14, 2011
38. Glover, C.M., Parker, A.M., Linden, K.G., Rosario-Ortiz, F. (2011) "Photochemical Degradation of COREXIT in Surface Ocean Water" American Chemical Society National Conference, Anaheim, CA, March 27-31, 2011
39. Barstow, C., Dotson, A., Linden, K.G. (2010) "Development of a POU UV Device for Household Water Disinfection", Where Science Meets Policy, UNC Water Institute, Chapel Hill, NC Oct 24-26, 2010
40. Chatterley, C., Linden, K.G. (2010) "Local Perspectives and Challenges to Cleaning up School WASH in the Peruvian Amazon" Where Science Meets Policy, UNC Water Institute, Chapel Hill, NC Oct 24-26, 2010

41. Parker, A-M, McIntosh, C., Dotson, A.D., Linden, K.G. (2010) "Modeling the hydroxyl radical scavenging potential of natural waters" Gordon Research Conference, Environmental Sciences: Water. Holderness, New Hampshire, June 20-25, 2010
42. Dotson, A.D., Beggs, K., Linden, K.G. (2010) "Phototransformation of natural organic matter during UV disinfection of drinking water" Gordon Research Conference, Environmental Sciences: Water. Holderness, New Hampshire, June 20-25, 2010
43. Barstow, C., Chatterley, C., Linden, K (2010) "UV-LEDs for Point-of-Use Water Disinfection in Developing Communities" Water Science Day, University of Colorado, June 23, 2010
44. Cotton, C., Collins, J., Jousset, S. Dotson, A., Linden, K.G. (2010) "Selection of Hydrogen Peroxide Quenching Process for AOP Treatment: Options, Water Quality Issues, and Costs" AWWA ACE, Chicago, IL, June 20-24, 2010
45. Barstow, C., Chatterley, C., Linden, K (2010) "UV-LEDs for Point-of-Use Water Disinfection in Developing Communities" Rocky Mountain WEA/AWWA Student Conference, University of Colorado, May 18, 2010
46. Brooks, T., Dotson, A., Linden, K.G. (2010) "Enhanced UV photolysis of free chlorine in the presence of nitrate" Rocky Mountain WEA/AWWA Student Conference, University of Colorado, May 18, 2010
47. Keen, O., Thurman, E.M., Ferrer, I., Dotson, A., Linden, K.G. (2010) "Degradation and products of the pharmaceutical Diclofenac during UV Photolysis" American Chemical Society National Meeting in San Francisco, CA, March 21-24, 2010
48. Ruiz-Haas, P., Cho, K-D., Linden, K.G. (2010) "Comparative Evaluation on Fate and Treatability of Estrogenic Contaminants in Conventional Wastewater Treatment Plants" American Chemical Society National Meeting in San Francisco, CA, March 21-24, 2010
49. Barstow, C., Chatterley, C., Linden, K (2010) "UV-LEDs for Point-of-Use Water Disinfection in Developing Communities", Graduate Student Visitation Day, University of Colorado. March 5, 2010
50. Lyon, B. Howard Weinberg, Ana M. Sáenz de Jubera, Jennifer Chu, Sara Rodriguez-Mozaz, Karl Linden, Aaron Dotson, (2009) "Relationship Between Natural Organic Matter Polarity and Disinfection Byproduct Formation During Ultraviolet Treatment and Disinfection of Drinking Water" Micropol and Ecohazard 2009 June 8-10, 2009, San Francisco, CA
51. Chatterley, C., Linden, K., (2008) "UV-LEDs for Point-of-Use Water Disinfection in Developing Communities" Energy Initiative Research Symposium, University of Colorado, Boulder, CO, November 17, 2008
52. Watts, M.J., Linden, K.G. (2007) "OH-Radical Oxidation of Chlorinated Organophosphate Esters" *AWWA Water Quality Technology Conference*, Nov 4-8, Charlotte, NC
53. Rosenfeldt, E.J., Linden, K.G. (2006) "Destruction of estrogenic activity in water using UV oxidation technology" *Gordon Research Conference: Environmental Science – Water*. Holderness School, Plymouth, NH, June 26 - 30 2006.

54. Mamane, H., Shemer, H. Linden, K.G. (2006) “Advanced Oxidation of Viruses and Microorganisms” *4th IWA Specialist Conference Oxidation Technologies for Water and Wastewater Treatment* May 15-17, 2006, Goslar Germany
55. Schaefer, R., Grapperhaus, M. Linden, K.G., Bohrerova, Z., Mamane, H. (2005) “Improved Disinfection with a New Pulsed UV Lamp” *WEF/AWWA Disinfection 2005*, Phoenix, AZ, February 6-9, 2005
56. Linden, K.G., Rosenfeldt, E.J., Chen, P.J., Kullman, S.W. (2004) “Effect of UV based treatments on endocrine disrupting chemical bio-activity in water” *Gordon Research Conference Environmental Science: Water* Holderness School, Plymouth, NH, June 27 – July 1, 2004.
57. Chen, P.J., Rosenfeldt, E.J., Linden, K.G., Kullman, S.W. (2004) “Effect of UV based treatments on endocrine disrupting chemical bio-activity in water” Research Division: *Annual Conference and Exhibition of the American Water Works Association*, Orlando, FL, June 13 –16, 2004.
58. Mamane-Gravetz, M., Linden, K.G. (2003) “UV disinfection of indigenous aerobic spores: Implication for UV reactor validation in unfiltered waters” International UV Association 2nd International Congress on UV Technologies. **First Place, Best Poster of Conference**
59. Linden, K.G. (2003) “UV light based treatment processes for emerging microbial and chemical contaminants”, EPA Science Forum 2003. May 5-7, 2003, Invited
60. Shin, G-A, Sobsey M.D., Linden, K.G. (2003) “Balancing chemical and microbial risks in drinking water treatment” EPA All investigators Meeting, Cincinnati, OH, Aug 5-7, 2003, Invited
61. Rosenfeldt E.J., and Linden, K.G. (2002) “Treatment of the endocrine disrupting compounds bisphenol A and ethinyl estradiol using direct UV photolysis and UV/H₂O₂ advanced oxidation process” 2002 NC AWWA/WEA Annual Conference, Winston Salem, NC, Nov. 18-20, 2002 – **Second Place Winner**
62. Rosenfeldt E.J., and Linden, K.G. (2002) “Treatment of the endocrine disrupting compounds bisphenol A and ethinyl estradiol using direct UV photolysis and UV/H₂O₂ advanced oxidation process” 2002 Endocrine Disruptors Symposium, AWWA, Cincinnati, Ohio, April 18-20,2002
63. Linden K.G., Jin, S., Mofidi, A. (2000) “Disinfection Efficiency and Dose Measurement for Polychromatic UV Systems” Research Division: *Annual Conference and Exhibition of the American Water Works Association*, Denver, CO, June 11 –15, 2000 – **Research Division: 3rd Place Winner**
64. Linden, K.G. Shin, G.A., and Sobsey, M.D. (2000) “Comparative effectiveness of UV wavelengths for the inactivation of *Cryptosporidium parvum* in water” *International Water Association First World Congress*, Paris France, July 5-8, 2000.
65. Linden, K.G. (2000) “Application of UV Disinfection for Water Treatment”, *Annual North Carolina Water Resources Research Conference*, N.C. State University - McKimmon Center Raleigh, North Carolina, March 30, 2000

