



clemson.edu/research



tkaranf@clemson.edu



864-656-7701



@ClemsonVPR



[linkedin.com/in/clemsonvpr](https://www.linkedin.com/in/clemsonvpr)



Administrative Office
Clemson University
Division of Research
230 Kappa Street
Clemson, SC 29634-0901

Research Lab
162 L.G. Rich Environmental
Research Laboratory
342 Computer Court
Anderson, SC 29625

Tanju Karanfil, PhD

Curriculum Vitae

- Vice President for Research, Clemson University
- Professor of Engineering and Environmental Sciences
- Professional Engineer Licensed in South Carolina
- Board Certified Environmental Engineer by the American Academy of Environmental Engineers and Scientists
- Fellow of the International Water Association
- Principal Member, Turkish Academy of Sciences

OVERVIEW

Dr. Karanfil became vice president for research at Clemson University in 2016, leading the university's research enterprise through a period of tremendous growth. He currently maintains an active research portfolio as well, focusing on water quality and improvements to water, wastewater and hazardous waste treatment systems, and serves as a consultant to water and wastewater utilities.

- ▶ [Click to read a short biography](#)
- ▶ [Click to read an administrative biography](#)
- ▶ [More on Dr. Karanfil's research interests & impact](#)

ACHIEVEMENTS

Institutional

\$229M in total R&D expenditures in 2020

34% increase in total R&D expenditures from 2015-2019

Academic

160 peer-reviewed articles; 56 h-index; >9,600 citations

100+ graduate students & postdoctoral researchers mentored

TABLE OF CONTENTS

(click to read)

1. Education, Registration and Experience
2. Administrative Record
3. Publications & Proceedings
4. Honors & Awards
5. Sponsored Research
6. Student Advising
7. Teaching
8. Public Service



Tanju Karanfil, PhD
Curriculum Vitae

SHORT BIOGRAPHY

Dr. Karanfil is the Vice President for Research and a Professor of Environmental Engineering and Earth Sciences at Clemson University. He is a registered professional engineer in the State of South Carolina, a Board-Certified Environment Engineer by American Academy of Environmental Engineers, and a Fellow of International Water Association.

Professor Karanfil received his bachelor's degree in environmental engineering from Istanbul Technical University in Turkey in 1988. He completed his graduate work (M.Sc., 1991, Ph.D., 1995, Post-doc., 1996) at the University of Michigan in Environmental Engineering under the supervision of Professor Walter J. Weber, Jr., a member of National Academy of Engineering.

Professor Karanfil has been an Environmental Engineering and Earth Sciences faculty as an instructor (1996-1998), Assistant Professor (1998-2002), Associate Professor (2002-2006), and Professor (2006-present). He served as the Department Chair of Environmental Engineering and Earth Sciences (2008-2014) and the Associate Dean for Research and Graduate Studies in the College of Engineering and Science (2014-2016). Since February 2016, he is the Vice President for Research of Clemson University. He also serves as a consultant to water and wastewater utilities and consulting companies.

Dr. Karanfil's research interests are in the fundamentals and applications of physicochemical processes in natural and engineered environmental systems. His primary research is on adsorption and disinfection by-product (DBP) formation processes and technologies. He also studies the impact of wildfires on water quality and has aided the development of novel environmental treatment technologies. His findings have been published in the premier journals

of his field – *Environmental Science and Technology*, *Water Research*, *Carbon*, *Journal of Colloid and Interface Sciences*, and *Journal of American Water Works Association*. He has authored more than 160 peer-reviewed journal publications with an h-index of 56 and over 300 other technical presentations, reports, extended abstracts, and publications. He co-edited and published two books: *“Occurrence, Formation, Health Effects and Control of Disinfection By-Products in Drinking Water”* and *“Recent Advances in Disinfection by-Products.”* His research was supported by the National Science Foundation (NSF), U.S. Environmental Protection Agency, Department of Energy, and Water Research Foundation. His research has received more than \$11M in funding.

Professor Karanfil is recipient of the NSF CAREER award, S.C. Governor's Award for Excellence in Scientific Research and Special Science Award in Engineering from the Turkish Scientific Research Council, and has received several awards (e.g., CES McQueen Quattlebaum Faculty Achievement Award, Board of Trustees Award for Faculty Excellence) at Clemson University. He has mentored more than 120 graduate students, postdoctoral research associates and international visiting scholars. His students' research has been recognized as best Ph.D. thesis, best M.Sc. thesis, best paper, and best graduate student awards by various professional societies (AWWA, WEF, ACS). He is an Associate Editor of *Water Research* and served on the Editorial Advisory Board of the *Journal of the American Water Works Association*.

MORE THAN

160

**PEER-REVIEWED ARTICLES;
56 H-INDEX; ~10,000 CITATIONS**



Tanju Karanfil, PhD
Curriculum Vitae

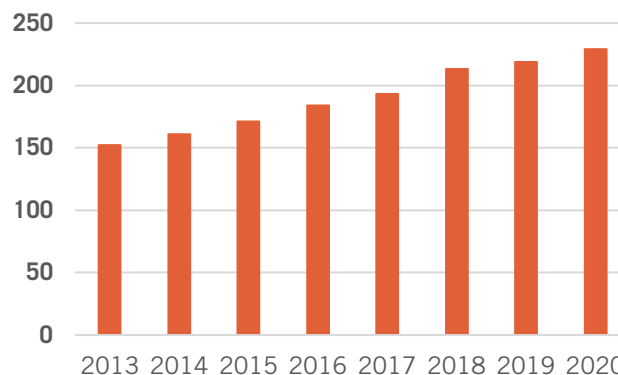
ADMINISTRATIVE BIOGRAPHY

Dr. Karanfil was appointed vice president for research at Clemson University in February 2016 to steer the university's research strategy, working closely with faculty and staff at Clemson and with collaborators in industry and the community.

Clemson joined the list of the nation's top research universities as a Carnegie R1 university in 2016, a reflection of its growth in research expenditures across disciplines and increases to the number of doctorate degrees awarded and postdoctoral and non-faculty researchers on staff. Clemson's performance across all of Carnegie's metrics have improved under Dr. Karanfil's leadership since receiving the R1 designation, and Clemson's R1 classification was confirmed in 2018. Total research and development expenditures are at their highest levels of at least the past eight years at \$229 million in 2020 (see chart below).

As vice president for research, Dr. Karanfil has spearheaded numerous initiatives to nurture research activity and collaboration, foster the professional development of faculty, expand partnership with industry and other external organizations, and secure high-value interdisciplinary research projects. He led a University consortium with Battelle to secure a 10-year management contract (\$3.5B) for Savannah River National Laboratory. He oversees the University's Dominion Energy Innovation Center (a \$100M investment), as well as numerous core facilities that have expanded under his leadership. He led the reorganization and refocus of the University's tech-transfer arm, the Clemson University Research Foundation, to increase opportunities for industry research collaboration. Dr. Karanfil also established programs to celebrate faculty accomplishments, including Researcher of the Year and the University Research, Scholarship and Artistic Achievement Awards, to nurture a positive research culture.

**Total R&D Expenditures
(millions)**



In addition to serving as Vice President for Research, Dr. Karanfil serves and represents Clemson University on several boards and committees (SC Smart-State Endowed Chair, SC EPSCoR, Clemson University Research Foundation, South Carolina Research Authority, South Carolina Universities Research and Education Foundation, Southeastern Universities Research Association, and Oak Ridge Associated Universities).

Before becoming Vice President for Research, Dr. Karanfil served as chair of the environmental engineering and earth sciences department and later as associate dean for research and graduate studies in the College of Engineering, Computing and Applied Sciences. He currently maintains an active research portfolio as well, focusing on water quality and improvements to water, wastewater and hazardous waste treatment systems. Read more about Dr. Karanfil's administrative record in [Section 2](#).



Tanju Karanfil, PhD
Curriculum Vitae

RESEARCH INTERESTS

Dr. Karanfil's primary teaching and research interests are in the fundamentals and applications of physicochemical processes in water, wastewater and hazardous waste treatment systems. His research group is particularly interested in applying fundamentals of chemistry and engineering to address environmental challenges faced in practical applications, including both engineered and natural systems.

Dr. Karanfil has made significant scientific contributions (detailed below) in the areas of (i.) adsorption processes; (ii.) disinfection by-product formation; (iii.) wildfire impacts in water treatment; and (iv.) environmental treatment technologies:

- i. **Adsorption Processes:** Dr. Karanfil and his students have elucidated and advanced our understanding of the removal mechanisms of synthetic organic contaminants (SOCs) as well as natural organic matter by carbonaceous adsorbents (activated carbons, carbon fibers, carbon nanotubes, graphenes, ion exchange resins, microplastics). Dr. Karanfil has tailored sorbents for selective removal of target compounds from water and wastewaters. He has developed quantitative structure relationships for modeling of SOC adsorption by carbon nanotubes, which opened a new area of research in literature. His publications from the adsorption work have been highly cited, indicating utilization by the scientific community. His work has guided in the selection of sorbents and in designing and operating effective adsorbers and ion-exchange systems for water and wastewater treatment. He has developed and produced carbonaceous adsorbents, including their scale up for commercial production, from agricultural waste products for their valorization and reuse. His recent work has also examined the adsorptive interactions of microplastics in environment. Furthermore, his adsorption research documented the potentially negative environmental impacts of the release of carbon nanotubes in natural systems.
- ii. **Disinfection by-product (DBP) formation:** Dr. Karanfil's research has focused mainly on the formation and control of both regulated and emerging DBPs that are known to form in water but are not yet regulated. His research on trihalomethanes, haloacetic acids, halonitromethanes, haloacetonitriles, iodotrihalomethanes and nitrosamines revealed the factors (e.g., precursors, water chemistry, oxidant types, operational conditions) controlling their formation in drinking water, desalinated waters, wastewater effluents, as well as swimming pools. While studying the emerging DBPs, he has used a holistic approach to include the regulated DBPs and toxicological assessment to develop practical solutions for water utilities. The publications from the DBP research have also been highly cited in the literature, indicating their impact.



Tanju Karanfil, PhD
Curriculum Vitae

- iii. **Wildfires impact on water quality:** In recent years, Dr. Karanfil and his collaborators have also investigated the impacts of wildfires on water quality and treatability. He investigated the impacts of wildfires around the U.S. Furthermore, he and his research group have studied the impact of fire-control techniques (e.g., prescribed fires, mechanical testing) to control wildfires, which have been systematically investigated for the first time, and showed that some of these techniques can be viable for certain regions to minimize the negative impacts and risks of wildfires.
- iv. **Development of novel environmental treatment technologies:** Dr. Karanfil and his research group have also explored the use of nanobubbles in both natural and engineered systems. Further, he has investigated regeneration activated carbons and biosolids saturated with per- and polyfluoroalkyl substances (PFAS) using microwave and thermal regeneration techniques. He has conducted fundamental mechanistic studies of these processes as well as examined factors controlling their practical applications.

RESEARCH IMPACT

Dr. Karanfil and his student's peer-reviewed publications have been continuously and increasingly cited. As of June 2021, the total of citations to Dr. Karanfil's journal publications is 9,707, according to [Google Scholar's database](#), and his h-index* is 56. In the great majority of these publications, Dr. Karanfil and his students are either the first author or corresponding author. These citation numbers belong to research papers.

MORE THAN
9,700
CITATIONS

**The h-index attempts to measure both the productivity and impact of the published work of a scientist or scholar. A scholar with an index of h has published h papers each of which has been cited in other papers at least h times.*



Tanju Karanfil, PhD
Curriculum Vitae

1. EDUCATION, REGISTRATION, and EXPERIENCE

EDUCATION

Ph.D., University of Michigan, 1995, Environmental Engineering

M.Sc., University of Michigan, 1991, Environmental Engineering

B.Sc., Istanbul Technical University, TURKEY, 1988, Environmental Engineering

PROFESSIONAL REGISTRATION

Professional Engineer, South Carolina, 2003, No. 23143

American Academy of Environmental Engineers, 2005, No. 04-10040

PROFESSIONAL EXPERIENCE

Clemson University

2016 - current	Vice President for Research, Clemson University
2014 - current	ORAU Councilor of Clemson University
2014 - 2016	Associate Dean for Research and Graduate Studies, College of Engineering and Science
2008 - 2014	Chair, Department of Environmental Engineering and Earth Sciences
2008 - 2014	Director, Clemson Environmental Institute
2006 - current	Professor of Environmental Engineering and Earth Sciences
2002 - 2006	Associate Professor of Environmental Engineering and Science
1998 - 2002	Assistant Professor of Environmental Engineering and Science,
1996 - 1998	Instructor of Environmental Engineering and Science

University of Michigan

1995 - 1996	Postdoctoral Research Fellow in the Department of Civil and Environmental Engineering
1991 - 1995	Graduate Student Research/Teaching Assistant in the Department of Civil and Environmental Engineering



Tanju Karanfil, PhD
Curriculum Vitae

CONSULTING EXPERIENCE

- Design South Professionals, 2012-2013, technical and analytical assistance with the Stage 2 D/DBPR of Easley and Powdersville water utilities
- Startex, Jackson, Wellford and Duncan Water District, 2010-2011, iron and manganese in SJWD water sources and their removal during water treatment
- The Scientific and Technological Research Council of Turkey & Middle East Technical University, 2009-2013, Hazardous Waste Management in Compliance with European Union Environmental Regulations in Turkey
- Arch Chemicals, 2010-2011, evaluation of oxidants for swimming pools
- Design South Professionals, 2010-2011, technical and analytical assistance with the planning of Pioneer water treatment plant
- BP Barber, 2008, rapid small-scale column tests for assessing the feasibility of GAC adsorption in controlling the formation of DBPs at the Orangeburg DPU WTP and distribution system
- Startex, Jackson, Wellford and Duncan Water District, 2006-2007, monitoring of organic carbon sources in SJWD water sources
- Design South Professionals, 2006-2007, technical and analytical assistance with the implementation chemical phosphorus removal and filtration in Anderson wastewater treatment plant
- Startex, Jackson, Wellford and Duncan Water District, 2005-2006, characterization of organic carbon sources in Lyman Lake
- Startex, Jackson, Wellford and Duncan Water District, 2005, characterization the removal of organic carbon, manganese and iron in SJWD water treatment plant



Tanju Karanfil, PhD
Curriculum Vitae

CONSULTING EXPERIENCE continued

- Startex, Jackson, Wellford and Duncan Water District, 2004, understanding the reactivity of natural organic matter in the SJWD water sources toward disinfection by-product formation
- Design South Professionals, 2003-2004, technical and analytical assistance for reducing disinfection by-product formation at Greer water treatment plant
- Design South Professionals, 2003, technical and analytical assistance in the phosphorus removal from Anderson wastewater water treatment plant
- Western Carolina Regional Sewer Authority, 2002-2004, technical assistance to provide solution for stringent metal discharge requirements imposed municipal wastewater treatment plants
- Applied Biochemists, 2002, disinfection by-product formation as a result of algaecide application in natural waters
- Design South Professionals, 2000-2002, technical and analytical assistance in the planning and design of Easley water treatment plant
- Startex, Jackson, Wellford and Duncan Water District, 1996-2001, technical assistance in the planning and design of drinking water treatment plant
- Western Carolina Regional Sewer Authority, 1996-2002, technical assistance in the solution of disinfection problems observed in municipal wastewater treatment plants
- Erim Insaat, Istanbul, TURKEY, 1989, development of computer programs for hydraulic analysis of irrigation systems
- Arisan, Istanbul, TURKEY, 1988-1989, development of computer programs for mathematical modeling of wastewater and storm water collection systems.



Tanju Karanfil, PhD
Curriculum Vitae

MEMBERSHIPS

- Member, Association of Environmental Engineering and Science Professors, AEESP, (1996-)
- Member, American Carbon Society, (1997-)
- Member, American Chemical Society, ACS, (1990-2000)
- Member, American Society of Engineering Education, ASEE, (1998-2001)
- Member, American Water Works Association, AWWA, (1990-)
- Member, International Association on Water Quality, IAWQ, (1993-)
- Member, Water Environment Federation, WEF, (1990-)

PROFESSIONAL ACTIVITIES

- Fellow, International Water Association (2015-)
- Associate Editor, Water Research (2020-)
- Editorial Advisory Board, Journal of American Water Works Association (2008-2013)
- Water Research Foundation, formerly called American Water Works Association Research Foundation,
 - Member of Project Advisory Committee (PAC) overseeing Research Foundation Projects, PAC member for project #361, (1998-2000), # TC01-5 (2002-2004), DON (2002-2005), # 4022 (2006-2010), # 4162 (2008-2010), # 4412 (2011-2012), # 4462 (2013-2015)
 - American Water Works Association South Carolina Section
 - Member of Research Committee (1997-2001)
 - Member of Publications Committee (1997-2001)
 - Member of Student Activity Committee (1997-2001)
 - Member, Standard Methods Committee



Tanju Karanfil, PhD
Curriculum Vitae

PROFESSIONAL ACTIVITIES continued

- Reviewer for papers submitted for publication to:
 - *Advances in Environmental Research*
 - *ASCE Journal of Environmental Engineering*
 - *Carbon*
 - *Chemosphere*
 - *Desalination*
 - *Environmental Science & Technology*
 - *Environmental Engineering Science*
 - *Environmental Toxicology and Chemistry*
 - *Industrial & Engineering Chemistry Research*
 - *Journal of Hazardous Materials*
 - *Journal American Water Works Association*
 - *Separation Science and Technology*
 - *Waste Management*
 - *Water Environment Research*
 - *Water Research*

- Reviewer for research proposals submitted:
 - *American Water Work Association Research Foundation,*
 - *Water Research Foundation*
 - *National Science Foundation*
 - *North Carolina Water Resources Research Institute*

- 2007, American Chemical Society, Symposium Lead and Organizer on “*Occurrence, Formation, Health Effects and Control of Disinfection By-Products in Drinking Water*”

- 2010, Annual World Carbon Conference, American Carbon Society
 - Member of Technical Committee
 - Chair of Three Technical Sessions

- Nano 2010, Fifth International Conference on Environmental Effects of Nanoparticles and Nanomaterials
 - Member of Technical Committee
 - Chair of a Technical Session



Tanju Karanfil, PhD
Curriculum Vitae

PROFESSIONAL ACTIVITIES continued

- Istanbul International Solid Waste, Water, and Wastewater Congress 2013
 - Member of Scientific Committee

- 2014, American Chemical Society, Symposium Lead and Organizer on “*Occurrence, Formation, Health Effects and Control of Disinfection By-Products in Drinking Water*”

- Tenure and Promotion Files and Program Reviews
 - Arizona State University
 - Georgia Institute of Technology
 - King Abdullah University of Science and Technology
 - Peking University (twice)
 - Qatar University
 - Southern Methodist University
 - The University of British Columbia
 - University of Akron (twice)
 - University of Florida (twice)
 - University of Georgia (twice)
 - University of Illinois Urbana-Champaign
 - University of Memphis
 - University of North Carolina



Tanju Karanfil, PhD
Curriculum Vitae

2. ADMINISTRATIVE RECORD

2016-present Vice President for Research, Clemson University

As the chief research officer of Clemson University, a Carnegie R1 (highest research activity) doctoral university, Dr. Karanfil oversees a research portfolio of about \$200M in total R&D expenditures per year, which has been on a continuous rise and hit a high mark of \$229 million in 2020. Dr. Karanfil oversees ~\$600M worth of annual proposal submissions from a faculty body of about 1,000. As described in this section, Dr. Karanfil has spearheaded numerous initiatives to enhance the research culture at Clemson, to increase proposal submissions, and to improve competitiveness for research awards. Proposal submissions have increased significantly under his leadership (see chart on following page). Dr. Karanfil has placed particularly strong emphasis on high-value research projects valued above \$2 million. Since 2015, Clemson faculty have earned 58 such awards, valued at a combined \$281 million.

Dr. Karanfil serves in numerous leadership roles:

- Serves as the Clemson representative on the governing board of Savannah River National Laboratory.
 - Dr. Karanfil led the Clemson University and University consortium team that bid for management of Savannah River National Laboratory with Battelle. The team won the contract, which is valued at about \$3.5 billion over the next 10 years.
- Oversees the operation of the [Clemson University Dominion Energy Innovation Center](#), a 100M+ investment.
 - Dr. Karanfil has worked to bring new funding opportunities to the facility, including industry contracts.
- Oversees Clemson University Research Foundation, the innovation and tech transfer arm of the University: <http://curf.clemson.edu/>
 - During Dr. Karanfil's tenure, CURF reorganized its operational structure to further nurture and support industry collaboration.
- Oversees the operation of selected [University Core Facilities](#), including:
 - The Electron Microscopy Facility
 - Clemson Light Imaging Facility (CLIF)
 - Godley-Snell Research Center
 - Aquatics Animal Research Lab
 - These facilities have expanded and added equipment under Dr. Karanfil's leadership.
- Oversees the University's performance in the Carnegie Classification and related data analytics.
 - Clemson's performance in Carnegie metrics have improved under his leadership.

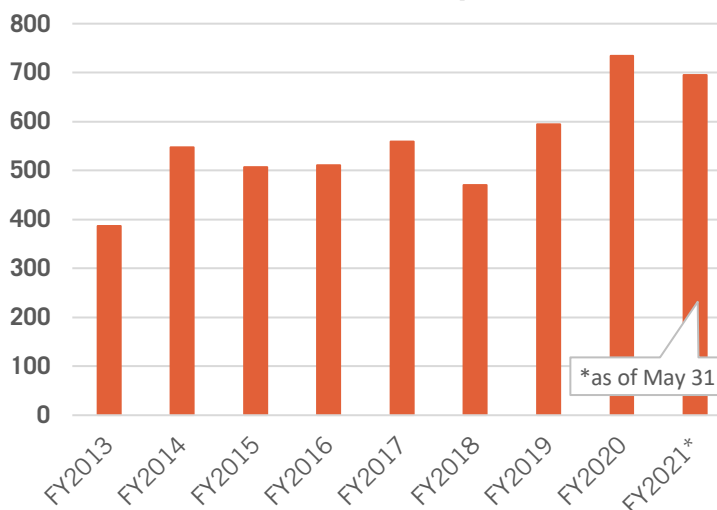


Tanju Karanfil, PhD
Curriculum Vitae

During his tenure as Vice President for Research, Dr. Karanfil has undertaken numerous duties and responsibilities and reported several accomplishments that have contributed to the university's strategic plan to become a perennial R1 institution:

- Works with the Research and Economic Development Committee of the Clemson University Board of Trustees and presents the University Research Report at quarterly board meetings.
 - <https://blogs.clemson.edu/clemsonresearch/category/quarterly-research-report/>
- Serves on the President's Executive Leadership Team:
 - <https://www.clemson.edu/administration/elt.html>
 - Supported and participated in the Development of the Clemson Strategic Plan, particularly the Research component: ClemsonForward: <https://www.clemson.edu/forward/>. He has been the principal leader for the implementation of the research plan. Clemson exceeded the ClemsonForward goal of \$100M in annual competitive expenditures seven years ahead of the target date.
 - Supports the development of several key University strategic initiatives, especially with research and academic development components, including collaborations with the Offices of Governmental Affairs and VP for External Affairs as well as determination of the University's Federal and State priorities.
 - During the COVID-19 pandemic, Dr. Karanfil worked with university and college leadership to reduce research activity to essential activity, while developing numerous resources to help faculty during modified operations, including guidance documents and a directory of funding opportunities and potential collaborators.
- Serves as the University Representative in several boards and committees (e.g., Smart-State Chair, EPSCoR, SCRA, SCBIO, SCFCA, SCUREF, SURA, ORAU).
 - Dr. Karanfil has presented webinars to APLU Council of Research Officers and Council on Governmental Relations to provide national leadership on the financial impact of COVID-19 on university research.

Value of Research Proposals (millions)





Tanju Karanfil, PhD
Curriculum Vitae

- Oversees the university's research enterprise.
 - Dr. Karanfil has put in place various mechanisms and initiatives (examples in bullets below) designed to support an increase in the submission of large (>\$ 2M) collaborative & inter-disciplinary research proposals (e.g., STC, PIRE, ERC, EFRC, MRSEC, NNMI, NNCI, NRT, EPSCoR Track 1 and 2).
 - Clemson's Federal expenditures had been relatively flat at about \$50M for 15 years until 2016. Since then, Clemson has been on a positive trajectory, exceeding \$80M in 2020.
 - Implemented the "R-Initiative" programs to stimulate interdisciplinary and collaborative research: <http://www.clemson.edu/research/r-initiatives/>
 - Through those programs, the Division of Research has invested more than \$6M in projects involving 358 faculty in the past three years.
 - These funds have helped faculty secure \$6M in additional external funding, acquire 14 new pieces of instrumentation, and publish 10 books and 38 journal articles. Additionally, funds have helped 78 students earn PhDs and have assisted in the hiring of 18 postdocs and research faculty.
 - Established the [Researcher of the Year](#) and [University Research, Scholarship and Artistic Achievement Award](#) programs to celebrate faculty excellence and improve research culture.
 - Established the [Career Academy](#) to help junior faculty draft competitive proposals for young investigator awards. Average number of career awards received at Clemson have doubled under Dr. Karanfil's leadership.
 - Implemented a Federal Priorities initiative with Washington DC consultants, McAlister and Quinn, to identify and secure significant research funding, in the areas of military vehicles, human genetics, health extension, advanced lasers, materials and smart autonomous ground systems.
 - Established the annual University Research Symposium to connect faculty for interdisciplinary research collaborations:
 - <http://www.clemson.edu/research/symposium.html>

These efforts have improved the research culture at Clemson and have resulted in significant increases in large proposal submissions and overall research awards at the University.

Since 2015, Clemson faculty have earned 58 competitive awards valued above \$2M (e.g., NSF EPSCoR Track-1 and Track-2, NSF NRT, NSF ADVANCE, DOE EPSCoR, NIH COBREs, NIH R01s, several NSF CAREERS, DoT Transportation Center, etc.).

Additionally, Dr. Karanfil manages an operational budget of \$15-20M and leads the Division of Research, which consists of 10 units and more than 100 staff members. Maintaining an efficient operation and budget balance each year under Dr. Karanfil's leadership has allowed for strategic investments to advance research.

58 Major projects of at least \$2M since 2016

Total value of these projects is

\$281M



Tanju Karanfil, PhD
Curriculum Vitae

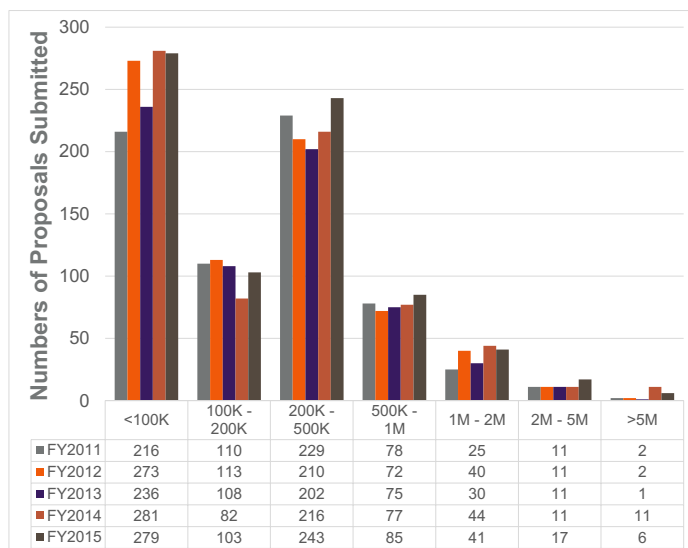
2014-2016 Associate Dean for Research and Graduate Studies, College of Engineering and Science, Clemson University

- As the chief research officer of College of Engineering and Science, oversaw a research portfolio of about \$40M expenditures per year, \$300M worth of proposal submissions by about 300 T/TT faculty in the College and the research infrastructure of the College. Also oversee graduate programs in 14 departments of College that consist of about 1,800 graduate students/yr. College graduates over 100 Ph.D. per year.
- Managed the distribution of \$500K internal funding through the TIGER (Transformative Initiative for Generating Extramural Research) grants program, to provide financial support for the establishment or expansion of multi-disciplinary collaborations teams to lead to the development of large competitive proposals.
- Created and added the position of Large Research Proposal Coordinator to offer coordination and communication support to PI's of select large research proposals.
- Led and coordinated implementation of Elsevier's Pure Experts system at Clemson to create first centralized CES Experts Database, a first for the university as well.
- Led and coordinated the development of a centralized, searchable equipment inventory database to support a collaborative research environment.
- Developed new CES ADRGS website, which is the primary resource for graduate studies, post-doc affairs, college research events and news, proposal development and grant management in the college including several templates.
- Started annual CES Research Symposium as a platform for faculty across the college to tell their stories and find others of similar or complementary interests.
- Broadened the CES ADRGS Seminar Series to include many outside speakers with wide appeal, including project and program managers from government agencies, as well as internal speakers with strong knowledge of specific funding agencies to encourage faculty to submit more successful research proposals.
- Established first Post-Doc Support Office in the college which became sustaining member of the National Post-doc Association. This office has successfully supported development of a Clemson Post-Doc Association, developed handbooks and resources, participated in National Post-Doc Appreciation week, held annual summer research seminar series, and sent representatives to the annual NPA conference.



Tanju Karanfil, PhD
Curriculum Vitae

- Provided administrative support and oversight in many large proposals including cost-share requests and negotiations, space needs and several other related matter.
- The chart at right shows the proposal submissions trends in the College of Engineering and Sciences.
- Provide oversight to the CES Proposal Development/Pre-Awards (6 FTE) and Grant Management/Post-Awards (5 FTE) offices.



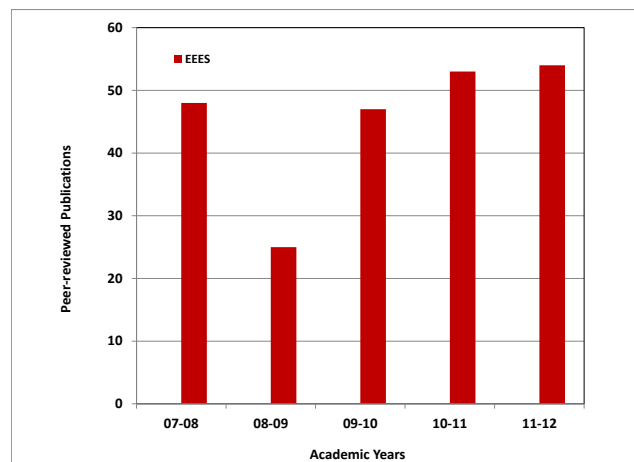
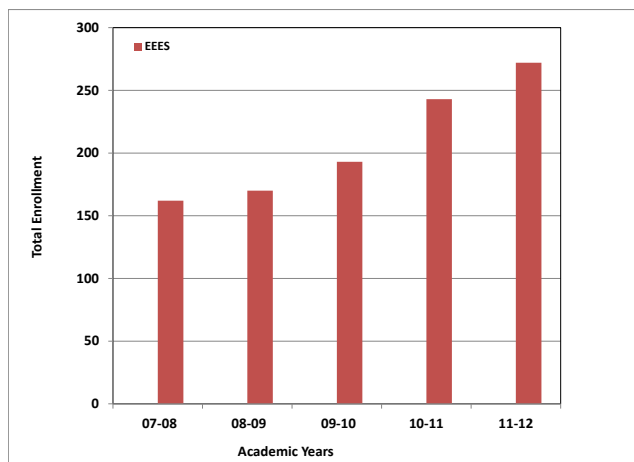
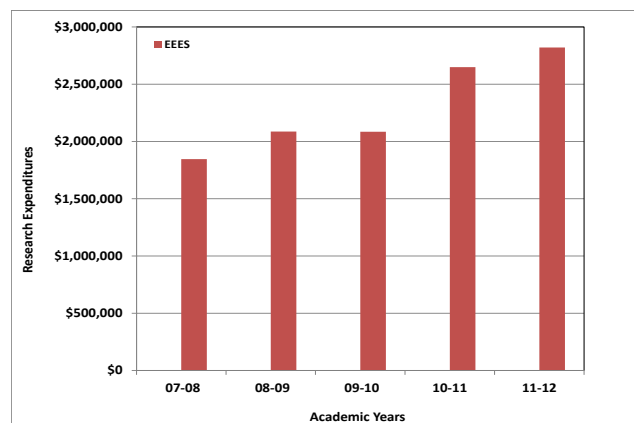
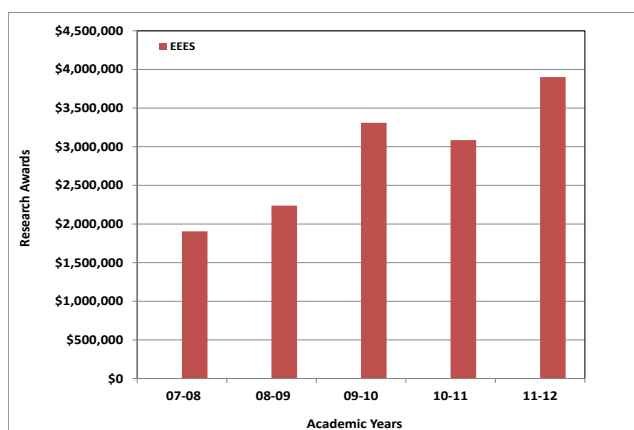
- Increase efforts to support department-centric graduate programs at the college level
- Implemented regular meeting of the CES Graduate Faculty and Staff Coordinators
- Added Assistant Director of Graduate Studies & Post-Doc Affairs position
- Oversee College of Engineering and Science Graduate Teaching Assistant Training at beginning of academic years. Have recreated the training to include a website with many resources and information for graduate TA's to reference.
- Oversee the implementation of Dean Scholar Programs
- Developed and published semi-annual CES Research Newsletter, Convergence.
- Lead to the development of Dean Faculty Award Program for faculty retention and recognition.
- Implemented regular meetings of new committees/groups to seek input from departments, ADRGS Advisory Board and Research Infrastructure Committee.



Tanju Karanfil, PhD
Curriculum Vitae

2008-2014 Chair, Environmental Engineering and Earth Sciences, Clemson University

Department Trends



- Successfully hired several tenure-track faculty members (Anctil, Darnault, Finneran, Ladner, Shuller, and Yi), lecturers (Coulson, Nammouz), a laboratory manager (Cummings), and a staff person (Economy). All the hired personnel were the top choices of the Department in the search processes.
- Generated resources for the departmental share of the start-up packages for the new faculty members during the great recession and period of budget cuts. These resources were generated mainly from: (i) the careful management of departmental budget, (ii) new revenue sources generated through online courses offered during summer, and (iii) a grant (\$400K) obtained from the Nuclear Regulatory Commission.