Graduate Students Theses Directed or Co-Directed

1. Wilkerson, Shawn “Application of Morphologic Characterization to Urban Watersheds for Developing Stream Restoration Techniques”, MS Dec. 1998. Post Graduation: Engineer at City of Charlotte Storm Water Services, Charlotte, NC
2. Osborne, Michael “Performance and optimization of biotower for treatment of beverage industry wastewater”, MS Dec. 1998. Post Graduation: Engineer at WK Dickson and Associates in Charlotte, NC
3. Keaton, Jeffrey “Criteria and identification of reference reaches for urban stream restoration”, MS May 1999. Post Graduation: Process Engineer at CH2MHill in Charlotte, NC.
4. Soriano, Girlie “Investigation of disinfection by-product formation following low and medium pressure UV irradiation of wastewater” MS UC Davis, May 1998. Post Graduation: Engineering Consultant, Northern CA. (Co-directed)
5. Bonislowsky, Mary “Comparison of performance and operations and maintenance costs for three biological nutrient removal schemes at a full-scale wastewater treatment plant”, MS December 2000. Post Graduation: Process Engineer at Black & Veatch, Charlotte, NC
6. Christensen, Jason “Impacts of particles on dose delivery in UV disinfection systems”, MS March 2001. Post Graduation: Project Engineer at HDR in Austin, TX.
7. Jin, Shanshan “Practical considerations for actinometer based UV dosimetry: stability of uridine and iodide/iodate actinometers under experimental conditions”, MS 2002. Post Graduation, Consulting Engineer, Hazen and Sawyer, Alexandria, VA.
8. Jin, Shanshan “Fluence Measurement for Polychromatic UV Disinfection Systems: Bench Scale Modeling and Applications to Characterization of UV Reactors”, Ph.D. 2003. Post Graduation, Consulting Engineer, Hazen and Sawyer, Alexandria, VA.
9. Ishida, Gina “Sequential inactivation of microorganisms: UV and chlorine”, MS June 2001 - UNC. Post Graduation: Project Engineering at Carollo Engineers in Phoenix, AZ. (Co-Directed)
10. Batch, Lawrence “Water Quality Impacts on UV Disinfection of MS2 Virus in Filtered Water Supplies”, MS May 2002. Post Graduation: Naval Engineering, San Diego, CA
11. Khanna, Nitin “Ultraviolet Inactivation Kinetics and Time-Dose Reciprocity of *E. coli* and *S. typhimurium*.” MS December 2003. Post Graduation, MacConell and Associates, Morrisville, NC
12. Rosenfeldt, Erik “Destruction of endocrine disrupting compounds in water with direct UV and UV/H₂O₂ advanced oxidation” MS December 2003, Post Graduation, Assistant Professor, Department of Civil and Environmental Engineering, University of Massachusetts, Amherst, MA.
13. Shringapure, Nilesh “Predicting medium pressure UV fluence via biodosimetry using *Escherichia coli*, MS2 Bacteriophage and *Bacillus subtilis* spores” MS May 2004, Post Graduation, Black & Veatch Engineers

14. Eischeid, Anne “UV inactivation of E. coli measured by ESS assay” MS June 2004, Post Graduation, PhD Student, Duke University.
15. Mamane, Hadas, Ph.D. December 2004. “Factors affecting UV inactivation of pathogens in unfiltered waters” Environmental Engineering. Post Graduation: Tenured Prof., School of Engineering, Tel Aviv University, Israel.
16. Pereira, Vanessa, Ph.D. 2005. “UV and ozone degradation of pharmaceuticals in water” UNC (2005) (Co-Directed with H. Weinberg). Post Graduation: Research Associate, Portugal
17. Hannah Saunders, M.S. 2005. “UV disinfection of adenovirus in water” UNC (Co-directed with Mark Sobsey), Post Graduation: with NIEHS, Raleigh, NC
18. Chen, Pei-Jen, Ph.D. December 2005. Environmental Engineering – “Application of Bioanalytical techniques for evaluation of UV based treatment of EDCs in water”. Post Graduation: Assistant Professor, National University of Taiwan
19. Rosenfeldt, Erik, Ph.D. May 2007. Environmental Engineering – UV oxidation of emerging contaminants. Recipient of 2005 Abel Wolman Award, AWWA. Recipient of 2005-2007 NWRI Doctoral Fellowship. Post Graduation: Assistant Professor, Department of Civil and Environmental Engineering, University of Massachusetts, Amherst, MA.
20. Wu, Changlong, Ph.D. December 2008. Development of fundamental UV reaction parameters for CCL contaminants. Research Scientist, Syngenta
21. Bandy, Jeffrey, Ph.D. 2009. Integrating synergistic multiple barriers in Water Reuse treatment. Research Engineer at East Bay Municipal Utilities District, CA
22. Watts, Michael, Ph.D. May 2008. Oxidation and photodegradation of emerging contaminants in water. Post Graduation: Assistant Professor, Florida State University.
23. Eischeid, Anne, Ph.D. 2009. Molecular basis for viral resistance to UV disinfection. Post Graduation: Research Scientist at US FDA.
24. Christie Chatterley, M.S. (Colorado) –2009. UV LEDs for sustainable disinfection, PhD student, University of Colorado.
25. Olya Keen, Ph.D. (Colorado) –2012. Advanced oxidation of pharmaceuticals in wastewater. US EPA STAR Fellow. ACS Graduate Student Award in Environmental Chemistry. Assistant Professor at University of North Carolina at Charlotte.
26. CJ McClelland, Ph.D. (Colorado) – 2012. Decision Support for implementing water reuse in arid regions. Assistant Professor at Colorado School of Mines, Petroleum Engineering.
27. Christina Barstow, M.S., Dec 2010 (Colorado). UV in a can – developing on-demand household water treatment systems. PhD student, University of Colorado
28. Cole Sigmon, M.S. August 2011 (Colorado). Ozonation of wastewater for inactivation of viruses. Post Graduation: Engineer at Boulder Wastewater Treatment Plant, CO
29. Christie Chatterley, Ph.D. (Colorado) – May 2013. Evaluation of School based water sanitation and hygiene programs in Peru. Mortenson Research Fellow, Assistant Prof Fort Lewis, Engineering, Consultant for UNICEF

30. Sara Beck, Ph.D. (Colorado) – May, 2015. Development of novel on-demand household water treatment for developing communities. EPA STAR Fellow, AWWA Pirnie Fellowship, Civil Engineering Dean's Outstanding Graduate Research Assistantship, Mortenson Center Dean's Outstanding Merit Fellowship, AEESP Best Dissertation, Fulbright.
31. Austa Parker, Ph.D. (Colorado) – May 2015. Oxidation processes and subsequent toxicity for EPA CCL3 contaminants. NSF Graduate Research Fellow.
32. Traci Brooks, M.S. student (Colorado) – 2011. UV photolysis for production of ultrapure water – impact of nitrate.
33. Sarah Bounty, M.S. (Colorado) –2012. DNA and protein damage of adenoviruses from UV disinfection in water. Engineer at CH2M Hill in Boston.
34. Stephanie Kover, M.S. (Colorado) –2013. Co-advised with Rosario. Degradation of dispersants used in oil spills via sunlight. Berkeley Law School
35. Sonya Milonova, M.S. (Colorado) –2013. Optimization of household UV system for point of use. Harvard Public Health.
36. Christopher Poepping, M.S. (Colorado) –2013. Impact of time and light exposure on UV disinfection of pathogens. Arcadis Engineers
37. Kate Dowdell, M.S. (Colorado) – 2012. Co-advised with Summers. Biofiltration following advanced oxidation – impact on contaminant toxicity. Engineer at Arcadis in California.
38. Lia Brune, M.S. (Colorado) –2013. Appropriate water treatment processes for remote developing communities. Mortenson Research Fellow. Engineer at CDM-Smth
39. Simon Mostafa, Ph.D. (Colorado) – 2015. Co-advised with Rosario. Sunlight driven processes for inactivation of pathogens in wastewater. EPA STAR Fellow.
40. Robyn Hallowell, M.S. (Colorado) – Dec 2014. Fate and toxicity of dispersants used in oil spills
41. Emily Spangler, M.S. (Colorado) –Dec 2014.
42. Kurban Sitterley, M.S. Student (Colorado) – Dec 2015. Electrocoagulation technologies for flowback water from unconventional gas exploration. PhD student, University of Colorado
43. Jeanette Neethling, M.S. (Colorado) –December 2015. Characteristics of fecal derived biochar
44. Choolwe Mandona, M.S. (Colorado) – December 2015. Advanced Oxidation of VOCs in ground water
45. Amanda Connell, M.S. (Colorado) –December 2015. Toxicity testing assays for water quality assessment.
46. Elizabeth Travis, M.S. (Colorado) –December 2014. Odor control for the SolChar toilet.
47. Christie Ritter, M.S. (Colorado) –May 2015. Stove and ater filter preferences among rural Guatemalans.

48. Christina Barstow, Ph.D. (Colorado) – December 2015. Monitoring strategies for assessing engineering interventions for water treatment in developing communities. Two time Boren Fellow for study in Rwanda. Beverly Sears Award 2011.
49. Liesbet Oalerts, MS (Colorado) – May 2018. Sustainable WASH – rural water preventative maintenance models
50. Kurban Sitterley, Ph.D. (Colorado) – Dec 2018. Innovative treatment technologies for flowback water from unconventional gas exploration.
51. Natalie Hull, Ph.D. (Colorado) – August 2018. UVLED disinfection for small systems. Professor at The Ohio State University
52. Kari Sholtes, Ph.D. (Colorado) – May 2018. UVLED disinfection for point of use applications in aerospace
53. Sesha Pochiraju, M.S. (Colorado) – May 2018, Toxicity testing driven analytical chemistry for UV AOP processes
54. Sydney Ulliman, PhD (Colorado) – December 2019. Advanced Treatment and Monitoring of Wastewater for Improved Water Reuse
55. Kaitlyn Jeanis, M.S. (Colorado) May 2020. Ozonation and Ceramic membranes for water reuse
56. Joanna Murphy, MS (Colorado) – May 2019. Ozonation and Ceramic membranes for water reuse
57. Evan Owen, MS (Colorado) – Aug 2018. Pilot evaluation of ceramic membranes at PWNT Netherlands
58. Kaitlin Mattos, Current Ph.D. Student (Colorado) – Exp August 2021. Sanitation systems in rural Alaska
59. Caleb Cord, Current PhD Student (Colorado) – Exp Dec 2021. Sustainable WASH Systems – Enabling environment surrounding sustainable WASH infrastructure
60. Pranav Chintalapati, Current Ph.D. Student (Colorado) – Exp Dec 2021, Sustainable WASH Systems – Systems dynamics approaches toward understanding rural maintenance approaches
61. Kimberly Pugel, PhD student in Civil Systems, Co-Advise with Amy Javernick-Will, (Colorado) Exp Dec 2021. Sustainable WASH Systems – Collective Action approaches toward sustainable WASH infrastructure
62. Nicholas Valcourt, PhD student in Civil Systems, Co-Advise with Amy Javernick-Will, (Colorado) Dec 2019. Modeling systems surrounding sustainable WASH infrastructure
63. Tara Randall, Current M.S. Student (Colorado) – Dec 2020. Impact of UV LED disinfection on fouling of drip irrigation in water reuse
64. Caleb Larison, Current M.S. student (Colorado) – Exp Dec 2021, Roadmapping water reuse in oil and gas and mining operations.
65. Bryan Liu, Current Ph.D. Student (Colorado) – Exp Dec 2023. Advanced oxidation and the impact of nitrate on performance

66. Corey Trujillo, Current Ph.D. Student (Colorado) – Exp Dec 2022. Solar thermal remediation of oil and gas contaminated soils
67. Emma Wells, Current Ph.D. Student (Colorado) – Exp Dec 2025. UV applications and water quality in rural water systems toward meeting the SDGs.
68. Emma Payne, Current Ph.D. Student (Colorado) - Exp Dec 2026. Advanced oxidation for contaminant treatment in rural water supplies.