Tanju Karanfil, PhD
Curriculum Vitae

- Worked with Dean Gulari and assisted President Barker in attracting \$1M Toshiba Endowed Chair Position from Shaw Corporation as a part of the Will to Lead Capital Campaign. Dr. Tim DeVol was appointed as the first holder of the Endowed Chair.
- Several faculty and students have won important national recognitions: Two junior faculty received CAREER Awards, Clemson University Sigma Xi Young Investigator Award, Kavli Fellow of the National Academy of Sciences, and several graduate students' national fellowships and recognitions (e.g., NSF GRF, EPA STAR, Best Ph.D. thesis, Best paper etc.).
- Led to a successful creation of a new undergraduate degree in environmental engineering, the first degree of its kind in South Carolina. The new degree reached 110 undergraduate students after 4 years. Application to ABET for accreditation was submitted for the degree. Site visit will be scheduled for Fall 2013.
- Successful ABET visits and re-accreditation were completed for the two other degrees in the Department (Biosystems Engineering, BS and Environmental Health Physics, MS). The ABET site visit of our new Environmental Engineering degree was just completed with no concern or short comings. A full accreditation is expected at the summer meeting of ABET.
- Led the departmental preparation to the Strategic Planning Meeting with the 3 mission Vice Presidents of the University.
- Department's new research awards and expenditures have been continuously increasing in the past five years. During 2011-2012, the new research awards reached \$3.9M, while the research expenditures totaled \$2.8M. This corresponds to approximately \$200K/TT faculty and \$125K/TT faculty, respectively. During the same period, Department average peer-reviewed publication productivity was 3.0/faculty.
- Carefully managed and delivered balanced department budgets every year during the challenging economical times.
- Served as the Director of Clemson Environmental Institute (CEI). Prepared and submitted annual performance reports and obtained financial support from the Vice President for Research Office.
- Developed the workload and teaching assignments of all EEES faculty members for three academic year periods to enable more effective and optimum use of faculty time.
- Developed a detailed annual faculty evaluation methodology, which did not exist previously in the department. The new methodology was discussed with the faculty, revised, and currently being used for the annual faculty evaluations.



Tanju Karanfil, PhD
Curriculum Vitae

- Led the development and approval of a research equipment fee structure that allows EEES faculty to write equipment user fees in the research grant applications. This user fees structure is currently in place.
- Worked with faculty and lecturers to develop online course offerings during summer. Summer course revenues reached \$100 to \$150 K/year.
- Supported and worked together with Scott Brame for the successful organization of the Annual Hydrogeology Symposium (350 attendees and 30+ exhibitors) every year. The Symposium has been using the maximum physical capacity of the Madren Center during the last three years, and it continues to be a popular event. The Symposium is another good revenue resource for the department.
- Three Professional Advisory Boards (PABs) for ABET and one Department Advisory Boards were established. Their annual meetings were successfully held.
- Led the establishment of a new professional student chapter (joint chapter of American Water Works Association and Water Environment Federation) at Clemson.
- Led the development of a new web page for the department. Have supervised the maintenance and updates of the web page.
- Started many activities to establish alumni relationships which have been previously absent in the Department:
 - Started an alumni newsletter, which is currently being mailed two times a year to the alumni.
 - Sent periodic email updates to alumni about the department activities and accomplishments.
 - Started e-newsletter for the Department, currently being published three times in a year and distributed in the Department, College and the University.
 - Started an annual review publication for the Department, which is mailed every year to about 100 Dept. Chairs of Environmental Engineering programs around the country.
 - Met with several alumni at the meetings, conferences and other functions, and work closely with the University development officers.
 - Developed an online donation link on the Department web page.



Tanju Karanfil, PhD
Curriculum Vitae

- Completed annual faculty reviews, Tenure/Promotion and Post Tenure Reviews, and staff reviews.
- Completed several successful department infrastructure upgrades with the assistance of the Laboratory Manager (Cummings) and the Building Manager (Dunn), and used good planning and creative ways for funding these projects: (i) two graduate student office areas in Brackett Hall were renovated, (ii) a new office space in the L.G. Rich Laboratories was created for the Laboratory Manager, (iii) computers in the L.G. Rich Laboratories were completely renewed, (iv) unused laboratory spaces at the L.G. Rich Laboratories were identified, cleaned and made available to the faculty research. In addition, the old vitrification laboratory used to be a storage space was cleaned and made available for some large-scale research projects, (v) classroom, cantina, entrance area furniture, and conference room were upgraded at Rich Laboratories, (vi) renovation of 4th floor of the Brackett Hall including new classroom, laboratories, student lounges, a computer laboratory for the new Environmental Engineering and Biosystems Engineering majors was completed, (vii) reorganization of the 3rd floor of the Brackett Hall including the main Departmental Office was completed, (viii) several equipment in the Department's analytical laboratory were updated, new equipment were purchased, funds for these needs were generated. Department currently has state-of-art analytical research facilities, which are maintained by a full-time laboratory manager.
- Annual Chair Meetings were held with each group of EEES majors (BE, Env. Eng., Geology) in the Fall to learn about their experiences, needs and wishes.



Tanju Karanfil, PhD
Curriculum Vitae

3. PUBLICATIONS

Books

Karanfil, T. Mitch, W., Westerhoff, P. and Xie, Y. *Recent Advances in Disinfection By-Products*. American Chemical Society, 459 pages (2015).

Karanfil, T. Krasner, S.W., Westerhoff, P. and Xie, Y. *Occurrence, Formation, Health Effects and Control of Disinfection By-Products in Drinking Water*. American Chemical Society, 365 pages (2008).

Book Chapters (*Peer-Reviewed or **Editorial Review)

1. *Kanan, A., Selbes, M. and Karanfil, T. "Chapter 21: Occurrence and Formation of Disinfection By-Products in Indoor US Swimming Pools" in *Recent Advances in Disinfection By-Products Formation*. Eds. Karanfil, T. Mitch, W., Westerhoff, P. and Xie, Y. American Chemical Society, pp. 405-430 (2015).
2. *Selbes, M., Shan, J., Kaplan Bekaroglu, S.S. and Karanfil, T. "Chapter 12: Carbonaceous and Nitrogenous Disinfection By-Product Formation Potentials of Amino Acids" in *Recent Advances in Disinfection By-Products Formation*. Eds. Karanfil, T. Mitch, W., Westerhoff, P. and Xie, Y. American Chemical Society, pp. 215-234 (2015).
3. *Selbes, M., Glenn, M. and Karanfil, T. "Chapter 9: The Role of Pre-oxidation in Controlling NDMA Formation: A Review" in *Recent Advances in Disinfection By-Products Formation*. Eds. Karanfil, T. Mitch, W., Westerhoff, P. and Xie, Y. American Chemical Society, pp. 135-149 (2015).
4. *Karanfil, T., Krasner, S.W., Westerhoff, P. and Xie, Y. "Chapter 1: Disinfection By-Products: An Overview" in *Occurrence, Formation, Health Effects and Control of Disinfection By-Products in Drinking Water*. Eds. Karanfil, T. Krasner, S.W., Westerhoff, P. and Xie, Y. American Chemical Society, pp. 2-19 (2008).
5. *Karanfil, T., Hong Y. and Song, H. "Chapter 9: HAA Formation and Speciation during Chloramination" in *Occurrence, Formation, Health Effects and Control of Disinfection By-Products in Drinking Water*. Eds. Karanfil, T. Krasner, S.W., Westerhoff, P. and Xie, Y. American Chemical Society, pp. 123-139 (2008).



Tanju Karanfil, PhD
Curriculum Vitae

Book Chapters (*Peer-Reviewed or **Editorial Review) continued

6. *Tan, Y., Kilduff, J.E. and Karanfil, T. "Chapter 17: Natural Dissolved Organic Matter Removal and Subsequent Disinfection Byproduct Formation: A Comparison of Ion Exchange and Activated Carbon" in *Occurrence, Formation, Health Effects and Control of Disinfection By-Products in Drinking Water*. Eds. Karanfil, T. Krasner, S.W., Westerhoff, P. and Xie, Y. American Chemical Society, pp. 242-256 (2008).
7. **Hong Y., Liu, S., and Karanfil, T. "Chapter 1.2: Chloramination for Disinfection By-Product Control," in *Advances in Control of Disinfection By-Products in Drinking Water Systems*, Nikolau, A., Rizzo, L. and Selcuk H. Eds., Nova Science Publishers, Inc. pp. 29-55 (2007).
8. **Tan, Y., Kilduff, J.E., and Karanfil, T. "Chapter 7.6: Ion Exchange Processes for Natural Organic Matter Removal and Disinfection By-Product Control," in *Advances in Control of Disinfection By-Products in Drinking Water Systems*, Nikolau, A., Rizzo, L. and Selcuk H. Eds., Nova Science Publishers, Inc. pp. 457-475 (2007).
9. *Karanfil, T. "Chapter 7: Activated Carbon Adsorption in Drinking Water Treatment," in *Activated Carbon Surfaces in Environmental Remediation*, Bandosz, T. Eds., Interface Science and Technology, Volume 7, pp. 345-374 (2006).
10. *Kilduff, J.E., Srivatasa, R., and Karanfil, T. "Preloading of GAC by Natural Organic Matter: Effect of Surface Chemistry on TCE Uptake," in: *Characterization of Porous Solids VI, Studies in Surface Science and Catalysis, Vol 44*. Rodriguez-Reinoso, F.; McEnany, B.; Rouquerol, J.; Unger, K., Eds. Elsevier Science BV. pp. 553-560 (2002).
11. **Karanfil, T. and Logan, B. "Gas Transfer: Measurement of Oxygen Mass Transfer Coefficient in Simulated Engineered and Natural Systems," in *Environmental Engineering Processes Laboratory Manual*, Powers, S. Ed., Association of Environmental Engineering and Science Professors, Illinois (2001).
12. *Karanfil, T., Kitis, M., Kilduff, J.E., and Wigton, A. "Chapter 13: The Use of GAC Adsorption for NOM Control and Its Reactivity to DBP Formation," in *Natural Organic Matter and Disinfection By-Products*, Barrett, S., Krasner, S., and Amy, G., Eds., ACS Symposium Series, Washington, DC: American Chemical Society, pp. 190-205 (2000).



Tanju Karanfil, PhD
Curriculum Vitae

Reports (Reviewed and Published in a Book Format)

1. Westerhoff, P., Sharma, N., Zeng, C., Karanfil, T., Kim, D., Ghosh, A., Seidel, C., Samson, C., Eaton, A. "Occurrence Survey of Bromide and Iodide in Water Supplies" Water Research Foundation, Denver, Colorado, 145 pages (2021)
2. Russell, C., Cornwell, D., Reckhow, D., Brown, R., Karanfil, T., Ersan, M. and Evans, A. "Unintended Consequences of Implementing Nitrosamine Control Strategies" Water Research Foundation, Denver, Colorado, 203 pages, (2018).
3. Dickenson, E.R.V., Mitch, W.A., Karanfil, T. "Major Sources of Nitrosamine Precursors from Raw Waters and Distribution Systems" Water Research Foundation, Denver, Colorado, 218 pages, (2017).
4. Uzun, H., Kim, D., Beita-Sandi, W., Ersan, M.S., Karanfil, T. and Petry, C. "Seasonal Changes of NDMA FP in Surface Waters and its Removal during Water Treatment" Water Research Foundation, Denver, Colorado, 279 pages, (2016).
5. Amburgey, J.E., Alansari, A.Y., Karanfil, T., Selbes, M., Kim, J., Lee, S., and Park, Y. "Coagulation-Ceramic Membrane Filtration for US Surface Water Treatment," Water Research Foundation, Denver, Colorado, 283 pages, (2014).
6. Karanfil, T., Hu, J., Jones, D.B., Addison, J.A., and Song, H. "Formation of Halonitromethanes and Iodo-Trihalomethanes in Drinking Water," Water Research Foundation, Denver, Colorado, 349 pages, (2011).
7. Karanfil, T., Hong, Y. and Song, H. "Exploring the Pathways of HAA Formation during Chloramination," American Water Works Association Research Foundation, Denver, Colorado, 331 pages, (2007).
8. Karanfil, T., Cheng, W., Guo, Y., Dastgheib, S.A. and Song, H. "DBP Formation Control by Modified Activated Carbons," American Water Works Association Research Foundation, Denver, Colorado, 191 pages, (2007).
9. Westerhoff, P., Karanfil, T. and Crittenden, J. "Aerogel & Iron-Oxide Impregnated Granular Activated Carbon Media for Arsenic Removal," American Water Works Association Research Foundation, Denver, Colorado, 82 pages, (2006).



Tanju Karanfil, PhD
Curriculum Vitae

Reports (Reviewed and Published in a Book Format) continued

10. Karanfil, T., Erdogan, I. and Schlautman, M.A. "The Role of Filtration in DOC, UV254 and SUVA254 Determinations," American Water Works Association Research Foundation, Denver, Colorado, 370 pages, (2005).

Refereed Journal Publications

1. Soyluoglu, M., Kim, D., Zaker, Y. and Karanfil, T. "Stability of Oxygen Nanobubbles under Freshwater Conditions," *Water Research*, in review (2021).
2. Grote, M., Boudenne, J-L., Croue, J-P., Escher, B., von Gunten, U., Hofer, T., Jenner, H., Jiang, J., Karanfil, T., Khalanski, M., Kim, D., Linders, J., Maas, J., Manasfi, T., Polman, H., Quack, B., Tegtmeir, S., Werschkun, B., Zhang, X. and Ziegler, G., "Inputs of Disinfection By-Products into the Marine Environment – Sources, Quantities and Potential Risks," *Water Research*, in review (2021).
3. Can-Sener, S.E., Thomas, V.M., Hogan, D.E., Maier, M.R., Carbajales-Dale, M., Barton, M.D., Karanfil, T., Crittenden, J.C. and Amy, G., "Recovery Potential of Critical Minerals and Metals from Aqueous Sources," *ACS Sustainable Chemistry & Engineering*, in revision (2021).
4. Chow, A., Chen, H., Olivares, C., Uzun, H., Wang, J-J., Tsui, M., Liu, Y., Burton, S., Robinson, E., Santos, F., Berhe, A.A., Karanfil, T., Trettin, C. and Dahlgren, R. "Wildfire Severity Controls Pyrogenic Dissolved Organic Carbon and Nitrogen Properties," *Nature Geosciences*, in review (2021).
5. Liu, C., Shin, Y-H., Ersan, M.S., Wagner, E., Plewa, M.J., Amy, G. and Karanfil, T., "Algal Organic Matter is Halogenated better by Iodine than Chlorine and Bromine and Formed Iodinated Byproducts Correlate with Toxicity of Disinfected Waters," *Environmental Science and Technology*, in revision (2021).
6. McMahan, C.S., Self, S., Rennert, L., Kalbaugh, C., Kriebel, D., Graves, D., Deaver, J.A., Popat, S., Karanfil, T. and Freedman, D.L. "COVID-19 Wastewater Epidemiology: A Model to Estimate Infected Populations," *The Lancet Planetary Health*, in revision (2021).
7. Ersan, G., Ersan, M.S., Kanan, A. and Karanfil, T., "Predictive Modeling of Haloacetonitrile Formation Under Uniform Formation Conditions," *Water Research*, **201**, 117322 (2021).



Tanju Karanfil, PhD
Curriculum Vitae

8. Bakkaloglu, S., Ersan, M., Karanfil, T. and Apul, O. "Effect of Superfine Pulverization of Powdered Activated Carbon on Adsorption of Carbamazepine in Natural Source Waters," *Science of the Total Environment*, **793**, 148473 (2021).
9. Gagliano, E., Falciglia, P.P., Karanfil, T., Roccaro, P. "Microwave Regeneration of Granular Activated Carbon Saturated with PFAS," *Water Research*, **198**, 117121 (2021).
10. Olivares, C.I., Uzun, H., Erdem, C.U., Zhang, W., Trettin, C., Liu, Y., Burton, S., Robinson, E., Karanfil, T. and Chow, A. "Increased Organohalogen Diversity After Disinfection of Water from a Prescribed Burned Watershed," *ACS ES&T Water*, **1** (5), 1274-1282 (2021).
11. Chen, H., Tsai, K-P., Liu, Y., Tolic, N., Rosalie, K.C., Burton, S., Karanfil, T. and Chow, A. "Characterization of Dissolved Organic Matter from Wildfire-induced *Microcystis aeruginosa* Blooms Controlled by Copper Sulfate as Disinfection Byproduct Precursors using APPI(-) and ESI(-) FT-ICR MS," *Water Research*, **189**, 116640 (2021).
12. Kanan, A., Soyuluoglu, M. and Karanfil, T. "Removal of the precursors of regulated DBPs and unknown TOX from surface waters and wastewater effluents using mixed anion exchange resins," *Chemosphere*, **263**, 128094 (2021).
13. Apul, O.G., Perreault, F., Ersan, G. and Karanfil, T. "Predictive Model Development for Adsorption of Organic Compounds by Carbon Nanomaterials: An Overview of the Last Decade from Ground up," *Environmental Science: Water Research & Technology*, **6**, 2949-2957 (2020).
14. Uzun, H., Zhang, W., Olivares, C., Erdem, C.U., Coates, A., Karanfil, T. and Chow, A. "Effect of Prescribed Fires on the Export of Dissolved Organic Matter, Precursors of Disinfection By-Products and Water Treatability," *Water Research*, **187**, 116385 (2020).
15. Zhang, X., Kim, D., Freedman, D.L. and Karanfil, T. "Impact of Biological Wastewater Treatment on the Reactivity of *N*-Nitrosodimethylamine Precursors," *Water Research*, **186**, 116315 (2020).
16. Kanan, A. and Karanfil, T. "Estimation of Haloacetonitriles (HANs) Formation: Uniform Formation Conditions versus Formation Potential," *Science of the Total Environment*, **744**, 140987, (2020).