Undergraduate Researchers Directed

1. Eliza Fink, Systems approaches in WASH, 2019-2020
2. Jasmine Gamboa, UV LED applications in oil and gas operations, 2019-2020
3. Will Herold, UV LED disinfection of water, 2017-2018
4. Jacqueline Kingdom, Advanced oxidation treatment of water, 2017-2018
5. Ryan Keliher, Modeling UV-LED based disinfection systems, 2017-2019
6. Dustin Levine, Microtoxicity assays in water – treatment evaluations 2015-2017
7. Anisha Lamsal, DLA in engineering, disinfection using UV LED lights. 2015-2016
8. Armand Ngassam, UV disinfection – application of molecular biology tools, 2015
9. Adrian Saenz, Iron based advanced oxidation processes, 2015
10. Yarrow Linden, Evaluation of urine disinfection with MS2 surrogates. 2015-2016
11. Ben Greiner, Undergraduate Research Assistant, Discovery Learning Apprentice, “Characterizing fuel content of fecal-derived char briquettes” (2014 – 2015)
12. Bridger Ruyle, Undergraduate Research Assistant, Treatment technologies for flowback water from hydraulic fracturing, literature review, (2014-2015)
13. Sandra Garcia-Fine, NSF REU Fellow, “Characterizing fuel content of fecal-derived char briquettes” from Worcester Polytechnic Institute (Summer 2014)
14. Garrett Sprouse, Undergraduate Research Assistant, SolChar toilet mechanical engineering aspects. (2013-2014)
15. Kate Stetina, Undergraduate Research Assistant, Discovery Learning Apprentice, “Disinfection of urine under conditions found in the Sol-Char toilet” (2013-2014)
16. Ian Morrissey, Undergraduate Research Assistant, “Biological treatment of impaired waters from wastewater and fracking” (2013-2017)
17. Alyssa Rodriguez, NSF REU Fellow, “Disinfection of urine under conditions found in the Sol-Char toilet” from University of Notre Dame (Summer 2013)
18. Michael Hawkins, SMART (Summer Multicultural Access to Research Training) Student, “MS2 Inactivation and Nucleic Acid Damage to Wavelength Specific Ultraviolet Irradiation” from Georgia State University, (Summer 2013)
19. Emily Spangler, Undergraduate Research Assistant, “Toxicity assays for assessing oxidation of chemical contaminants” (2011-2012)
20. Genevieve Schutzius, Undergraduate Research Assistant, “Bioassays for assessing decay of emerging contaminants post AOP” (2012)

21. Andrea Berlinghof, NSF REU Fellow, “UV advanced oxidation of recalcitrant contaminants” from Johns Hopkins (Summer 2012)
22. Kaitlyn Jeanis, SMART (Summer Multicultural Access to Research Training) Student, “A Study of MS2 Inactivation and Nucleic Acid Damage to Wavelength Specific Ultraviolet Irradiation” from University of Central Florida, (Summer 2012)
23. Louis Dankovich, Discovery Learning Apprentice (DLA), “Assessment of exposure wavelengths for sunlight UV experiments” (2011-2012)
24. Connie Chan, SMART Summer student, “UV disinfection and photoreaction of phage”, from Columbia University (Summer 2011)
25. Christian McGuire, NSF REU Fellow, “UV disinfection and photoreaction of phage”, from University of Oklahoma (Summer 2011)
26. Erinn Kunick, NSF REU Fellow, “Solar powered UV disinfection for household water treatment” from University of Wisconsin-Madison (Summer 2010)
27. Chayla Rowley, Undergraduate Research Opportunity (UROP) fellow (2009), Discovery Learning Apprentice (DLA) (2010), University of Colorado- Boulder
28. Charlie McIntosh, Undergraduate Research Assistant, Chemical Engineering, University of Colorado- Boulder (2010)
29. Caitlin Rodriguez, Undergraduate Research Assistant, Environmental Engineering, University of Colorado- Boulder (2009-2010)
30. Bibek Joshi, Pratt Research Fellow “Appropriate technology disinfection for Nepal” (2006-2007). Post Graduation: Graduate Student, Stanford University
31. Kirsten Studer, NSF REU Fellow “Evaluation of estrogenic contaminant destruction via in vitro screening assay” (Summer 2005). Post Graduation: Graduate Student at UMass 2006-2009.
32. Chris Einmo – Pratt Research Fellow “UV based treatment for removal of arsenic” (2004-2005). High School Teacher.
33. Debbie Seibold – Pratt Research Fellow “UV based treatment for emerging chemical contaminants” (2001-2003) Post Graduation: in Grad School at Stanford 2005-2007.
34. Lisa Rauenzahn – UG research assistant “Investigation of emerging water contaminants” (2000-2002) Post Graduation: working as Engineering consultant.
35. Mollie Page – UG research assistant “Impact of pH and alkalinity on photolysis of nitrate in water” (2001) Post Graduation: working at Research Triangle Institute
36. Jennifer Buckman – NSF REU, Deaf Student for Summer 2001 “Impact of water quality on Nitrate photolysis” from Galludet University
37. Travis Bastow– NSF REU, Deaf Student for Summer 2000 “UV Photolysis of Nitrate in Water” from Galludet University

High School Students Directed

1. Yarrow Linden – Boulder High School “Water holding capacity of biochar derived from fecal stocks” and “Thermal and ammonia driven disinfection of MS2 phage in urine” (2013-2014)
2. Ian Morrissey – Boulder High School “Biological treatment of impaired waters from wastewater and fracking” (2012-13)

3. Luke Martin – Broomfield High School “Molecular indications of virus damage from UV irradiation” (2010-11).
4. Naomi Levine – Shining Mountain Waldorf School “Quenching H₂O₂ with GAC following a UV-AOP” (2009-10). Post Graduation: at Cornell University
5. Jeff Hu – NC School of Science and Mathematics “Effect of antioxidants on inactivation of bacteria” (2004-2005). Post Graduation: at Duke University
6. Ying Liu – NC School of Science and Mathematics “Effect of antioxidants on inactivation of bacteria” (2004-2005)
7. Tamarin Riboli – Chapel Hill HS “Utilization of Medaka as biomarker for endocrine disrupter activity following UV treatment” (2002)

Post-Doctoral Researchers Directed

1. Charles Maxwell Sharpless, Ph.D. 2000 “Investigations of contaminant degradation utilizing UV based treatment processes” (2001-2004) Post Graduation, Associate Professor, Environmental Chemistry, Mary Washington College, Fredricksburg, VA.
2. Banu Ormeci, Ph.D. 2000 “Investigations of particle impacts on inactivation of pathogens in water and wastewater” (2001-2003) Post Graduation, Associate Professor and Canada Research Chair, Environmental Engineering, Carleton University, Ottawa, ON Canada.
3. Zuzana Bohrer, Ph.D. 2001 “Molecular investigations as a basis for evaluation of UV disinfection efficiency” (2003-2007) Post Graduation: Lecturer and Associate Director of the Ohio Water Resources Center at Ohio State University.
4. Hilla Shemer, Ph.D. 2004 “Investigations of contaminant degradation utilizing UV based treatment processes” (2004-2006). Post Graduation: Research Professor, Technion, Haifa Israel.
5. Ki Don Cho, Ph.D. 2006 “Toxicity evaluations for estrogens in wastewater” (2006-2008). Post Graduation: Environmental Engineer, District Department of the Environment in Washington, DC
6. Peter Ruiz-Haas, Ph.D. 2006 “Chemical analysis of emerging contaminants in water following advanced treatment” (2006-2008). Post Graduation: Assistant Professor, Mary Baldwin College, VA.
7. Aaron Dotson, Ph.D. 2008 “UV induced disinfection byproducts” (2008-2010). Post Graduation: Assistant Professor in Environmental Engineering at University of Alaska, Anchorage.
8. Alina Handorean, Ph.D. 2009 “Bioassays for determining toxicity of oxidation products from UV and ozone processes” (2009-10). Post Graduation: a post-doc for Professor Hernandez.
9. Megan Howard, Ph.D. 2007 “Molecular method development to better understanding the fundamentals of virus disinfection by UV light” (2010) Post Graduation: Lecturer at Cal Poly San Luis Obispo, CA.
10. Imma Ferrer, Ph.D. 2007 “Advanced Analytical Chemistry via LC Time of Flight Mass Spectrometry” (2009 – 2012)

11. Roberto Rodriguez, Ph.D. 2007 “Fundamentals of virus inactivation by UV Light: Adenoviruses” (2010 – 2012). Post Graduation: Asst. Professor at University of Texas El Paso.
12. Yaal Lester, Ph.D. 2012 “Advanced Oxidation Demonstration for Emerging Contaminant Removal in Wastewater” (2012-2015). Post Graduation: Asst. Professor at Azrieli College of Engineering, Jerusalem Israel
13. Tesfa Yacob, Ph.D. 2012 “Odor control during pyrolysis of fecal sludge in the Sol-Char toilet” (2012-2016). Post Graduation: Asst. Professor at Messiah College of Engineering, PA, USA
14. James Rosenblum, Ph.D. 2013 “Advanced treatment technologies for waters used in hydrologic fracturing” (2014 – 2018). Post Graduation: Asst. Research Professor at Colorado School of Mines, CO, USA
15. Jatuwat Sangsanont, Ph.D. 2016 “Mechanisms of protein damage in viruses by UV irradiation” (2016 - 2018). Post Graduation: Asst. Professor at Thailand
16. Ben Ma, Ph.D. 2019-2021 “Innovative applications of Far UVC for virus control in water, air and surfaces”
17. Saba Seyedi, Ph.D. 2021-2022 “Innovative applications of UV LEDs for in-pipe disinfection
18. Matthew Bentley, Ph.D. 2020 “Roadmapping water reuse in oil and gas and mining operations”

Theses Committees Served On (Partial list, other than for my own students)

1. Jousset, Stephane, MS Degree: *Contributions from Autotrophic Nitrification and Respiratory Denitrification to Nitric Oxide Emissions from Soil*, May 1999
2. Baker, Rebecca, MS Degree: *Effects of Water-Filled Pore Space on Nitric Oxide Emissions from Soil*, May 2000
3. Tabachow, Ross, MS Degree: *Nitric Oxide Emissions from Unamended, Biosolids Amended and Mineral Fertilizer Amended Agricultural Soil*, May 2000
4. Ramon, Desiree, Ph.D. Degree: *Estimating Modeling Nitric Oxide Emissions from the Soil to the Lower Levels of the Troposphere*, May 2000
5. Dingding An, MS Degree: *Identification of polyphosphate-accumulating organisms candidates in an enhanced biological phosphorus removal (EBPR) system by density separation and molecular methods*, May 2001
6. Ross Tabachow, Ph.D. Degree: *Nitric oxide emissions as an indicator of bioremediation*, May 2002
7. Baneeta Sabherwal, MS Degree, *Effects of Salt and Phosphorus Release/Uptake on biomass density and biomass settling rates in Full Scale Activated Sludge*, Dec. 2002
8. Xuyi Cai, MS Degree, *Role of Sea Salt Aerosol Organic Layers in The Formation of Secondary Organic Aerosol in Coastal Areas*, May 2002

9. Kat Stauffenberg, *Natural sunlight decay of pharmaceuticals in water*. UNC Graduate Student, MS, 2006 (Howard Weinberg)
10. Bonnie Lyon, University of North Carolina Ph.D. Student (Howard Weinberg)
11. Kari Leech, University of North Carolina MS Student (Mark Sobsey)
12. Kaelin Cawley, Ph.D. Student (Diane McKnight)
13. Bailey Simone, M.S. (Diane McKnight)
14. Kate Beggs, Ph.D. Student (Scott Summers)
15. Chris Corwin, Ph.D. Student (Scott Summers)
16. Sarah Gonzales, M.S. Student (Fernando Rosario)
17. Mei Mei Dong, Ph.D. Student (Fernando Rosario)
18. David Sparkman, Ph.D. Student (Scott Summers)
19. Caitlin Glover, Ph.D. Student (Fernando Rosario)
20. Josh Kearns, Ph.D. Student (Scott Summers)
21. Varun Ghandi, Georgia Tech, Ph.D. (Jaehong Kim)
22. David Kempisty, PhD Student University of Colorado (Scott Summers)
23. Alex Mass, PhD. Student University of Colorado (Diane McKnight)
24. Elizabeth Schilling, MS Student University of Colorado (Sherri Cook)
25. Eli Townsend, MS Student University of Colorado (Scott Summers)
26. Julie Korak, PhD Student University of Colorado (Fernando Rosario)
27. Leigh Gilmore, PhD Student University of Colorado (Scott Summers)

Research Associates Supervised

1. Cori Oversby, M.S., Research Associate, Environmental Engineering. SolChar Toilet
2. Ryan Mahoney, M.S., Research Associate, Environmental Engineering. SolChar Toilet
3. Lauren Hafford, B.S., Research Associate, Environmental Engineering. SolChar Toilet
4. Jonas Waterman, B.S., Research Associate, Environmental Engineering. SolChar Toilet
5. Erin Printy, M.S., Research Associate, Environmental Engineering. SolChar Toilet
6. Dan Hollander, M.S., Research Associate, Environmental Engineering. USAID WASH

Visiting Researchers Hosted

1. Oguma, Kumiko, Ph.D., Research Associate, Environmental Engineering Group, Department of Urban Engineering, University of Tokyo. June-August 2005

2. Li Dong, Ph.D., Associate Professor, Resources & Environmental Science School, Chongqing University, Chongqing, China. July 2005 – June 2006.
3. Galina Matafonova, Ph.D. Fulbright Scholar, Lake Baikal, Russian Academy of Sciences August – November 2010.
4. Chao Yang, Ph.D. Candidate, Tshinghua University, Beijing China, January – July 2017.
5. Lavern Nyamutswa, Ph.D. candidate, Victoria University, Fall 2019.