Tanju Karanfil, PhD
Curriculum Vitae

17. Huan, C., Uzun, H., Chow, A. and Karanfil, T. "Low Water Treatability Efficiency of Wildfire-induced Dissolved Organic Matter and Disinfection By-product Precursors," *Water Research*, **184**, 116111 (2020).
18. Kim, D. Kanan, A., Sharma, N., Westerhoff, P. and Karanfil, T. "Total organic halogen (TOX) species formation at different locations in drinking water distribution systems," *Environmental Science: Water Research & Technology*, **6**, 2542 - 2552 (2020).
19. Zhang, X., Kim, D., Freedman, D. and Karanfil, T. "Source Characterization and Removal of N-Nitrosamine Precursors During Activated Sludge Treatment," *Environmental Science: Water Research & Technology*, **6**, 2432 - 2443 (2020).
20. Erdem, C.U., Ateia, M., Liu, C. and Karanfil, T. "Activated Carbon and Organic Matter Characteristics Impact the Adsorption of DBP Precursors when Chlorine is Added Prior to GAC Contactors," *Water Research*, **184**, 116146 (2020).
21. Liu, C., Ersan, M.S., Wagner, E., Plewa, M.J., Amy, G. and Karanfil, T. "Toxicity of Chlorinated Algal-impacted Waters: Formation of Disinfection Byproducts vs. Reduction of Cyanotoxins," *Water Research*, **184**, 116145 (2020).
22. Linard, E.N., Lee, C.M., Karanfil, T. and van der Hurk, P. "Competitive Adsorption of PAHs to Carbon Nanotubes and the impact on Bioavailability to Fathead Minnow (*Pimephales promelas*)," *Environmental Toxicology and Chemistry*, **39**, (9) 1702-1711 (2020).
23. Uzun, H., Dahlgren, R.A., Olivares, C., Karanfil, T. and Chow, A. "Two-years of Post-Wildfire Impacts on Dissolved Organic Matter, Nitrogen, and Precursors of Disinfection By-Products in California Stream Waters," *Water Research*, **181**, 115891 (2020).
24. Partlan, E., Ren, Y., Apul, O.G., Ladner, D.A. and Karanfil, T. "Adsorption Kinetics of Synthetic Organic Contaminants onto Superfine Powdered Activated Carbon" *Chemosphere*, **253**, 126628 (2020).
25. Martin, T., Uzun, H., Ruecker, A., Majidzadeh, H., Ulus, Y., Zhang, H., Shaowu, B., Joel, B., Karanfil, T. and Chow, A. "Concentration and Isotopic Composition of Mercury Exported in a Blackwater River as Affected Extreme Flooding Events," *Limnology and Oceanography*, **65** (9), 2158-2169 (2020).
26. Ateia, M., Kanan, A. and Karanfil, T. "Microplastics Release Precursors of Chlorinated and Brominated Disinfection Byproducts in Water," *Chemosphere*, **251**, 126452 (2020).



Tanju Karanfil, PhD
Curriculum Vitae

27. Ateia, M., Zeng, T., Tharayil, N., Pilla, S. and Karanfil, T. "Sorption Behavior of Real Microplastics (MPs): Insights for Organic Micropollutants Adsorption on a Large Set of Well-Characterized MPs," *Science of the Total Environment*, **720**, 137634 (2020).
28. Apul, O.G., Khalid, A., Rowles, L.S. and Karanfil, T., Richardson, S.D. and Saleh, N.B. "Transformation Potential of 11-Nor-9-Carboxy-D9-Tetrahydrocannabinol During Its Passage Through Engineered Water Treatment Systems: A Perspective," *Environmental International*, **137**, 105586 (2020).
29. Park, M., Wu, S., Lopez, I.J. Chang, J.Y., Karanfil, T. and Snyder, S.A. "Adsorption of Perfluoroalkyl Substances (PFAS) in Groundwater by Granular Activated Carbons: Roles of Hydrophobicity of PFAS and Carbon Characteristics," *Water Research*, **170**, 115364 (2020).
30. Khalid, A., Rowles, L.S., Ateia, M., Xiao, M., Ramirez-Sanchez, I., Bello D., Karanfil, T., Saleh, N.B. and Apul, G. O. "Mesoporous Activated Carbon Shows Superior Adsorption Affinity for 11-Nor-9-Carboxy-D9-Tetrahydrocannabinol in Water," *Clean Water*, **3**, 2 (2020).
31. Ike, I., Karanfil, T., Ray, S. Cho, J. and Hur, J. "A Critical and Comprehensive Review of Mathematical Models Developed for the Estimation of Organic Disinfection Byproducts," *Chemosphere*, **246**, 125797 (2020).
32. Majidzadeh, H., Uzun, H., Chen, H. Bao, S., Tsai, K-P., Karanfil, T. and Chow, A.T. "Hurricane Resulted in Releasing More Nitrogenous than Carbonaceous Disinfection Byproduct Precursors in Coastal Watersheds," *Science of the Total Environment*, **705**, 135783 (2020).
33. Beita-Sandi, W. and Karanfil, T. "Effect of Bromide on NDMA Formation during Chloramination of Model Precursor Compounds and Natural Waters," *Water Research*, **170**, 115323 (2020).
34. Soyluoglu, M., Ersan, M.S., Ateia, M. and Karanfil, T. "Removal of Bromide from Natural Waters: Bromide-Selective vs. Conventional Ion Exchange Resins," *Chemosphere*, **238**, 124583 (2020).
35. Ateia, M., Alsbaiee, A., Karanfil, T. and Dichtel, W. "Selective PFAS Removal by Amine-functionalized Sorbents: Critical Review of the Current Literature," *Environmental Science and Technology Letters*, **6**, 12, 688-695 (2019).



Tanju Karanfil, PhD
Curriculum Vitae

36. Majidzadeh, H., Chen, H. Coates, A., Tsai, K-P., Trettin, C., Olivares, C., Uzun, H., Karanfil, T. and Chow, A.T. "Long-term watershed management is an effective strategy to reduce organic matter export and disinfection by-products (DBPs) precursors in source water," *International Journal of Wildland Fire*, **28**, 804-813 (2019).
37. Olivares, C., Zheng, W., Uzun, H., Erdem, C., Majidzadeh, H., Trettin, C., Karanfil, T., Chow, A. "High-Temporal Resolution Optical in-Situ Sensors Capture Dissolved Organic Carbon Dynamics after Wildland Fire in Blackwater Forest Ecosystems," *International Journal of Wildland Fire*, **28**, 761-768 (2019).
38. Ike, I., Karanfil, T., Cho, J. and Hur, J. "Oxidation byproducts from the Degradation of the Dissolved Organic Matter by Advanced Oxidation Processes – A Critical Review," *Water Research*, **164**, 114929 (2019).
39. Ersan, M.S., Liu, C., Amy, G., Plewa, M. and Karanfil, T. "Chloramination of Iodide-Containing Waters: Formation of Iodinated Disinfection Byproducts and Toxicity Correlation of Total Organic Halides of Treated Waters," *Science of the Total Environment*, **697**, 134142 (2019).
40. Ateia, M., Arifuzzaman, Md., Pellizzeri, S., Attia, M., Tharayil, M., Anker, J. and Karanfil, T. "Selective Removal of GenX and Short-Chain Perfluorinated Alkyl Substances from Surface Waters and Wastewaters by Cationic Polymer Hydrogel," *Water Research*, **163**, 114874 (2019).
41. Liu, C., Ersan, M.S., Plewa, M., Amy, G. and Karanfil, T. "Cyanobacterial Organic Matter Extracted from *Microcystis aeruginosa* Serves as an Important Precursor for Iodinated Disinfection Byproducts," *Water Research*, **162**, 115-126 (2019).
42. Sharma, N., Karanfil, T. and Westerhoff, P. "Historical and Future Needs for Geospatial Iodide Occurrence in Surface and Groundwaters of the United States of America," *Environmental Science and Technology Letters*, **6**, 379-388 (2019).
43. Ersan, G., Kaya, Y., Ersan, M.S., Apul, O. and Karanfil, T. "Adsorption and Aggregation Kinetics of Three Classes of Carbonaceous Adsorbents in the Presence of Natural Organic Matter," *Chemosphere*, **229**, 515-524 (2019).
44. Tsai, K-P., Uzun, H., Huan, C., Karanfil, T. and Chow, A. "Control Wildfire-Induced *Microcystis aeruginosa* Blooms by Copper Sulfate: Trade-Offs between Reducing Algal Organic Matter and Promoting Disinfection Byproduct Formation," *Water Research*, **158**, 227-236 (2019).



Tanju Karanfil, PhD
Curriculum Vitae

45. Beita-Sandi, W., Selbes, M., Ersan, M.S. and Karanfil, T. "Release of Nitrosamines and Nitrosamines Precursors from Scrap Tires," *Environmental Science and Technology Letters*, **6**, 251-256 (2019).
46. Ateia, M., Erdem, C.U., Ersan, M.S., Ceccato, M. and Karanfil, T. "Selective Removal of Bromide and Iodide from Natural Waters Using a Novel AgCl-SPAC Composite at Environmentally Relevant Conditions," *Water Research*, **156**, 168-178 (2019).
47. Ateia, M., Morali, A., Tharayil, N. and Karanfil, T. "The Overlooked Short- and Ultrashort-Chain Poly- and Perfluorinated Substances: A Critical Review," *Chemosphere*, **220**, 866-882 (2019).
48. Ersan, G., Apul, O. and Karanfil, T. "Predictive Models for Adsorption of Organic Compounds by Graphene Nanosheets: Comparison with Carbon Nanotubes," *Science of the Total Environment*, **654**, 28-34 (2019).
49. Uzun, H., Kim, D. and Karanfil, T. "Removal of Wastewater and Polymer Derived N-Nitrosodimethylamine Precursors with Integrated Use of Chlorine and Chlorine Dioxide," *Chemosphere*, **216**, 224-233, (2019).
50. Saleh, N., Apul, O., Karanfil, T. "Viewpoint: The Genesis of a New Environmental Concern Cannabinoids in our Water Systems," *Environmental Science and Technology*, **53**, 4, 1746-1747 (2019).
51. Ersan, M., Liu, C., Amy, G. and Karanfil, T. "The Interplay between Natural Organic Matter and Bromide on Bromine Substitution," *Science of the Total Environment*, **646**, 1172-1181, (2019).
52. Ateia, M., Attia, M.F., Maroli, A., Tharayil, N., Alexis, F., Whitehead, D.C. and Karanfil, T. "Rapid Removal of Poly- and Perfluorinated Alkyl Substances by Polyethylenimine-functionalized Cellulose Microcrystals," *Environmental Science and Technology Letters*, **5** (12), 764-769, (2018).
53. Beita-Sandi, W., Selbes, D., Kim, D. and Karanfil, T. "Removal of N-nitrosodimethylamine Precursors by Cation Exchange Resin: The Effects of pH and Calcium," *Chemosphere*, **211**, 1091-1097, (2018).
54. Liu, C., Ersan, M., Plewa, M., Amy, G. and Karanfil, T. "Formation of Regulated and Unregulated Disinfection Byproducts during Chlorination of Algal Organic Matter Extracted from Freshwater and Marine Algae," *Water Research*, **142**, 313-324, (2018).



Tanju Karanfil, PhD
Curriculum Vitae

55. Selbes, M., Beita-Sandi, W., Kim, D., and Karanfil, T. "The Role of Chloramine Species in NDMA Formation," *Water Research*, **140**, 100-109, (2018).
56. Uzun, H., Kim, D., and Karanfil, T. "The Effect of ClO₂ Oxidation on the Deactivation of Wastewater-derived NDMA Precursors," *Science of the Total Environment*, **635**, 1383-1391, (2018).
57. Majidzadeh, H., Uzun, H., Ruecker, A., Miller, D., Vernons, J., Zhang, H., Bao, S., Tsui, M., Karanfil, T., and Chow, A. "Extreme Flooding Mobilized Dissolved Organic Matter from Coastal Forested Wetlands," *Biogeochemistry*, **136**, 293-309 (2017).
58. Liu, C., Olivares, C.I., Pinto, A.J., Lauderdale, C.V., Brown, J., Selbes, M., and Karanfil, T. "The Control of Disinfection Byproducts and Their Precursors in Biologically Active Filtration Processes," *Water Research*, **124**, 630-653, (2017).
59. Linard, E.N., Apul, O., Karanfil, T., van der Hurk, P., and Klaine, S.J. "Bioavailability of Carbon Nanomaterial-adsorbed Polycyclic Aromatic Hydrocarbons to *P. promelas*: Influence of Adsorbate Molecular Size and Configuration," *Environmental Science and Technology*, **51**, 9288-9296, (2017).
60. Ersan, G., Apul, O.G., Perreault, F., and Karanfil, T. "Adsorption of Organic Contaminants by Graphene Nanosheets: A review," *Water Research*, **126**, 385-398, (2017).
61. Tsai, K-P., Uzun, H., Karanfil, T., and Chow, A. "Dynamic Changes of Disinfection Byproduct Precursors following Exposures of *Microcystis aeruginosa* to Wildfire Ash Solutions," *Environmental Science and Technology*, **51**, 8272-8282, (2017).
62. Beita-Sandi, W. and Karanfil, T. "Removal of both N-nitrosodimethylamine and Trihalomethanes Precursors in a Single Treatment using Ion Exchange Resins," *Water Research*, **124**, 20-28, (2017).
63. Ateia, M., Apul, O., Shimizu, Y., Astri, M., Yoshimura, C., and Karanfil, T. "Elucidating Adsorptive Fractions of Natural Organic Matter on Carbon Nanotubes," *Environmental Science and Technology*, **51**, 7101-7110, (2017).
64. Ruecker, A.M., Uzun, H., Karanfil, T., Tsui, M.T., and Chow, A. "Influences of an Extreme Flooding on Disinfection Byproduct Precursors and Water Treatability in a Coastal Black Water River, South Carolina," *Chemosphere*, **188**, 90-98, (2017).
65. Kim, D., Ates, N., Kaplan Bekaroglu, S.S., Selbes, M., and Karanfil, T. "Impact of Combining Chlorine Dioxide and Chlorine on DBP Formation in Simulated Indoor Swimming Pools," *Journal of Environmental Science*, **58**, 155-162 (2017).



Tanju Karanfil, PhD
Curriculum Vitae

66. Temizel, I., Emadian S.M., Di Addario, M., Onay, T., Demirel, B., Copt, N.K., and Karanfil, T., "Effect of Nano-ZnO on Biogas Generation from Simulated Landfills," *Waste Management*, **63**, 18-26, (2017).
67. Chen, C., Apul, O., and Karanfil, T. "Removal of Bromide from Surface Waters Using Silver Impregnated Activated Carbons," *Water Research*, **113**, 223-230, (2017).
68. Uzun, H., Kim, D., and Karanfil, T. "The Removal of N-Nitrosodimethylamine Formation Potentials in Drinking Water Treatment Plants," *Journal of American Water Works Association*, **109**, (6) 15-18 (2017).
69. Selbes, M., Brown, J., Lauderdale. C., and Karanfil, T. "Removal of Selected C- and N-DBP Precursors in Biologically Active Filters," *Journal of American Water Works Association*, **109**, E73-84 (2017).
70. Zeng, T., Glover, C., Marti, E., Gwen, W-C., Karanfil, T., Dickenson, E., and Mitch, W. "Relative Importance of Different Water Categories as Sources of N-Nitrosamine Precursors," *Environmental Science and Technology*, **50**, 13239-13248, (2016).
71. Krasner, S.W., Lee, T.C.F., Westerhoff, P., Fisher, N., Hanigan, D., Karanfil, T., Beita-Sandi, Taylor-Edmonds, L., and Andrews, R. "Granular Activated Carbon Treatment May Result in Higher Relative Genotoxicity in the Presence of Bromide," *Environmental Science and Technology*, **50**, 9583-9591, (2016).
72. Alansari, A., Selbes, M., Karanfil, T., and Amburgey, J. "Removal of Disinfection By-Product Precursors Using Hybrid Coagulation Ceramic Membrane Systems," *Journal of American Water Works Association*, **108**, E513-522 (2016).
73. Selbes, M., Amburgey, J., Peeler, C. Alansari, A., and Karanfil, T. "Evaluation of Seasonal Performance of Conventional and Phosphate Amended Biofilters," *Journal of American Water Works Association*, **108**, E523-532 (2016).
74. Ersan, G., Kaya, Y., Apul, O., and Karanfil, T. "Adsorption of Organic Contaminants by Graphene Nanosheets, Carbon Nanotubes and Granular Activated Carbons under Natural Organic Matter Preloading Conditions," *Science of the Total Environment*, **565**, 811-817, (2016).
75. Sakalliglu, T., Bakirdoven, M., Temizel, I., Demirel, B., Copt, N., Onay C.S., Demirel, C.S.U. and Karanfil, T. "Leaching of Nano-ZnO in Municipal Solid Waste," *Journal of Hazardous Materials*, **317**, 319-326, (2016).



Tanju Karanfil, PhD
Curriculum Vitae

76. Dilek, F., Olmez, G., Yetis, U., and Karanfil, T. "The Environmental Impacts of Iron and Steel Industry: A Life Cycle Assessment Study," *Journal of Cleaner Production*, **130**, 195-201, (2016).
77. Ersan, M., Ladner, D.A., and Karanfil, T. "The Control of N-Nitrosodimethyleamine, Halonitromethane and Trihalomethane Precursors by Nanofiltration," *Water Research*, **105**, 274-281, (2016).
78. Amaral, P., Partland, E., Li, M., Lapolli, F., Mefford, T., Karanfil, T., Ladner, D. "Superfine Powdered Activated Carbon (S-PAC) Coatings on Microfiltration Membranes: Effects of Milling Time on Contaminant Removal and Flux," *Water Research*, **100**, 429-438, (2016).
79. Wang, J.-J., Dahlgren, R., Ersan, M., and Karanfil, T. "Leaching Effects only Partially Explain Temporal Variations of Disinfection Byproduct Precursors in Wildfire Ashes," *Water Research*, **99**, 66-73, (2016).
80. Ersan, G., Apul, O., and Karanfil, T. "Linear solvation energy relationships (LSER) for adsorption of organic compounds by carbon nanotubes," *Water Research*, **98**, 28-38, (2016).
81. Partland, E., Davis, K., Ren, Y., Apul, O., Mefford, O.T., Karanfil, T., and Ladner, D. "Effect of Bead Milling on Chemical and Physical Characteristics of Activated Carbons Pulverized to Superfine Sizes," *Water Research*, **89**, 161-170, (2016).
82. Beita-Sandi, W., Ersan, M.S., Uzun, H. and Karanfil, T. "Removal of N-Nitrosodimethylamine Precursors with Powdered Activated Carbon Adsorption," *Water Research*, **88**, 711-718, (2016).
83. Dulger, M., Sakallioğlu, T., Temizel, I., Demirel, B., Coptý, N.K., Onay, T., Demirel Uyguner, C.S. and Karanfil, T. "Leaching Potential of Nano-scale Titanium Dioxide in Fresh Municipal Solid Waste," *Chemosphere*, **144**, 1567-1572 (2016).
84. Alansari, A., Selbes, M., Karanfil, T. and Amburgey, J. "Optimization of Hybrid-Coagulation Ceramic Membrane Systems," *Journal of American Water Works Association*, **107**, E693-701 (2015).
85. Kim, D., Amy, G. and Karanfil, T. "Disinfection By-Product Formation during Seawater Desalination: A Review," *Water Research*, **81**, 343-355, (2015).