Academic Service

University of Colorado at Boulder

[Need to update for 2019-2020]

Co-Director, Mortenson Center in Engineering for Developing Communities, Direct Research and Graduate Studies. University of Colorado Boulder, 2015 - 2018

Provosts Advisory Committee, 2015 – 2016.

Vice Chancellor's Advisory Committee, University of Colorado Boulder, 2012- 2015.

Executive Committee, Mortenson Center in Engineering for Developing Communities, University of Colorado – Boulder, 2010 - present.

Executive Committee, Department of Civil, Environmental, and Architectural Engineering, University of Colorado – Boulder, 2010 - 2015.

Executive Committee, SEEC Building, for Environmental Engineering, 2012-2015

First Level Review Committee, Chair: College of Engineering and Applied Science, Aug 2010 – 2012

First Level Review Committee, Vice Chair: College of Engineering and Applied Science, Aug 2008 – 2010

Leader, Environmental Sustainability Initiative, CEAS, 2010 – Present

Being the Bridge, faculty liaison for Associate Director of Development Nick Lobejko

Faculty Coordinator, 2010 Rocky Mountain AWWA/WEF Student Conference, University of Colorado Boulder May 18, 2010.

Coordinator, Environmental Engineering group, CEAE 2011-2013.

Department Research Committee: CU Boulder CEAE, 2008 – Present

Department Facilities Committee: CU Boulder CEAE, 2009 – Present

Department Personnel Committee: CU Boulder CEAE, 2009 – Present

Research Award Committee, College of Engineering and Applied Science, 2013-2015

Duke University

The Randolph K. Repass and Sally-Christine Rodgers University Professorship in Marine Conservation and Technology Search Committee (Pratt and NSOEES) 2004-2006

Hudson Hall Renovations Committee: Chair of the subcommittee on Basement of Hudson / Environmental Engineering, 2004-2006

Faculty Search Committee Member, Civil and Environmental Engineering, 2002-2007

Departmental Review Committee, Civil and Environmental Engineering, 2002-2006

Committee on Engineering Advisory Universal Resources (COEUR), Pratt School of Engineering, 2002-2007

Space Allocation Committee, Civil and Environmental Engineering, 2001-2005

Graduate Admissions Advisory Committee, Civil and Environmental Engineering, 2001-2002

Pratt CIEMAS Building Committee, Pratt School of Engin., New Building Design, 2000-2002

Chair Search Committee Member, Civil and Environmental Engineering, 2000-01

Infrastructure Committee, Pratt School of Engineering Strategic Planning Group, 2000-2001

UNC-Charlotte

Duke Energy Endowed Professorship Search Committee, College of Engineering, 1998-99

College of Engineering, Laboratory Equipment Committee, 1997-99

Department of Civil Engineering Computer Committee, 1997-99

Department of Civil Engineering Advisory Committee, 1997-99

Environmental Science and Engineering Interdisciplinary Program Committee, 1997-99

Member, Environmental Academy 1997-99

Professional Service

Committees, Panels and Editorships

Board of Directors, Association of Environmental Engineering and Science Professors (AEESP) 2016 – 2020, President 2019-2020.

World Health Organization (WHO) Water Quality Technical Advisory Group member 2015-present

World Health Organization (WHO) Co-author for revisions of the Guidelines for Drinking Water Quality and lead for updating of the log reduction values. 2015 - present

Editorial Advisory Board, ES&T-Engineering, ACS Publications 2019-present

Trustee, Vice Chair (2014-2016), Water Science and Research Division, American Water Works Association 2011-2017

Associate Editor, Journal of the American Water Works Association, 2012- 2018

Associate Editor, ASCE: Journal of Environmental Engineering, 2005 - 2015

Journal AWWA Best Paper Award selection committee, 2011-2016

Scientific Advisor, Canadian Water Network project: Development of a Water Safety Framework for Watershed and Water Demand Governance and Management Approaches Related to Hydraulic Fracturing, Dalhousie University. August – December 2014.

Scientific Advisory Committee, University of British Columbia, RES'EAU-WaterNET, 2009-2017

Lecturer Selection Committee, AWWA Liaison Chair, Association of Environmental Engineering and Science Professors (AEESP), Member, 2010-2017, Chair 2012-14.

Chair, Lecturers Committee, Association of Environmental Engineering and Science Professors (AEESP), 2014-2016. Co-Chair 2012-2014.

Chair, Dissertation Award Committee, Association of Environmental Engineering and Science Professors (AEESP) 2013-14, Member 2011-2014.

Member, University Student Activities Committee, AWWA, 2004-2011

Founding Member/Board Member, International Ultraviolet Association, April 1999 – present

International Vice President, International Ultraviolet Association, June 2001 – 2009

Executive Operating Committee, International Ultraviolet Association, 2011 – present

President Elect, International Ultraviolet Association, 2011-2012

President, International Ultraviolet Association, 2013-2016

Editorial Board, UV News, International Ultraviolet Association, 1999 - 2018.

Chair, Green UV Initiatives Committee, International Ultraviolet Association, 2010 - 2014

Chair, Committee on UV Practice, IUVA, 2001- 2005

Chair, Awards Committee, IUVA, 2001 – 2003; 2008- 2013

Chair, Disinfection subcommittee, Far UVC Task Force, IUVA 2020-present

Member, Student Activities Committee, IUVA, 2001 – 2006

External Site Reviewer, Canadian NSERC Industrial Research Chair Selection, 2010, 2016

Site Visit Review Committee. Program in Civil and Environmental Engineering, Louisiana State University (LSU), April 18-20, 2010

Technical Advisor, New York City Department of Environmental Protection, UV Disinfection for NYC Drinking Water Supply, October, 2001 – 2006, 2010-2012

Orange County Water District Technical Review Committee for Groundwater Replenishment System, 2001 – 2004

Technical Advisor for Disinfection Research Group, New Zealand, Auckland Regional Council, Project Manukau Wastewater UV Disinfection 2002 - 2004

National Drinking Water Advisory Council (NDWAC), Research Working Group member, US EPA, November 2000 – 2004 (advises EPA on research priorities in drinking water)

- Futures Research Needs Subgroup, NDWAC, US EPA, 2000 - 2004
- Contaminant Mixtures Research Needs Subgroup, NDWAC, US EPA, 2000 - 2004

International Union of Pure and Applied Chemists (IUPAC) Photochemistry sub-group on UV Disinfection, 1999 – 2002

Special Consultant to the Federal Advisory Committee Act (FACA) in development of the National Regulatory Guidelines Stage 2 Disinfectants/Disinfection Byproducts Rule - US EPA, 1999-2001

US EPA UV Disinfection Technical Working Group Advisory Committee, 1999 – 2002

Steering Committee, National Center for Food Safety and Technology, Validation of Processing Technologies for Juice Conference, February 2003.

NC WEA/AWWA – Student Activities Committee Representative, 1997-2006

Statewide Coordinator, NC Water Resources/Environmental Engineering Teleconference Series, 1997 – 1999

National Institute on Drug Abuse Special Emphasis Panel, Proposal Reviewer, National Institute On Drug Abuse, January 30, 2013

Conferences/Workshops

Co-Chair, UV Research Symposium at Pacifichem, Honolulu Hawaii, December 2015

Co-Organizer, UV Research Frontiers Conference, IUVA, Netherlands, May 2015

Co-Organizer, Symposium on Water Treatment in Hydraulic Fracturing, ACS Annual Meeting, Denver, CO March 2015.

Moderator, AOPs in Water Treatment, Water Quality Technology Conference, AWWA, New Orleans, LA Nov 16-20, 2014.

- Co-Organizer, UV in Developing Communities Symposium, UNESCO-IHE, Delft, Netherlands, November 2014.
- Planning Committee, Water Quality Technology Conference (WQTC) AWWA, 2013 (Long Beach); 2014 (New Orleans); 2015 (Salt Lake City)
- Workshop Organizer, US-Canadian Water and Hydraulic Fracturing - Knowledge Exchange Workshop, Boulder, CO August 19-20, 2014.
- Workshop Coordinator, Medium Pressure UV Guidance for Low Wavelength Issues, Water Research Foundation 4376. White Plains, NY January 15-17, 2014.
- Lead Organizer, Symposium in Honor of James R. Bolton, IUVA World Congress, Las Vegas, NV, September 22-26, 2013
- Workshop Coordinator, Medium Pressure UV Guidance for Low Wavelength Issues, Water Research Foundation 4376. Los Angeles, CA July 23, 2013.
- Co-Organizer, moderator, "WASH in the Curriculum", Association of Environmental Engineering and Science Professors (AEESP) Bi-annual meeting, Environmental Engineers and Scientists of 2050: Education, Research, and Practice. Golden, CO July 14-16 2013
- Moderator, Panel Discussion on Bridging Graduate Education and Research in WASH, Association of Environmental Engineering and Science Professors (AEESP) Bi-annual meeting, Environmental Engineers and Scientists of 2050: Education, Research, and Practice. Golden, CO July 14-16 2013.
- Co-Chair (with Urs von Gunten): Session 8: Advanced Oxidation – New Technologies And Applications. 10th IWA Leading-Edge Conference on Water and Wastewater Technologies, International Water Association, Bordeaux, France
- International Scientific Committee, IUVA World Congress 2013, Las Vegas, NV. Sept 22-26, 2013
- International Scientific Committee, Leading Edge Technologies 2013, International Water Association, Bordeaux, France, June 4-5, 2013
- Symposium Organizer, "Water Sustainability in Oil and Gas Exploration: Treatment Issues" 249th ACS National Meeting in Denver, CO 3/22/15 – 3/26/15
- Symposium Organizer, "Environmental Fate of Dispersants used in Oil Spills" 243rd ACS National Meeting in San Diego, CA 3/24/12 – 3/29/12
- Symposium Organizer, "Chemistry of Hydroxyl Radicals in Natural and Engineered Aqueous Systems" 242nd ACS National Meeting in Denver, Colorado, 8/28/11 – 9/1/11
- International Scientific Committee, MICROPOL 2011, International Water Association, Sydney Australia
- International Scientific Committee, REUSE 2011, International Water Association, Barcelona Spain

Technical Committee Co-Chair, International Ultraviolet Association & International Ozone Association Joint North American Conference, May 3-6, 2009 Boston, MA

US EPA Water Reuse Research Needs Workshop, UNC-Chapel Hill Feb 3-4, 2010

WaterReuse Foundation Research Needs Workshop, San Diego, CA Dec 1-3, 2009

Coordinator, Water Reuse in 2030 International Workshop, Brisbane, Australia Sept. 24-25, 2009.

Coordinator, Water Reuse in 2030 North American Workshop, Denver, CO, June 11-12, 2009.

Chair, Best student paper award, AWWA Water Quality Technology Conference. Savannah, GA. Nov 17, 2010

Chair, Best student paper award, AWWA Water Quality Technology Conference. Seattle WA. Nov 18, 2009

Chair, Best student paper award, AWWA Water Quality Technology Conference. Cincinnati, OH. Nov 19, 2008

Technical Committee Chair, IUVA First World Congress, June, 2001

Technical Committee Co-Chair, IUVA First Asian Regional Congress, October, 2002

Technical Committee member, IUVA UV Karlsruhe, European Conference on UV Radiation: Effects and Technologies, September, 2004

Moderator, Panel on “from Ideas to Impact” RESEAU Network Annual Meeting, Toronto ON Canada, November 3, 2012.

Moderator, Session 4: UV Reactor Design and Validation, International UV Association World Congress and Exhibition, Paris, France, May 22-25, 2011

Moderator, Session 5: UV Validation and Monitoring II, International UV Association North American Regional Congress, Toronto Canada, September 19-21, 2011

Moderator Session 9: Oxidation and Other Disinfection Alternatives, 3/2, 2009. Water Environment Foundation, Disinfection 2009: Addressing the Full Spectrum of Global Disinfection Challenges 2/28-3/3, 2009, Atlanta, Georgia

Moderator Session 12: Water Reuse, 3/2, 2009. Water Environment Foundation, Disinfection 2009: Addressing the Full Spectrum of Global Disinfection Challenges 2/28-3/3, 2009, Atlanta, Georgia

Moderator, UV and Advanced Oxidation Session, AWWA WQTC, Cincinnati, OH, November 2008

Moderator, Universities Forum, AWWA Annual Conference and Exhibition, Atlanta, GA June 2008

Co-Chair, Advanced Oxidation Session, Leading Edge Technologies Conference, IWA, Zurich, Switzerland June 1-4, 2008

Special Topics Session Organizer, Emerging Contaminants, International UV Association World Congress, Los Angeles, CA August 2007

Special Topics Session Organizer, Adenoviruses and UV Disinfection, International UV Association World Congress, Los Angeles, CA August 2007

Moderator, UV Validation and Operational Flexibility Session, AWWA WQTC, Charlotte, NC, November, 2007

WaterReuse Foundation Research Needs Workshop, San Diego, CA Nov 28-30, 2006

Co-Chair, First Mid-East Conference on UV Technologies, Tel Aviv Israel, Nov 2005.