Tanju Karanfil, PhD
Curriculum Vitae

86. Wang, J-J., Dahlgren, R.A., Ersan, M., Karanfil, T. and Chow, A.T. "Wildfire Alters Terrestrial Precursors of Disinfection Byproducts in Drinking Water," *Environmental Science and Technology*, **49**, 5921-5929, (2015).
87. Selbes, M., Yilmaz, O., Khan, A.A. and Karanfil, T. "Leaching of Organic and Inorganic Tire Constituents from Scrap Tires," *Chemosphere*, **139**, 617-623, (2015).
88. Yilmaz, O., Anctil, A. and Karanfil, T. "LCA as a Decision Support Tool for Evaluation of Best Available Techniques (BATs) for Cleaner Production of Iron Casting," *Journal of Cleaner Production*, **105**, 337-347, (2015).
89. Zhou, Y., Apul, O. and Karanfil, T. "Adsorption of Halogenated Aliphatic Contaminants by Graphene Nanomaterials," *Water Research*, **79**, 57-67, (2015).
90. Apul, O., Zhou, Y. and Karanfil T. "Mechanisms and Modeling of Halogenated Aliphatic Contaminant Adsorption of Carbon Nanotubes," *Journal of Hazardous Materials*, **295**, 138-144, (2015).
91. Zhang, X. L., Yang, H. W., Wang, X. M, Xie, Y.F., Karanfil, T. "Trihalomethane Hydrolysis in Drinking Water at Elevated Temperatures," *Water Research*, **78**, 18-27, (2015).
92. Ersan, M.S., Ladner, D. A. and Karanfil, T. "N-Nitrosodimethylamine Precursors Leach from Nanofiltration Membranes," *Environmental Science and Technology Letters*, **2** (3), 66-69, (2015).
93. Linard, E.N., van den Hurk, P., Karanfil, T., Apul, O. and Klaine, S.J. "Influence of Carbon Nanotubes on the Bioavailability of Fluoranthene," *Environmental Toxicology and Chemistry*, **34** (3), 658-666, (2015).
94. Yang, L., Kim, D., Uzun, H., Karanfil T. and Hur, J. "Tracing Trihalomethanes and N-nitrosodimethylamine formation potentials in drinking water treatment plants using fluorescence spectroscopy and parallel factor analysis," *Chemosphere*, **121**, 84-91, (2015).
95. Uzun, H., Kim, D. and Karanfil, T. "Seasonal and Temporal Patterns of NDMA Formation Potentials in Surface Waters," *Water Research*, **69**, 162-172, (2015).
96. Apul, O. and Karanfil T. "Adsorption of Synthetic Organic Contaminants by Carbon Nanotubes: A Critical Review," *Water Research*, **68**, 34-55, (2015).



Tanju Karanfil, PhD
Curriculum Vitae

97. Selbes, M., Kim, D. and Karanfil T. "The effect of pre-oxidation on NDMA formation and the influence of pH," *Water Research*, **66**, 169-179, (2014).
98. Liu, Y.D., Selbes, M., Zeng, C., Zhong, R. and Karanfil, T. "Formation Mechanism of NDMA from Ranitidine, TMA and other Tertiary Amine during Chloramination: A Computational Study," *Environmental Science and Technology*, **48**, 8653-8663, (2014).
99. Yilmaz, O., Can, Z.S., Toroz, I., Dogan, O., Oncel, S., Alp, E., Dilek, F.B., Karanfil, T., and Yetis, U. "Use of Theoretical Waste Inventories in Planning and Monitoring of Hazardous Waste Management Systems: A Case Study of Turkey," *Waste Management and Research*, **32**, 763-771, (2014).
100. Chowdhury, S., Al-Hooshani, K. and Karanfil, T. "Disinfection Byproducts in Swimming Pool: Occurrence, Implications and Future Needs," *Water Research*, **53**, 68-109, (2014).
101. Wang, Q., Apul, O.G., Xuan, P., Luo, F. and Karanfil, T. "Development of 3D QSPR Model for Adsorption of Aromatic Compounds by Carbon Nanotubes: Comparison among Multiple Linear Regression, Artificial Neural Network and Support Vector Machine" *RSC Advances*, **3**, 23924-23934, (2013).
102. Grayson, J., Khan, A.A. and Karanfil, T. "Permeability of Uniform and Mixed Size Tire Chips Under Different Loading Conditions," *Journal of Irrigation & Drainage Engineering*, **139**, (11) 939-946, (2013).
103. Zhang, S. and Karanfil, T. "Applicability of the Linear Solvation Energy Relationships in the Prediction for Adsorption of Aromatic Compounds on Activated Carbons from Aqueous Solutions," *Separation and Purification Technology*, **117**, 111-117, (2013).
104. Lewis, D.O., Ladner, D., and Karanfil, T. "Source Water and Microfiltration Manganese Control Study" *Journal of American Water Works Association*, **105**, (9) E480-E495, (2013).
105. Ellerie, J.R., Apul, O., Karanfil, T. and Ladner, D.A. "Comparing Graphene, Carbon Nanotubes and Superfine Powdered Activated Carbon as Adsorptive Coating Materials for Microfiltration Membranes," *Journal of Hazardous Materials*, **261**, 91-98, (2013).
106. Johnston, T., and Karanfil, T. "Calculating the Greenhouse Gas Emissions of Water Utilities" *Journal of American Water Works Association*, **105**, (7) E363-E371, (2013).



Tanju Karanfil, PhD
Curriculum Vitae

107. Gan, X., Kim, D., and Karanfil, T. "MIEX® Treatment of an Effluent Impacted Stream Water" *Journal of American Water Works Association*, **105**, (5) E195-E206, (2013).
108. Apul, O.G., Wang, Q., Shao, T., Rieck, J.R., and Karanfil, T. "Predictive Model Development for Adsorption of Aromatic Contaminants by Multi-Walled Carbon Nanotubes," *Environmental Science and Technology*, **47**, 2295-2303, (2013).
109. Apul, O.G., Wang, Q., Zhou, Y., and Karanfil, T. "Adsorption of Aromatic Organic Contaminants by Graphene Nanosheets: Comparison with Carbon Nanotubes and Activated Carbon," *Water Research*, **47**, 1648-1654, (2013).
110. Gan, X., Karanfil, T., Kaplan-Bekaroglu, S.S., and Shan, J. "The Control of N-DBP and C-DBP Precursors with MIEX®," *Water Research*, **47**, 1344-1352, (2013).
111. Hong, Y., Song, H., and Karanfil, T. "Formation of Haloacetic Acids from Dissolved Organic Matter Fractions during Chloramination," *Water Research*, **47**, 1147-1155, (2013).
112. Selbes, M., Kim, D., Ates, N. and Karanfil, T. "The Roles of Tertiary Amine Structure, Background Organic Matter and Chloramine Species on NDMA Formation," *Water Research*, **47**, 945-953, (2013).
113. Zhang, S., Shao, T., and Karanfil, T. Pan, B. "The Correlation between Structural Characteristics and Adsorption Affinity of Activated Carbons," *Adsorption*, **18**, 229-238, (2012).
114. Jones, D.B., Song, H. and Karanfil, T. "The Effects of Selected Preoxidation Strategies on Iodinated Trihalomethane Formation and Speciation," *Water Research*, **46**, 5491-5498, (2012).
115. Shan, J., Hu, J., Kaplan-Bekaroglu, S.S., Song, H. and Karanfil, T. "The Effects of pH, Bromide and Nitrite on Halonitromethane and Trihalomethane Formation from Amino Acids and Amino Sugars," *Chemosphere*, **86**, 323-328, (2012).
116. Zhang, S., Shao, T., Kose, H.S., and Karanfil, T. "Adsorption Kinetics of Aromatic Compounds on Carbon Nanotubes and Activated Carbons," *Environmental Toxicology and Chemistry*, **31**, 79-85, (2012).
117. Apul O.G., Shao, T., Zhang, S., and Karanfil, T. "The Impact of Carbon Nanotube Morphology on Phenanthrene Adsorption," *Environmental Toxicology and Chemistry*, **31**, 73-78, (2012).



Tanju Karanfil, PhD
Curriculum Vitae

118. Jones, D.B., Saglam, A., Song, H. and Karanfil, T. "The Impact of Bromide/Iodide Level and Ratio on Iodinated Trihalomethane Formation and Speciation," *Water Research*, **46**, 11-20, (2012).
119. Jones, D.B., Saglam, A., Triger, A., Song, H. and Karanfil, T. "I-THM Formation and Speciation: Preformed Monochloramine versus Prechlorination followed by Ammonia Addition," *Environmental Science and Technology*, **45**, 10429-10437 (2011).
120. Yigit C., Maden G., Disa N., Yilmaz O., Ogutverici, A., Alp E., Unlu K., Gokçay C.F., Dilek F.B., Doğan O., Karanfil T., and Yetis U. "Hazardous Waste Management in Turkey: Current Legislative Requirements and Future Challenges," *Desalination and Water Treatment*, **26**, 152-159, (2011).
121. Zhang, S., Shao, T., and Karanfil, T. "The Effects of Dissolved Natural Organic Matter on the Adsorption of Synthetic Organic Chemicals on Activated Carbons and Carbon Nanotubes," *Water Research* **45**, 1378-1386, (2011).
122. Kanan, A. and Karanfil, T. "The Formation of Disinfection By-products in Indoor Swimming Pools: Contribution from Filling Water Natural Organic Matter and Swimmers Body Fluids," *Water Research*, **45**, 926-932, (2011).
123. Kaplan Bekaroglu, S.S., Yigit, N.O., Karanfil, T., Kitis, M. "The Adsorptive Removal of Disinfection By-Product Precursors in a High-SUVA Water Using Iron Oxide-Coated Pumice and Volcanic Slag Particles," *Journal of Hazardous Materials*, **183**, 389-394, (2010).
124. Zhang, S., Shao, T., Kose, H.S. and Karanfil, T. "Adsorption of Aromatic Organic Compounds by Carbonaceous Adsorbents: A Comparative Study on Granular Activated Carbon, Activated Carbon Fiber, and Carbon Nanotubes," *Environmental Science and Technology*, **44**, 6377-6383, (2010).
125. Song, H., Addison, J.W., Hu, J. and Karanfil, T. "Formation of Halonitromethanes in Wastewater Treatment Plant Effluents," *Chemosphere*, **79**, (2) 174-179, (2010).
126. Padhye, L., Wang, P., Karanfil, T. and Huang, C-H. "Unexpected Role of Activated Carbon in Promoting Transformation of Secondary Amines to N-Nitrosamines," *Environmental Science and Technology*, **44**, 4161-4168 (2010).
127. Hu, J., Song, H., and Karanfil, T. "Comparative Analysis of Halonitromethane and Trihalomethane Formation and Speciation in Drinking Water: The Effects of Disinfectants, pH, Bromide and Nitrite," *Environmental Science and Technology*, **44**, 794-799 (2010).



Tanju Karanfil, PhD
Curriculum Vitae

128. Zhang, S., Shao, T., Bekaroglu-Kaplan, S.S. and Karanfil, T. "Adsorption of Synthetic Organic Chemicals by Carbon Nanotubes: Effects of Background Solution Chemistry," *Water Research*, **44**, (6) 2067-2074 (2010).
129. Hu, J., Song, H., Addison, J.W. and Karanfil, T. "Halonitromethane Formation Potentials in Drinking Waters," *Water Research*, **44**, (1) 105-114 (2010).
130. Zhang, S., Shao, T., Bekaroglu-Kaplan, S.S. and Karanfil, T. "The Impact of Aggregation and Surface Chemistry of Carbon Nanotubes on the Adsorption of Synthetic Organic Compounds," *Environmental Science and Technology*, **43**, 5719-5725 (2009).
131. Song, H., Orr, O., Hong, Y. and Karanfil, T. "Isolation and Fractionation of Natural Organic Matter: Evaluation of Performance of Reverse Osmosis and Impact of Fractionation Parameters," *Environmental Monitoring and Assessment*, **153**, 307-321 (2009).
132. Guo, Y., Kaplan, S. and Karanfil, T. "The Significance of Physical Factors on the Adsorption of Polyaromatic Compounds by Activated Carbons" *Carbon*, **46**, (14) 1885-1891 (2008).
133. Sciera, K; Smink, J., Morse, J., Post, C., Pike, J., English, W., Karanfil, T., Hayes, J., Schlautman, M., Klaine, S. "Impact of Land Disturbances on Aquatic Ecosystem Health: Quantifying the Cascade of Events," *Integrated Environmental Assessment and Management*, **4**, (4) 431-442 (2008).
134. Hur, J., Schlautman, M.A., Templeton, S.R., Karanfil, T., Post, C.J., Goddard, M.A., Smink, J., Klaine, S.J. and Hayes, J.C. "Evaluating the Collective Performance of Construction Best Management Practices at Small-scale Development Sites in an Urbanizing Watershed," *Journal of Soil and Water Conservation*, **63**, (2) 77-90 (2008).
135. Hong, Y., Liu, S., Song, H. Hu, J., Ates, N. and Karanfil, T. "The Effects of Quenching Agents on HAA Determination in Chloraminated Waters," *Journal of American Water Works Association*, **100**, (2) 89-99 (2008).
136. Guo, Y. Yadav, A. and Karanfil, T. "Approaches to Mitigate the Impact of Dissolved Organic Matter on the Adsorption of Synthetic Organic Contaminants by Porous Carbonaceous Adsorbents," *Environmental Science and Technology*, **41**, (22) 7888-7894, (2007).
137. Hong, Y., Liu, S., Song, H. and Karanfil, T. "HAA Formation Pathways and Kinetics during Chloramination," *Journal of American Water Works Association*, **99**, (8) 57-69, (2007).



Tanju Karanfil, PhD
Curriculum Vitae

138. Hur, J., Schlautman, M.A., Karanfil, T., Smink, J., Song, H., Klaine, S.J. and Hayes, J.C. "Influence of Drought and Municipal Sewage Effluents on the Baseflow Water Chemistry of an Upper Piedmont River," *Environmental Monitoring and Assessment*, **132**, 171-187, (2007).
139. Karanfil, T., Dastgheib, S.A. and Mauldin, D. "Exploring Molecular Sieve Capabilities of Activated Carbon Fibers to Reduce the Impact of NOM Preloading on the Trichloroethylene Adsorption," *Environmental Science and Technology*, **40**, (4) 1321-1327, (2006).
140. Dastgheib, S.A. and Karanfil, T. "The Effect of the Physical and Chemical Characteristics of Activated Carbons on the Adsorption Energy and Affinity Coefficient of Dubinin Equation," *Journal of Colloid and Interface Science*, **292**, (2) 312-321, (2005).
141. Karanfil, T., Moro, E.C. and Serkiz, S.M. "Development and Testing of a Silver Chloride-Impregnated Activated Carbon for Aqueous Removal and Sequestration of Iodide" *Environmental Technology*, **26**, (11) 1255-1262, (2005).
142. Cheng, W., Dastgheib, S.A. and Karanfil, T. "Adsorption of Dissolved Natural Organic Matter by Modified Activated Carbons," *Water Research*, **39**, (11) 2281-2290, (2005).
143. Karanfil, T., Erdogan, I. and Schlautman, M.A. "The Impact of Filtrate Turbidity on UV₂₅₄ and SUVA₂₅₄ Determinations," *Journal of American Water Works Association*, **97**, (5) 125-136, (2005).
144. Freedman, D.L., Payauys, A.M. and Karanfil, T. "The Effect of Nutrient Deficiency on Removal of Organic Solvents from Textile Manufacturing Wastewater During Activated Sludge Treatment," *Environmental Technology*, **26**, (2) 179-188, (2005).
145. Tan, Y., Kilduff, J.E., Kitis, M. and Karanfil, T. "Dissolved Organic Matter Removal and Disinfection Byproduct Formation Control Using Ion Exchange," *Desalination*, **176**, 189-200, (2005).
146. Baxley, J.M., Hepplewhite, C. and Karanfil, T. "The Efficiency of the ILUV Oxidation Method for Organic Nitrogen Analysis," *Water Science and Technology: Water Supply*, **4**, (4) 25-32, (2004).



Tanju Karanfil, PhD
Curriculum Vitae

147. Karanfil, T. and Dastgheib, S.A. "Trichloroethylene Adsorption by Fibrous and Granular Activated Carbons: Aqueous Phase, Gas Phase and Water Vapor Adsorption Studies," *Environmental Science and Technology*, **38**, 5834-5841, (2004).
148. Kitis M., Karanfil T. and Kilduff J.E. "The Reactivity of Dissolved Organic Matter for Disinfection By-product Formation," *Turkish Journal of Engineering and Environmental Sciences*, **28**, 167-179, (2004).
149. Dastgheib, S.A. and Karanfil, T. "Adsorption of Oxygen by Heat-treated Granular and Fibrous Activated Carbons," *Journal of Colloid and Interface Science*, **274**, (1) 1-8, (2004).
150. Kilduff, J.E., Mattaraj, S., Wigton, A., Kitis, M. and Karanfil, T. "Effects of Reverse Osmosis Isolation on Reactivity of Naturally Occurring Dissolved Organic Matter in Physicochemical Processes," *Water Research*, **38**, (4) 1026-1036, (2004).
151. Dastgheib, S.A., Karanfil, T. and Chen, W. "Tailoring Activated Carbons for Enhanced Removal of Natural Organic Matter from Natural Waters," *Carbon*, **42**, (3) 547-557, (2004).
152. Karanfil, T., Erdogan, I. and Schlautman, M.A. "Selecting Filter Membranes for Measuring DOC and UV₂₅₄," *Journal of American Water Works Association*, **95**, (3) 86-100, (2003).
153. Murray-Gulde, C., Heatley, J.E., Karanfil, T., Rodgers, J.H. and Myers, J.E. "Performance of a Hybrid Reverse Osmosis-Constructed Wetland Treatment System for Brackish Produced Water," *Water Research*, **37**, (3) 705-713, (2003).
154. Karanfil, T., Schlautman, M.A. and Erdogan, I. "Survey of DOC and UV Measurement Practices with Implications to SUVA Determination" *Journal of American Water Works Association*, **94**, (12) 68-80 (2002).
155. Kitis, M., Karanfil, T. Wigton, A. and Kilduff, J.E. "Probing Reactivity of Dissolved Organic Matter for Disinfection By-Products Formation Using XAD-8 Adsorption and Ultrafiltration Fractionations" *Water Research*, **36**, (15) 3834-3838, (2002).
156. Hoskins, J.S., Karanfil, T. and Serkiz, S.M. "Removal and Sequestration of Iodide by Using Silver Impregnated Activated Carbon," *Environmental Science and Technology*, **36**, (4) 784-789, (2002).



Tanju Karanfil, PhD
Curriculum Vitae

157. Kilduff, J.E. and Karanfil, T. "Trichloroethylene Adsorption by Activated Carbon Preloaded with Humic Substances: Effects of Solution Chemistry," *Water Research*, **36**, (7) 1685-1698, (2002).
158. Kitis, M., Kilduff, J.E. and Karanfil, T. "Isolation of Dissolved Organic Matter (DOM) from Surface Waters Using Reverse Osmosis and Its Impact on the Subsequent Reactivity of DOM to Formation and Speciation of Disinfection By-Products," *Water Research*, **35**, (9) 2225-2234, (2001).
159. Kitis, M., Karanfil, T., Kilduff, J.E., and Wigton, A. "The Reactivity of Natural Organic Matter to Disinfection By-Products Formation and Its Relation to Specific Ultraviolet Absorbance," *Water Science and Technology*, **43**, (2) 9-17 (2001).
160. Karanfil, T., and Kilduff, J.E. "The Role of GAC Surface Chemistry on the Adsorption of Organic Compounds: 1. Priority Pollutants," *Environmental Science and Technology*, **33**, (18) 3217-3224 (1999).
161. Karanfil, T., Kitis, M., Kilduff, J.E., and Wigton, A. "The Role of GAC Surface Chemistry on the Adsorption of Organic Compounds: 2. Natural Organic Matter," *Environmental Science and Technology*, **33**, (18) 3225-3233 (1999).
162. Kilduff, J.E., Karanfil, T., and Weber, W.J., Jr. "Competitive Effects of Non-Displaceable Organic Compounds on Trichloroethylene Uptake by Activated Carbon: I. Thermodynamic Predictions and Model Sensitivity Analyses," *Journal of Colloid and Interface Science*, **205**, (2) 271-279 (1998).
163. Kilduff, J.E., Karanfil, T., and Weber, W.J., Jr. "Competitive Effects of Non-Displaceable Organic Compounds on Trichloroethylene Uptake by Activated Carbon: II. Model Verification and Applicability to Natural Organic Matter," *Journal of Colloid and Interface Science*, **205**, (2) 280-289 (1998).
164. Kilduff, J.E., Karanfil, T., and Weber, W.J., Jr. "Adsorption by GAC Preloaded with Humic Substances: Effects of Molecular Weight," *Journal of American Water Works Association*, **90**, (5) 76-89 (1998).
165. Karanfil, T., Kilduff, J.E., Schlautman, M.A., and Weber, W.J., Jr. "Oxygen Sensitive Sorption of Natural and Synthetic Organic Macromolecules by GAC: Effect of Solution Chemistry," *Water Research*, **32**, 154-164 (1998).



Tanju Karanfil, PhD
Curriculum Vitae

166. Karanfil, T., Kilduff, J.E., Schlautman, M.A., and Weber, W.J., Jr. "Adsorption of Organic Macromolecules by Granular Activated Carbon: 1. The Influence of Molecular Properties Under Anoxic Solution Conditions," *Environmental Science and Technology*, **30**, 2187-2194 (1996).
167. Karanfil, T., Schlautman, M.A., Kilduff, J.E., and Weber, W.J., Jr. "Adsorption of Organic Macromolecules by Granular Activated Carbon: 2. The Influence of Dissolved Oxygen," *Environmental Science and Technology*, **30**, 2195-2201 (1996).
168. Kilduff, J.E., Karanfil, T., Chin, Y.P. and Weber, W.J., Jr. "Adsorption of Natural Organic Polyelectrolytes by Activated Carbon: A High-Performance Size Exclusion Chromatography Study," *Environmental Science and Technology*, **30**, 1336-1343 (1996).
169. Kilduff, J.E., Karanfil, T., and Weber, W.J., Jr. "Competitive Interactions among Components of Humic Acids in GAC Adsorption Systems: Effects of Solution Chemistry," *Environmental Science and Technology*, **30**, 1344-1351 (1996).
170. Karanfil, T., Schlautman, M.A., and Weber, W.J., Jr. "Impacts of Dissolved Oxygen on the Sorption of Humic Substances and the Subsequent Inhibition of *o*-Cresol Uptake by Granular Activated Carbon," *Water Research*, **28**, 1673-1678 (1994).

Conference Proceedings (Peer-Reviewed)

1. Klaine, S.J., Smink, J.A., Pike, J.W., Goddard, M.A., English, W.R., Post, C.J., Schlautman, M.A., Karanfil, T., Hur, J. M., Powell, B.A., Morse, J.C. and Hayes, J.C. "Downstream Impacts of Urbanization in Small Watersheds," Proceedings of 2005 American Water Resources Association Summer Specialty Conference: Institutions for Sustainable Watershed Management, Honolulu, Hawaii, (June 2005).
2. Karanfil, T., Steinhilber, D., and Graef, S.P. "Analysis of Disinfection Difficulties in Three Municipal Water Pollution Control Plants," *Disinfection'98*, Water Environment Federation, Baltimore, Maryland, (April 1998).



Tanju Karanfil, PhD
Curriculum Vitae

Conference Proceedings (Unreviewed and mainly platform presentations)

1. Soyluoglu, M., Ersan, M.S., Ateia, M. and Karanfil, T. "Removal of Bromide from Natural Waters: Bromide-Selective vs. Conventional Ion Exchange Resins," 2019 Water Quality Technology Conference, Dallas, Texas, (November 2019).
2. Beita-Sandi, W., Soyluoglu, M. and Karanfil, T. "Controlling Multiple Constituents in Wastewater Effluents: Duo or Trio Exchange Systems," 2019 Water Quality Technology Conference, Dallas, Texas, (November 2019).
3. Liu, C., Ersan, M.S., Plewa, M.J., Amy, G. and Karanfil, T. "Formation, Speciation and Toxicity of DBPs during Chlorination of Algal Intracellular Organic Matter, *2018 Annual Conference*, American Water Works Association, Las Vegas, Nevada, (June 2018).
4. Uzun, H., Zhang, W., Erdem, C.U., Olivares, C., Coates, A.T., Chow, A. and Karanfil, T. "The Effect of Prescribed Fire on DOC and DBP Precursors in Forested Watersheds," *2017 Annual Conference*, American Water Works Association, Philadelphia, Pennsylvania, (June 2017).
5. Ersan, M.S., Liu, C., Amy, G., Plewa, M., Karanfil, T. "Formation, Speciation and Toxicity of Chlorinated/Brominated/Iodinated DBPs under Chloramination Conditions," *2017 Annual Conference*, American Water Works Association, Philadelphia, Pennsylvania, (June 2017).
6. Beita-Sandi, W. and Karanfil, T. "Simultaneous Control of N-Nitrosodimethylamine and Trihalomethane Precursors with Anion and Cation Exchange Resins," *2017 Annual Conference*, American Water Works Association, Philadelphia, Pennsylvania, (June 2017).
7. Russell, C., Brown, R., Ersan, M., Karanfil, T. and Cornwell D., "Framework for Responding to a Potential Nitrosamine Regulation: Case Study Evaluation," *2016 Water Quality Technology Conference*, Indianapolis, Indiana, (November 2016).
8. Karanfil, T., Uzun, H., Rucker A., Tsui, M. and Chow, A. "Dissolved Organic Matter and Disinfection Byproduct Precursors in Coastal Blackwater Rivers: A Case Study of South Carolina Flooding," *2016 Water Quality Technology Conference*, Indianapolis, Indiana, (November 2016).



Tanju Karanfil, PhD
Curriculum Vitae

9. Uzun, H., Erdem, C.U., Zhang, W., Olivares, C.I., Chow, A. and Karanfil, T. "Can Prescribed Fire Reduce Disinfection By-Product Precursor Loading to Source Water?," *2016 Water Quality Technology Conference*, Indianapolis, Indiana, (November 2016).
10. Wang, J-J., Dahlgren, R., Ersan, M., Chow, A., Karanfil, T. and Chow A. "Short-Term Temporal Variation of Disinfection Byproduct Precursors in Wild-fire Affected Watershed?," *2016 Water Quality Technology Conference*, Indianapolis, Indiana, (November 2016).
11. Krasner, S.W., Lee, T.C.F., Westerhoff, P., Fisher, N., Karanfil, T., Beita-Sandi, W. and Taylor-Edmonds, L. "Impact of GAC on Regulated and Emerging DBPs and Toxicity," *2016 Annual Conference*, American Water Works Association, Chicago, Illinois, (June 2016).
12. Zhang, X., Kim, D. and Karanfil, T. "Impact of Biological Wastewater Treatment on the Reactivity of NDMA Precursors," *2016 Annual Conference*, American Water Works Association, Chicago, Illinois, (June 2016).
13. Uzun, H., Kim, D. and Karanfil, T. "Removal of Wastewater- and Polymer derived NDMA Precursors with Integrated Oxidation Strategies," *2016 Annual Conference*, American Water Works Association, Chicago, Illinois, (June 2016).
14. Selbes, M., Stanford, B., Reinert, A. and Karanfil, T. "NDMA, Chlorate and the Six-Year Review: Managing Risks in Light of Potential Changes to Stage 2 DBP Rule," *2016 Annual Conference*, American Water Works Association, Chicago, Illinois, (June 2016).
15. Russell, C., Ersan, M., Karanfil, T., Brown, R. and Cornwell, D. "Framework for Responding to a Potential Nitrosamine Regulation: Case Study Evaluation," *2016 Annual Conference*, American Water Works Association, Chicago, Illinois, (June 2016).
16. Ersan, M., Liu, C., Amy, G. and Karanfil, T. "The Effects of Halogens on the Formation, Speciation, and Toxicity of Disinfection By-Products in Fresh Waters," *2016 Annual Conference*, American Water Works Association, Chicago, Illinois, (June 2016).



Tanju Karanfil, PhD
Curriculum Vitae

17. Ersan, M., Ladner, D.A. and Karanfil, T. "The Control of NDMA, THM, and HNM Precursors by Nanofiltration," *2015 Annual Conference*, American Water Works Association, Anaheim, California, (June 2015).
18. Partland. E.T., Ren, Y., Apul, O., Karanfil, T., and Ladner, D.A. "Variations of Superfine Activated Carbon Produced by Bead Milling for Trace Organic Contaminant Adsorption," *2014 Water Quality Technology Conference*, New Orleans, Louisiana, (November 2014).
19. Uzun, H., Kim, D., and Karanfil, T. "NDMA FP Control with Chlorine Dioxide and Chlorine Oxidation," *2014 Water Quality Technology Conference*, New Orleans, Louisiana, (November 2014).
20. Karanfil, T., Uzun, H., Kim, D. (invited) "An Overview of NDMA Formation and Seasonal and Temporal Variability of NDMA Formation Potentials in Selected Source Waters," *2014 Annual Conference*, American Water Works Association, Boston, Massachusetts, (June 2014).
21. Alansari, A., Amburgey, J. Selbes, M. and Karanfil, T. "The Effect of Coagulation Pretreatment on the Performance of Ceramic Membranes for US Surface Water Treatment," *2013 Water Quality Technology Conference*, Long Beach, California, (November 2013).
22. Partland. E.T., Crumbley. A.M., Bilhack, C.R., Mefford, O.T., Karanfil, T., and Ladner, D.A. "Interactions of Super-fine Powdered Activated Carbon and Graphene Adsorbents with Microfiltration and Ultrafiltration Membranes," *2013 Water Quality Technology Conference*, Long Beach, California, (November 2013).
23. Selbes, M., Kim, D., and Karanfil, T. "NDMA Formation From Tertiary Amines With Different Functional Groups And The Influence Of Background NOM And Chloramine Species," *Proceedings of 2013 Annual Conference*, American Water Works Association, Denver, CO (June 2013).
24. Uzun, H., Kim, D., and Karanfil, T. "Seasonal Variation Of NDMA Formation Potentials In Source Waters And Control Of NDMA At Drinking Water Treatment Plants," *Proceedings of 2013 Annual Conference*, American Water Works Association, Denver, CO (June 2013)



Tanju Karanfil, PhD
Curriculum Vitae

25. Yigit, C., Yetis, U., Karanfil, T. and Dilek, F.B. "Demir Dokum Endustrisinde Ikincil Kum Geri Kazaniminin Yasam Dongusu Analizi" Proceedings of 5. Ulusal kati Atik Yonetimi Kongresi, Kocaeli, Turkey (May 2013) (in Turkish).
26. Yilmaz, O., Can, Z., Toroz, I., Dogan, O., Oncel, S., Dilek, F., Karanfil, T., Yetis, U. "Applicability of Waste Generation Factors in Estimation of Hazardous Waste Generation," 28th International Conference on Solid Waste Technology and Management, Philadelphia, PA (March 2013).
27. Amburgey, J., Alansari, A.Y., Selbes, M. and Karanfil, T. "Coagulation-Ceramic Membrane Filtration Process For U.S. Surface Water Treatment: The Effects Of Coagulation On Membrane Fouling," *Proceedings of 2012 Water Quality Technology Conference*, American Water Works Association, Toronto, CA (November 2012).
28. Gan, X. and Karanfil, T. "Control of C-DBP and N-DBP Precursors with MIEX in Drinking Water Treatment and Wastewater Reclamation," *Proceedings of 2012 Annual Conference*, American Water Works Association, Dallas, TX (June 2012).
29. Gan, X. and Karanfil, T. "Removal of C-DBP and N-DBP Precursors with MIEX in the Treatment of an Effluent Impacted Stream Water," *Proceedings of 2012 Annual Conference*, American Water Works Association, Dallas, TX (June 2012).
30. Maden, G., Dilek, F.B., Karanfil, T. and Yetis, U. "The Environmental Impact of Turkish Iron and Steel Industry: A Life Cycle Assessment Study," *Proceedings of International Conference on Recycling and Reuse*, Istanbul, Turkey (June 2012).
31. Yigit, C., Dilek, F.B., Karanfil, T. and Yetis, U. "Life Cycle Assessment for Spent Foundry Sand Reuse," *Proceedings of International Conference on Recycling and Reuse*, Istanbul, Turkey (June 2012).
32. Lewis, D., Karanfil, T. Waldrop, D. (2012) "OI' Black Water – Source Water Characterization and Manganese Microfiltration Treatment," 2012 South Carolina Environmental Conference, Myrtle Beach, South Carolina, (March 2012).



Tanju Karanfil, PhD
Curriculum Vitae

33. Cakir, N., Olmez, G., Cagin, V., Karanfil, T., Alp, E. and Yetis, U. "Cleaner Production Practices in Iron and Steel Production – A Case Study," *Proceedings of Third International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE 2011)*, Skiathos Island, Greece (June 2011).
34. Yigit, C., Olmez, G., Dilek, F., Karanfil, T. and Yetis, U. "Waste Management in Foundries," *Proceedings of Third International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE 2011)*, Skiathos Island, Greece (June 2011).
35. Selbes, M. and Karanfil, T. "Formation Potential and Speciation of Regulated C-DBPs and Emerging N-DBPs from Selected Amino Acids," *Proceedings of 2011 Annual Conference*, American Water Works Association, Washington, DC (June 2011).
36. Karanfil, T. (invited), Hu, J., Addison, J. and Song, H. "The Formation and Control of Halonitromethanes in Treatment Facilities," *2010 Water Quality Technology Conference*, Savannah, Georgia, (November 2010).
37. Kanan, A. and Karanfil, T. "The Precursors of THM and HAA in Swimming Pools," *2009 Water Quality Technology Conference*, Seattle, Washington, (November 2009).
38. Kaplan Bekaroglu and Karanfil, T. "Control of DBPs with GAC Adsorption for Compliance with the Stage 2 D/DBPR," *2009 Water Quality Technology Conference*, Seattle, Washington, (November 2009).
39. Hu, J., Jones, D., Saglam, A., Song, H., Aurelien, T. and Karanfil, T. "Formation and Control of Emerging Halonitromethanes and Iodo-Trihalomethanes," *2009 Water Quality Technology Conference*, Seattle, Washington, (November 2009).
40. Jones, D., Saglam, A., Song, H., Aurelien, T. and Karanfil, T. "The Reduction of Enhancement of Iodo-trihalomethane (I-THM) Formation from Common Pre-oxidants used in Drinking Water Treatment," *2009 Water Quality Technology Conference*, Seattle, Washington, (November 2009).