US EPA, American Water Works Association Research Foundation (AwwaRF) Drinking Water Research Needs Expert Workshop, September 1999.

Water Environment Federation, Disinfection Practices CD-ROM: UV disinfection section, Oct 2000 – April 2002

Coordinator, UV Disinfection Workshop, American Water Works Association Annual Conference, Nashville, TN, November 2001.

Outreach

Water Treatment Research for Hydraulic Fracturing Wastewater - Laboratory Tour Host to Oil and Gas Companies: Hosted tours and discussions with Noble Energy, Bayswater, Pioneer and Anadarko. Fall 2014 – Spring 2015.

Back to Boulder 2013: CU Engineering Lab Sampler. Environmental Engineering Lab tours. Oct. 25, 2013

Girls Explore Engineering day. Demonstration on dispersants and how they were used in the Deepwater Horizon Oil Spill. Nov 1, 2013.

Expanding Horizons Workshop. Hands-on demonstration on the use of dispersants for oil remediation as an effort to engage middle school girls in math and science. Feb 25, 2012

Explore Engineering Day for Women, Environmental Engineering Laboratory Tour Leader, College of Engineering and Applied Science, University of Colorado-Boulder, Nov. 12, 2010.

High School Honors Institute, Water treatment activity, College of Engineering and Applied Science, University of Colorado-Boulder July 2010

Faculty Advisor, Engineers Without Borders Rwanda Team, University of Colorado-Boulder 2008-Present.

Faculty Advisor, Engineers Without Borders overall student group, University of Colorado-Boulder 2013-Present.

Reviewer of Promotion, Grants, Journals

[Need to update]

Review of Tenure/Promotion Case for Portland State University, 2015

Review of Tenure/Promotion Case for University of Washington, 2015

Review of Tenure/Promotion Case for University of Central Florida, 2015
Review of Tenure/Promotion Case for Ecole Polytechnique, Quebec, 2015
Review of Tenure/Promotion Case for Imperial College London, 2015
Review of Tenure/Promotion Case for Tel Aviv University, 2014
Review of Tenure/Promotion Case for University of Cincinnati, 2014
Review of Tenure/Promotion Case for University of Washington, 2014
Review of Tenure/Promotion Case for Southern Methodist University, 2014
Review of Tenure/Promotion Case for Stanford University, 2013
Review of Tenure/Promotion Case for EPFL Lausanne, Switzerland, 2013
Review of Tenure/Promotion Case for University of Florida, 2013
Review of Tenure/Promotion Case for University of Missouri, 2013
Review of Tenure/Promotion Case for University of Wyoming, 2013
Review of Tenure/Promotion Case for University of California, Davis, 2011
Review of Tenure/Promotion Case for Seattle University, 2011
Review of Tenure/Promotion Case for Imperial College, London, 2011
Review of Tenure/Promotion Case for Florida International University, 2008
Review of Tenure/Promotion Case for National Technological University of Singapore, 2007
US EPA UV Disinfection Guidance Manual, Co-Author, US EPA, Jan. 2001 – 2006
McGraw Hill Encyclopedia: Author for water treatment and water supply revisions, 2005
Environmental Protection Agency Grants Review Panel, SBIR, July 2002
University of Colorado Seed Grant Review Panel, 2011
National Science Foundation Grants Review Committee, Division of Bioenvironmental Engineering, March 2001
External Review of MS thesis for Civil Engineering Department at McGill University, 2001
External Review of PhD Thesis for Civil Engineering Department at RMIT University, Melbourne, Australia 2002-03; 2005
External Review of PhD Thesis for Civil Engineering Department at University of Toronto, Canada, 2005
External Review of PhD Thesis for Civil Engineering Department at University of Alberta, Canada, 2006
Project Advisory Committee, AWWARF Proj # 3176, “Evaluation of Computational Fluid Dynamics (CFD) for Modeling UV-Initiated Advanced Oxidation Processes”, Ducoste, PI, 2005-2007
Project Advisory Committee, AWWARF Proj # 2721, “Susceptibility of multiple strains of *Cryptosporidium* oocysts to UV light”, Clancy, PI., 2000-2002

Project Advisory Committee AWWARF Proj # 2817, “Development of a Particle Actinometer”, Anderson, PI., 2001-2004

Reviewer: Canadian New Opportunities Fund for Investigators, 2001

Reviewer: University of Illinois Water Research Center Grants Program, 2001

Reviewer: NC Water Resources Research Institute (WRRI) Grants, 2003

Reviewer: NSERC (Canadian National Science and Engineering Research Council) Discovery Grants Program, 2000, 2001, 2003, 2004, 2009, 2010

Reviewer: NSERC (Canadian National Science and Engineering Research Council) Malcolm Stacey Fellowship Grants Program, 2009

Reviewer: Science Centers program, U.S. Civilian Research and Development Foundation (CRDF) Grants, 2002

Reviewer: Collaboration in Basic Science and Engineering (COBASE) National Academies, Grants, 2002.

Reviewer: United States - Israel Binational Agricultural Research & Development Fund, 2007

Reviewer: Cottrell College Science Award proposal - Research Corporation, 2006, 2007

Reviewer: United States Civilian Research & Development Foundation, 2007

Reviewer: Canadian Water Network Expert Panel proposal review, 2007

Reviewer: Government of Israel, German-Israeli Proposal Reviewer, 2007

Reviewer: US EPA Grants Peer Review Panel, Washington DC, April 13-15

Reviewer: McGraw Hill Higher Education Texts: new graduate environmental engineering textbook, 2002

Manuscript Reviewer – *Wat. Environ. Res.*, *Environ. Technol.*, *Wat. Res.*, *ASCE J. Environ. Eng.*, *Biotech. Prog.* (AIChE), *Ozone Sci. Eng.*, *Chemosphere*, *Environ. Sci. Technol.*, *J AWWA*, *Env. Eng. Sci.*

OTHER ITEMS