Tanju Karanfil, PhD
Curriculum Vitae

41. Zhang, S., Shao, T., Kaplan, S., and Karanfil, T. "Comparing Adsorption of Organic Contaminants by Carbon Nanotubes, Activated Carbon and Activated Carbon Fiber," *2009 Water Quality Technology Conference*, Seattle, Washington, (November 2009).
42. Hu, J., Song, H. Addison, J. and Karanfil, T. "Formation and Control of Halonitromethanes in Treatment Facilities" *Proceedings of 2009 Annual Conference*, American Water Works Association, San Diego, CA (June 2009).
43. Hu, J., Song, H. and Karanfil, T. "Formation and Speciation of Halonitromethanes: the Effects of pH, Bromide and Nitrite," *Proceedings of 2009 Annual Conference*, American Water Works Association, San Diego, CA (June 2009).
44. Jones, D., Saglam, A., Song, H., Aurelien, T. and Karanfil, T. "The Formation and Speciation of Iodo-Trihalomethanes during Monochloramine and Chlorine/Ammonia Disinfection," *Proceedings of 2009 Annual Conference*, American Water Works Association, San Diego, CA (June 2009).
45. Reid, L., Kaplan, S., Selbes, M., Smink, J., Schlautman, M., Karanfil, T. "Nutrient Flushes in Stormwater Runoff from Developing Catchments in an Upper Piedmont Watershed," *Proceedings of 2008 Annual Conference*, American Water Works Association, Atlanta, GA (June 2008).
46. Addison, J., Hu, J., Song, H. and Karanfil, T. "Formation of Halonitromethanes in Wastewater Treatment Plant Effluents," *Proceedings of 2008 Annual Conference*, American Water Works Association, Atlanta, GA (June 2008).
47. Hu, J., Addison, J., Song, H. and Karanfil, T. "Formation of Halonitromethanes during Drinking Water Treatment," *Proceedings of 2008 Annual Conference*, American Water Works Association, Atlanta, GA (June 2008).
48. Kaplan, S.S., Kitis M., and Karanfil T. (in Turkish) "Yokes SUVA Degerlerine Sahip Sulardaki Dogal Organik Maddelerin Yüzeyleri Demir Oksitlerle Kkaplanmis Ppomzalarla Adsorptif Giderimi," 7. Ulusal Çevre Mühendisligi Kongresi, Izmir, TURKEY (October 2007).



Tanju Karanfil, PhD
Curriculum Vitae

49. Kaplan, S.S., Kitis M., and Karanfil T. (in Turkish) "Nano-materyallerin Potansiyel Çevresel Etkileri," 7. Ulusal Çevre Mühendisliği Kongresi, Izmir, TURKEY (October 2007).
50. Cheng, W., Guo, Y., Song, H. and Karanfil, T. "Control of HAA and THM Formation Using Steam-treated Activated Carbons," *Proceedings of 2006 Water Quality Technology Conference*, American Water Works Association, Denver, Colorado (November 2006).
51. Hong, Y., Liu, S., Song, H. and Karanfil, T. "HAA Formation Pathways During Chloramination, and Their Practical Implications" *Proceedings of 2006 Annual Conference*, American Water Works Association, San Antonio, TX (June 2006).
52. Westerhoff, P., Navarro Aragon, J., Karanfil, T., Dastgheib, S.A. and Guo, Y. "Iron-Impregnated GAC Adsorbents for Achieving Multiple Water Quality Goals (Arsenic Removal)," *Proceedings of 2005 Annual Conference*, American Water Works Association, San Francisco, CA (June 2005).
53. Hong, Y., Liu, S., Song, H. and Karanfil, T. "HAA Formation During Chloramination," *Proceedings of 2005 Annual Conference*, American Water Works Association, San Francisco, CA (June 2005).
54. Cheng, W., Karanfil, T., Guo, Y. and Dastgheib, S.A. "Enhanced Removal of Dissolved Organic Matter by Modified Activated Carbons," *Proceedings of 2005 Annual Conference*, American Water Works Association, San Francisco, CA (June 2005).
55. Hur, J., Schlautman, M.A., Karanfil, T., Smink, J.E., Klaine, S. and Hayes, J. "Impact of Urban Activities and Wastewater Treatment Plants Effluents on the Water Chemistry of the Reedy River under Low Flow Conditions," *Proceedings of 2005 South Carolina Environmental Conference*, Myrtle Beach, South Carolina (March 2005).
56. Karanfil, T. "The Impact of Temporal Variability in Water Quality on the Formation of Disinfection By Products in SJWD Water Sources," *Proceedings of 2005 South Carolina Environmental Conference*, Myrtle Beach, South Carolina (March 2005).



Tanju Karanfil, PhD
Curriculum Vitae

57. Karanfil, T., Erdogan, I. and Schlautman, M.A. "The Effect of Filtration on DOC and UV254 Determinations," *Proceedings of 2004 Water Quality Technology Conference*, American Water Works Association, San Antonio, Texas (November 2004).
58. Hepplewhite, C., Smith, J. and Karanfil, T. "A Simple Technique to Measure the Organic Nitrogen Concentrations in Natural Water Samples via UV Oxidation of Nitrogenous Organic Compounds," *Proceedings of Natural Organic Material Research: Innovations and Applications for Drinking Water*, Victor Harbor, South Australia, March 2-4, 2004.
59. Hepplewhite, C., Hong, Y. and Karanfil, T. "The Isolation and Fractionation of Organic Carbon and Nitrogen From Water: A Complete Mass Balance," *Proceedings of Natural Organic Material Research: Innovations and Applications for Drinking Water*, Victor Harbor, South Australia, March 2-4, 2004.
60. Kitis M. ve Karanfil T. "İçme Suyu Arıtımında Dezenfeksiyon Yan Ürünleri Oluşumunun Suyun Spesifik Ultraviyole Absorbansı ile Tesbiti," Turkey Environmental Protection Symposium IV, Kocaeli, Istanbul, TURKEY (October 2003). (in Turkish)
61. Erdogan, I., Karanfil, T. and Schlautman, M.A. "Evaluation of Filter Mem-branes for DOC and UV254 Measurements," *Proceedings of 2003 Annual Conference*, American Water Works Association, Anaheim, CA (June 2003).
62. Dastgheib, S., Karanfil, T. and Cheng, W. "Enhanced Uptake of Natural Organic Matter by Modified Granular Activated Carbons," *Proceedings of 2003 Annual Conference*, American Water Works Association, Anaheim, CA (June 2003).
63. Srivastava, R., Kilduff, J.E., Karanfil, T. "The Influence of Activated Carbon Surface Chemistry and Pore Structure on Uptake of Trichloroethylene from Aqueous Solution and Competition from Natural Organic Matter," *Proceedings of 6th International Symposium on Characterization of Porous Solids*, Alicante, SPAIN, (May 2002).
64. Kitis, M., Karanfil, T. and Kilduff, J.E. "The DBP Reactivity Profiles," *Proceedings of 2001 Water Quality Technology Conference*, American Water Works Association, Nashville, Tennessee, (November 2001).



Tanju Karanfil, PhD
Curriculum Vitae

65. Freedman, D.L., Murdoch, L.C., Karanfil, T., DeVol, T.A., Schank, A. and Drumm, L., "Evaluation of Reactive Barrier Materials for In-Situ Treatment of Trichloroethylene and Technecium-99," *Proceedings of 2001 Annual Conference*, Water Environment Federation, Atlanta, Georgia, (October 2001).
66. Karanfil, T., Erdogan, I., Schlautman, M.A., Kilduff, J.E., Onay, T. "Macro-molecular Adsorption of Activated Carbons and Carbon Fibers," *Proceedings of 2001 Annual Conference*, American Water Works Association, Washington, D.C., (June 2001).
67. Rombardo, F. and Karanfil, T. "Formation and Speciation of Disinfection By-Products in the Presence of Chlorine and Chloramines," *Proceedings of 2001 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2001).
68. Karanfil, T. and Kitis, M. (invited) "Formation and Control of Disinfection By-Products During Drinking Water Treatment Operations," *Proceedings of 1st National Environmental Pollution Control Symposium*, Ankara, TURKEY, (October 2000).
69. Kitis, M., Karanfil, T., Kilduff, J.E. and Wigton, A., "Probing the Reactivity of Natural Organic Matter to Disinfection By-Product Formation Using Different Separation Processes" *Proceedings of 2000 Annual Conference*, American Water Works Association, Denver, Colorado, (June 2000).
70. Kilduff, J.E., Wigton, A., Kitis, M. and Karanfil, T., "Preloading of GAC by Natural Organic Matter: Effect of Surface Chemistry on TCE Uptake" *Proceedings of 2000 Annual Conference*, American Water Works Association, Denver, Colorado, (June 2000).
71. Baiden, L. H., Steinhilber, D. and Karanfil, T., "Investigation of Disinfection Difficulties in Three Municipal Wastewater Treatment Plants" *Proceedings of 2000 South Carolina Environmental Conference*, South Carolina, (March 2000).
72. Kilduff, J.E., Wigton, A., Kitis, M. and Karanfil, T. "Trichloroethylene Uptake by Activated Carbon Preloaded with Natural Organic Matter: Effects of Carbon Surface Acidity" *Proceedings of 1999 Thirty first Mid-Atlantic Industrial and Hazardous Waste Conference*, Connecticut, (June 1999).



Tanju Karanfil, PhD
Curriculum Vitae

73. Sawyer, D., and Karanfil, T. "Optimization of a Textile Wastewater Treatment Plant: Pilot- and Full-Scale Experiences," *Proceedings of 1999 WEF/IWPCA/ Purdue University Industrial Wastes Technical Conference*, Indianapolis, Indiana, (June 1999).
74. Suber, S.H., and Karanfil, T. "Factor Affecting the Determination of SUVA Values in Natural Waters," *Proceedings of 1999 Annual Conference*, American Water Works Association, Chicago, Illinois, (June 1999).
75. Karanfil, T., Kilduff, J.E., and Kitis, M. "Removal of DBP Precursors and Synthetic Organic Chemicals from Water Supplies: The Role of GAC Surface Chemistry," *Proceedings of 1998 Annual Conference*, American Water Works Association, Dallas, Texas, (June 1998).
76. Karanfil, T., Kilduff, J.E., and Weber, W.J., Jr. "Effects of Preloading on TCE Adsorption Equilibrium and Rate Parameters: Implications for Design," *Proceedings of 1998 Annual Conference*, American Water Works Association, Dallas, Texas, (June 1998).
77. Kilduff, J.E., Karanfil, T., and Weber, W.J., Jr. "Adsorption of TCE by Pre-loaded Activated Carbon: Mechanistic Interpretations," *Proceedings of 1997 Annual Conference*, American Water Works Association, Atlanta, Georgia, (June 1997).
78. Karanfil, T., and Weber, W.J., Jr. "The Effects of Carbon Properties and Solution Chemistry on the Oxygen Sensitivity of Background Organic Materials Sorption by Activated Carbon," *Proceedings of 1995 Annual Conference*, American Water Works Association, Anaheim, California, (June 1995).
79. Karanfil, T., Schlautman, M.A., and Weber, W.J., Jr. "The Influence of Dissolved Oxygen on Background Organic Matter Sorption by Granular Activated Carbon," *Proceedings of Water Environment Federation 67th Annual Conference and Exposition*, Water Environment Federation, Chicago, Illinois, (October 1994).



Tanju Karanfil, PhD
Curriculum Vitae

Research Reports

80. Karanfil, T. and Chow, A. "Fuel Reduction Techniques as Effective Forested Watershed Management Practices against Wildfire: Drinking Water Quality Aspects," Clemson University, *Final Report*, National Science Foundation, (January 2020).
81. Amy, G., Karanfil, T. and Plewa, M. "Formation and Toxicity of Disinfection Byproducts in Desalinated Waters," Clemson University, *Final Report*, United States Environmental Protection Agency, Office of Research and Development, Science to Achieve Results Program (October 2019).
82. Karanfil, T. "Formation of Halonitromethanes and Nitrosamines during Ozonation in Drinking Water Treatment," Clemson University, *Final Report*, National Science Foundation, (April 2015).
83. Karanfil, T. "Quantitative Structure-Adsorbability Relationships for the Adsorption of Synthetic Organic Compounds by Carbon Nanotubes," Clemson University, *Final Report*, National Science Foundation, (November 2014).
84. Karanfil, T. "Exploring the Physical Factors and Chemical Interactions Involved in the Adsorption of Synthetic Organic Compounds by Carbonaceous Adsorbents," Clemson University, *Final Report*, National Science Foundation, (September 2011).
85. Karanfil, T. "Development of Novel, Inexpensive, and Selective Carbonaceous Sorbents for Enhanced Removal of Dissolved Organic Matter from Natural Waters," Clemson University, *Final Report*, National Science Foundation, (October 2008).
86. Karanfil, T. "CAREER: Novel Use of Carbon Fibers for Removal of Priority Pollutants from Aqueous Solutions" Clemson University, *Final Report*, National Science Foundation, (October 2007).
87. Karanfil, T., Erdogan, I. and Hong, Y. "Understanding the Reactivity of Natural Organic Matter in the SJWD Water Sources Toward Disinfection By-Product Formation," Clemson University, *Final Report*, SJWD Water District, (March 2005)



Tanju Karanfil, PhD
Curriculum Vitae

Research Reports continued

88. Karanfil, T. and Kilduff, J.E. "Tailoring Activated Carbon Surfaces for Water, Wastewater and Hazardous Waste Treatment and Recovery Operations," Clemson University, *Final Report*, United States Environmental Protection Agency, Office of Research and Development, Science to Achieve Results Program, (October 2004).
89. Kilduff, J.E. and Karanfil, T. "Brominated Disinfection By-Product Formation and Speciation Based on Specific UV Absorbance Distribution of Natural Waters," Rensselaer Polytechnic Institute, *Final Report*, United States Environmental Protection Agency, Office of Research and Development, Science to Achieve Results Program, (September 2004).
90. Karanfil, T., and Perez, G. "Water Quality Characterization in SJWD Reservoirs: October 1997 – June 1998," Clemson University, *Final Report*, SJWD Water District, (November 1998).
91. Weber, W. J., Jr., Kilduff, J.E., Karanfil, T., Carter, M.C. and Johnson, M., "Mechanisms of Adsorption of Organic Contaminants by Activated Carbon in the Presence of Organic Macromolecules," University of Michigan, *Final Report*, National Science Foundation, (July 1997).

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences)

92. Zhang, W., Olivares, C., Uzun, H., Erdem, C.U., Trettin, C., Liu, Y., Robinson, E.R, Karanfil, T, and Chow, A.T, "Exports of Dissolved Organic Carbon following Prescribed Fire on Forested Watersheds: Implications for Watershed Management for Drinking Water Supply," 2016 AGU Fall Meeting, San Francisco, California (December, 2016).
93. Zhang, X., Kim, D. and Karanfil, T. "Removal of NDMA Precursors by Activated Sludge Process: Model Compounds and Sewage Components," *2016 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2016).
94. Uzun, H., Ruecker, A.M., Karanfil, T. and Chow, A. "Treatability of Coastal Black River during the Historical Flooding Event in SC," *2016 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2016).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

95. Ersan, M.S., Liu, C., Amy, G. and Karanfil, T. "Formation, Speciation and Toxicity of Disinfection By-Products in Blending Desalinated Seawater and Freshwaters," *2016 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2016).
96. Uzun, H., Kim, D. and Karanfil, T. "Removal of Wastewater- and Polymer-derived NDMA Precursors with Simultaneous Application of Cl_2 and ClO_2 ," *2016 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2016).
97. Erdem, C.U., Zhang, W., Uzun, H., Olivares, C.L., Chow, A. and Karanfil, T. "Forest Fire and Drinking Water Quality: Forest Management Reduces THM and HAA Formation," *2016 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2016).
98. Raja, P. and Karanfil, T. "The Effect of Heating on Iodinated Trihalomethanes, Halonitormethanes, and Nitrosamines," *2015 Annual Conference*, American Water Works Association, Anaheim, California, (June 2015).
99. Uzun, H., Kim, D. and Karanfil, T. "Control of NDMA Precursors with Chlorine Dioxide Oxidation," *2015 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2015).
100. Ersan, M.S., Ladner, D.A. and Karanfil, T. "Reducing the Formation of Disinfection By-Products using Nanofiltration Membranes," *2015 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2015).
101. Lauer, J., Selbes, M. and Karanfil, T. "The Use of Oxidants for NDMA Precursor Removal in Wastewater," *2015 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2015).
102. Raja, P. and Karanfil, T. "The Effect of Heating on Disinfection By-Products and Genotoxicity," *2015 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2015).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

103. Chen, C. and Karanfil, T. "Bromide Removal from Surface Waters by Silver Impregnated Activated Carbon," *2015 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2015).
104. Yilmaz, O., Anctil, A., and Karanfil, T. "Comparison of Embodied Energy of Carbon Nanotubes and Powdered Activated Carbon for Potable Water Treatment," the SETAC Europe LCA Case Study Symposium in Novi Sad, Serbia, (November 2014).
105. Apul, O., Zhou, Y. and Karanfil, T. "Adsorption of Organic Contaminants by Graphene Nanosheets: Comparison with Carbon Nanotubes and Activated Carbon," 248th National Meeting of American Chemical Society in San Francisco, California, Division of Environmental Chemistry, (August 2014).
106. Selbes, M., Kim, D. and Karanfil, T. "Chloramine Species Importance in NDMA Formation," 248th National Meeting of American Chemical Society in San Francisco, California, Division of Environmental Chemistry, (August 2014).
107. Uzun, H., Kim, D. and Karanfil, T. "Temporal Patterns of NDMA Precursor Removal at Drinking Water Treatment Plants," 248th National Meeting of American Chemical Society in San Francisco, California, Division of Environmental Chemistry, (August 2014).
108. Selbes, M., Kim, D. and Karanfil, T. "The Effects of Pre-Oxidation on NDMA Formation," 248th National Meeting of American Chemical Society in San Francisco, California, Division of Environmental Chemistry, (August 2014).
109. Liu, Y., Selbes, M., Zheng, C., Zhong, R. and Karanfil, T. "Formation Mechanism of NDMA from Ranitidine, TMA, and other Tertiary Amines during Chloramination: A Computational Study," 248th National Meeting of American Chemical Society in San Francisco, California, Division of Environmental Chemistry, (August 2014).
110. McGuire, M.J., Karanfil, T., Krasner, S.W., Reckhow, D.A., Roberson, J.A., Summers, R.S., Westerhoff, P.A., and Xie, Y.F. "Not Your Granddad's Disinfection By-Product Problems and Solution," *Journal of American Water Works*, **106** (8), 54-73 (2014).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

111. Beita-Sandi, W. and Karanfil, T. "Removal of NDMA and THM Precursors with PAC," *2014 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2014).
112. Ersan, M.S., Ladner, D.A. and Karanfil, T. "The Release of NDMA Precursors from Nanofiltration Membranes and Their Cleaning," *2014 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2014).
113. Ersan, G., Ersan, M.S., and Karanfil, T. "Adsorption Kinetics of TCE by Graphene Nanosheets and GAC under Different NOM Preloading and Simultaneous Adsorption Conditions," *2014 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2014).
114. Selbes, M., Amburgey, J. and Karanfil, T. "Removal of DBP Precursors through Biologically Active Filters," *2014 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2014).
115. Chen, C. and Karanfil, T. "Bromide Removal by Silver Impregnated Activated Carbon," *2014 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2014).
116. Bakkaloglu, S. and Karanfil, T. "Superfine Powdered Activated Carbon Adsorption of Synthetic Organic Compounds," *2014 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2014).
117. Sakallioğlu, E.T., Dulger, M., Demirel, C.U., Demirel, B., Onay, T., Coptý, N.K., and Karanfil T. "Leaching Behaviour of Titanium Dioxide Nanomaterials in Municipal Solid Waste," *2014 SETAC 24th Annual Meeting*, Basel, Switzerland, (March 2014).
118. Olmez, G., Dilek, F.B., Karanfil, T. and Yetis, U. "The Environmental Impacts of Iron and Steel Industry: A Life Cycle Assessment Study," *SDEWES 2014: 9th Conference on Sustainable Development of Energy, Water and Environment Systems*, Venice, ITALY (September 2013).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

119. Yilmaz, O., Can, Z.S., Toroz, I., Dogan, O., Oncel, S., Alp, E., Dilek, F.B., Karanfil, T., and Yetis, U. "Use of Theoretical Waste Inventories in Planning and Monitoring of Hazardous Waste Management Systems: A Case Study of Turkey SDEWES 2014: 9th Conference on Sustainable Development of Energy, Water and Environment Systems, Venice, ITALY (September 2013).
120. Yilmaz, O., Anctil, A. and Karanfil, T. "Potential of LCA as a Decision Support Tool for Cleaner Production Practices: Iron Casting" LCAA XIII, Orlando, FL (September 2013).
121. Apul, O. and Karanfil, T. "Adsorption of Synthetic Organic Contaminants by Carbonaceous Nanomaterials," 2013 AEESP Annual Meeting, Golden, CO (July 2013).
122. Apul, O. and Karanfil, T. "Evaluation of Carbonaceous NanoAdsorbents for Adsorption of Synthetic Organic Contaminants," 2013 Gordon Research Conference, Stowe, VT (June 2013).
123. Uzun, H., Kim, D., and Karanfil, T. "NDMA formation Potentials in Sources and Control at Drinking Water Treatment Plants," Istanbul International Solid Waste, Water, and Wastewater Congress 2013, Istanbul, Turkey (June 2013).
124. Apul, O. and Karanfil, T. "Evaluation of Alternative Carbon Adsorbents for Water Treatment: A Comparison of Activated Carbon, Carbon Nanotubes and Graphene Nanosheets," 2013 South Carolina Environmental Conference, Myrtle Beach, South Carolina, (March 2013).
125. Selbes, M. and Karanfil, T. "Preoxidation Strategies for Amines to Minimize NDMA Formation," 2013 South Carolina Environmental Conference, Myrtle Beach, South Carolina, (March 2013).
126. Yang, Z. and Karanfil, T. "Adsorption of Aliphatic Organic Contaminants by Graphene Materials," 2013 South Carolina Environmental Conference, Myrtle Beach, South Carolina, (March 2013).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

127. Zhang, B. and Karanfil, T. "Removal of TiO₂ Nanoparticles by Conventional Water Treatment Processes," *2013 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2013).
128. Beita-Sandi, W., Ersan, M.S. and Karanfil, T. "Removal of NDMA and THM Precursors Using Powdered Activated Carbon," *2013 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2013).
129. Ersan, G. and Karanfil, T. "The Effect of Natural Organic Matter Characteristics on the Adsorption of Organic Contaminants by Graphene Nanosheets, Carbon Nanotubes and Granular Activated Carbons," *2013 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2013).
130. Selbes, M., Kim, D., Ates, N. and Karanfil, T. "Importance of Tertiary Amine Structure on NDMA Formation and Effect of Background Matrix and Chloramine Species," *2012 Gordon Research Conference*, Mount Holyoke, MA (August 2012).
131. Uzun, H., Kim, D., Ates, N. and Karanfil, T. "NDMA Precursors in Source Waters and Water Treatment Plants," *2012 Annual Conference, American Water Works Association*, Dallas, TX (June 2012).
132. Kanan, A. and Karanfil, T. "The Contribution of Filing Water Natural Organic Matter and Body Fluids to the Formation of Different Classes of Disinfection By-Products in Swimming Pool," *Pool's 12, International Workshop on Swimming Pool Research*, Delft, Netherland (April 2012).
133. Kanan, A. and Karanfil, T. "Swimming Pool Operation Parameters Effect on Disinfection By-Products Formation," *Pool's 12, International Workshop on Swimming Pool Research*, Delft, Netherland (April 2012).
134. Apul, O., Wang, Q., Rieck, J.R. and Karanfil, T. "A Predictive Model Development for Adsorption of Organic Contaminants by Carbon Nanotubes," *Carbon for Energy Application Workshop*, Stone Mountain, Georgia (March 2012).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

135. Wang, Q., Apul, O., Xuan, P., Luo, F., Rieck, J.R. and Karanfil, T. "Statistical Analysis in 3D QSPR Model Development for Organic Compound Adsorption onto CNTs," Carbon for Energy Application Workshop, Stone Mountain, Georgia (March 2012).
136. Apul, O., Wang, Q., Rieck, J.R. and Karanfil, T. "QSAR and LSER Model Development for Adsorption of Organic Contaminants by Carbon Nanotubes," 243rd National Meeting of American Chemical Society in San Diego, California, Division of Environmental Chemistry, Extended Abstracts and Program, (March 2012).
137. Wang, Q., Apul, O., Xuan, P., Luo, F., Rieck, J.R. and Karanfil, T. "3D QSAR Model Development for the Adsorption of Multiwall Carbon Nanotubes: Comparison Among Multiple Linear Regression, Artificial Neural Network, and Support Vector Machine," 243rd National Meeting of American Chemical Society in San Diego, California, Division of Environmental Chemistry, Extended Abstracts and Program, (March 2012).
138. Selbes, M., Kim, D., Ates, N. and Karanfil, T. "The Effect of Tertiary Amine Structure on NDMA Formation," 2012 South Carolina Environmental Conference, Myrtle Beach, South Carolina, (March 2012).
139. Uzun, H., Kim, D., Ates, N. and Karanfil, T. "NDMA Precursors in Source Waters and Water Treatment Plants," 2012 South Carolina Environmental Conference, Myrtle Beach, South Carolina, (March 2012).
140. Gan, X., Kaplan-Bekaroglu, S., Shan, J. and Karanfil, T. "Control of Emerging Disinfection By-Products using MIEEX in South Carolina Surface Water and Effluent Impacted Waters," 2012 South Carolina Environmental Conference, Myrtle Beach, South Carolina, (March 2012).
141. Yu, M., Kim, D. and Karanfil, T. "The Effect of Temperature on the Formation of Disinfection By-Products," 2012 South Carolina Environmental Conference, Myrtle Beach, South Carolina, (March 2012).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

142. Johnston, T., Rieck, J., and Karanfil, T. "Evaluating the Energy Use and Greenhouse Gas Emissions of Water Utilities," *2011 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2011).
143. Gan, X. and Karanfil, T. "Removal of C-DBP and N-DBP Precursors with MIEEX in Drinking Water Treatment," *2011 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2011).
144. Lewis, D. and Karanfil, T. "Manganese in the Middle Tyger River," *2011 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2011).
145. Apul, O., Wang, Q., Rieck, J.R. and Karanfil, T. "Predictive Model Deveopment for Adsorption of Organic Contaminants by Carbon Nanotubes," 243rd National Meeting of American Chemical Society in San Diego, California, Division of Environmental Chemistry, Extended Abstracts and Program, (March 2012).
146. Wang, Q., Apul, O., Xuan, P., Luo, F., Rieck, J.R. and Karanfil, T. "3D QSAR Model Development for the Adsorption of Multiwall Carbon Nanoubes: Comparison Among Multiple Linear Regression, Artificial Neural Network, and Support Vector Machine," 243rd National Meeting of American Chemical Society in San Diego, California, Division of Environmental Chemistry, Extended Abstracts and Program, (March 2012).
147. Selbes, M. and Karanfil, T. "Formation Potential and Speciation of Regulated C-DBP and Emerging N-DBPs from Selected Amino Acids," *2011 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2011).
148. Apul, O. and Karanfil, T. "Adsorption of Organic Contaminants by Carbon Nanotubes," *2011 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2011).
149. Shao, T., Zhang, S., and Karanfil, T., "Application of Carbon Nanotubes for Removal of Organic Chemicals from Water," *Environmental Effects of Nanoparticles and Nanomaterials: 2010*, (August 2010).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

150. Zhang, S., Shao, T. and Karanfil, T. "Adsorption Site Analysis for Carbonaceous Adsorbents," Carbon2010, Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, (July 2010).
151. Zhang, S., Shao, T. and Karanfil, T. "An Empirical Equation to Relate the Adsorption Affinity and Structural Characteristics of Carbonaceous Adsorbents," Carbon2010, Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, (July 2010).
152. Shao, T., Zhang, S. and Karanfil, T. "Adsorption of Organic Chemicals on Carbon Nanotubes in Aquatic Environment," Carbon2010, Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, (July 2010).
153. Shao, T., Zhang, S. and Karanfil, T. "Are Carbon Nanotubes Promising Adsorbents for Water Treatment," Carbon2010, Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, (July 2010).
154. Kose, S., Zhang, S. and Karanfil, T. "Pore Structure and Adsorption Affinity of Activated Carbon," Carbon2010, Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, (July 2010).
155. Kose, S., Zhang, S. and Karanfil, T. "Surface Chemistry and Adsorption Affinity of Activated Carbon," Carbon2010, Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, (July 2010).
156. Zhang, S., Shao, T., Kaplan, S., and Karanfil, T. "The Role of Aggregation in the Adsorption Behaviors of Carbon Nanotubes," 2009 AIChE National Meeting, Nashville, Tennessee, (November 2009).
157. Zhang, S., Shao, T., Kaplan, S., and Karanfil, T. "Aggregation and Adsorption Properties of Carbon Nanotubes in Aquatic Environments," *International Conference on Particle Separations and Nanoparticles in Water*, Durham, North Carolina, (June 2009).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

158. Karanfil, T. (invited) "Suggestions for Giving Successful Presentations at Conferences" *2009 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2009).
159. Kaplan Bekaroglu, S.S. and Karanfil, T. "Control of DBPs with GAC Adsorption for Stage 2 D/DBPR," *2009 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2009).
160. Hu, J. and Karanfil, T. "Exploring Formation and Control of Halonitromethanes in Drinking Water," *2009 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2009).
161. Jones, D. and Karanfil, T. "Formation and Control of Iodo-Trihalomethanes in Drinking Water," *2009 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2009).
162. Kanan, A. and Karanfil, T. "Formation of THM and HAA in Swimming Pools," *2009 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2009).
163. Selbes, M. and Karanfil, T. "Organic and Inorganic Constituent Leaching from Scrap Tires," *2009 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2009).
164. Shao, T. and Karanfil, T. "Influence of Water Quality Factors on the Adsorption of Synthetic Organic Compounds by Single-Wall Carbon Nanotubes," *2009 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, (March 2009).
165. Ahmad, R., Zhang, C., Ahmed, S., Karanfil, T., Kaplan, S., Selbes, M., Begum S. "Literature Review – Physicochemical Processes," *Water Environment Research*, **80** (10), 978-1035 (2008).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

166. Hong, Y., Lui, S. and Karanfil, T. "Understanding DBP Formation during Chloramination," *Florida Water Resources Journal*, **60** (4), 51-53 (2008).
167. Karanfil, T., Selbes, M., Kaplan, S., Zhang, C., Ghosh, S., Ahmed, S., Jeffcoat, S.B., Ahmad, R. "Literature Review – Physicochemical Processes," *Water Environment Research*, **79** (10), 1228-1296 (2007).
168. Hong, Y., Song, H. and Karanfil, T., "Formation of HAA from DOM and DOM Fractions during Chloramination," 233th National Meeting of American Chemical Society in Chicago, Illinois, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 47, no. 1. (March 2007).
169. Yadav, A., Guo, Y., and Karanfil, T., "How to Select Activated Carbons for Controlling the Impact of Dissolved Natural Organic Matter on the Adsorption of Synthetic Organic Compounds," 233th National Meeting of American Chemical Society in Chicago, Illinois, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 47, no. 1. (March 2007).
170. Guo, Y., Karanfil, T., and Inizan, S. "Physical Factors Controlling the Adsorption of Polyaromatic Synthetic Organic Compounds by Carbonaceous Adsorbents," 233th National Meeting of American Chemical Society in Chicago, Illinois, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 47, no. 1. (March 2007).
171. Tan, Y., Kilduff, J.E. and Karanfil, T. "Disinfection By-Product Formation and Speciation in Chlorinated Waters after Anion Exchange Treatment" 233th National Meeting of American Chemical Society in Chicago, Illinois, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 47, no. 1. (March 2007).
172. Guo, Y. and Karanfil, T. "Amination of Activated Carbons for the Removal of Natural Organic Matter From Fresh Waters," 233th National Meeting of American Chemical Society in Chicago, Illinois, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 47, no. 1. (March 2007).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

173. Karanfil, T., Yadav, A., Zhang, C., Ghosh, S., Ahmed, S., Jeffcoat, S.B., Ahmad, R. "Literature Review – Physicochemical Processes," *Water Environment Research*, **78** (10), 1193-1260 (2006).
174. Guo, Y., Dastgheib, S.A. and Karanfil, T. "Removal of Arsenic from Water by Iron-impregnated Activated Carbons," 231th National Meeting of American Chemical Society in Atlanta, Georgia, Division of Fuel Chemistry, Extended Abstracts and Program, Vol. 46, no. 1. (March 2006).
175. Cheng, W., Guo, Y., Song, H., Dastgheib, S.A. and Karanfil, T. "Removal of Dissolved Organic Matter by Steam-Treated Activated Carbons for Disinfection Byproduct Control in Drinking Water Treatment," 231th National Meeting of American Chemical Society in Atlanta, Georgia, Division of Fuel Chemistry, Extended Abstracts and Program, Vol. 46, no. 1. (March 2006).
176. Yadav, A., Guo, Y., Dastgheib, S.A. and Karanfil, T. "Approaches to Control Competitive Adsorption of DOM and SOC y Activated Carbons," 231th National Meeting of American Chemical Society in Atlanta, Georgia, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 46, no. 1. (March 2006).
177. Guo, Y., Dastgheib, S.A. and Karanfil, T. "Surface Chemistry of Nitric Acid-Oxidized Activated Carbons," 231th National Meeting of American Chemical Society in Atlanta, Georgia, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 46, no. 1. (March 2006).
178. Hong, Y., Liu, S., Song, H. and Karanfil, T. "The Role of NH₂Cl and HOCl in the Formation of Haloacetic Acids during Chloramination," 230th National Meeting of American Chemical Society in Washington, D.C., Division of Environmental Chemistry, Extended Abstracts and Program, Vol.45, no. 2. (August 2005).
179. Ahmad, R., Begum, S., Zhang, C., Karanfil, T., Genceli, E.A., Yadav, A. Ahmed, S. "Literature Review – Physicochemical Processes," *Water Environment Research*, **77** (6) 982-1156 (2005).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

180. Ahmad, R., Begum, S., Hoek, E.M.V., Karanfil, T., Genceli, E.A., Yadav, A. Trivedi, P. and Zhang, C. "Literature Review – Physicochemical Processes," *Water Environment Research*, **76** (6) 823-1003 (2004).
181. Dastgheib, S.A. and Karanfil, T. "The Effects of Activated Carbon Physical and Chemical Characteristics on the Adsorption Energy and Affinity Coefficient of Dubinin Equation," Carbon2004, Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, (July 2004).
182. Mauldin, D., Dastgheib, S.A. and Karanfil, T., "Adsorption of Trichloroethylene by Modified Fibrous and Granular Activated Carbons in the Presence of Natural Organic Matter," Carbon2004, Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, (July 2004).
183. Shaikh, Z., Dastgheib, S.A. and Karanfil, T., "Adsorption of Toluene and Aniline by Modified Activated Carbon Fibers," Carbon2004, Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, (July 2004).
184. Chen, W., Dastgheib, S.A. and Karanfil, T., "Exploring Adsorption of Natural Organic Matter from Natural Waters by Surface-Modified Activated Carbon Fibers," Carbon2004, Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, (July 2004).
185. Dastgheib, S.A. and Karanfil, T. "Chemi- and Physi-Sorption of Oxygen by Granular and Fibrous Heat-Treated Activated Carbons," 226th National Meeting of American Chemical Society in New York, New York, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 43, no. 2. (September 2003).
186. Dastgheib, S.A., Karanfil, T. and Mauldin, D. "Trichloroethylene Adsorption by Modified Fibrous and Granular Activated Carbons: An Integration of Aqueous Phase, Gas Phase, and Water Vapor Adsorption Studies," 226th National Meeting of American Chemical Society in New York, New York, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 43, no. 2. (September 2003).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

187. Karanfil, T., Dastgheib, S.A. and Cheng, W. "Modification of Granular Activated Carbons for Enhanced Adsorption of Dissolved Organic Matter: Adsorption Isotherms," 226th National Meeting of American Chemical Society in New York, New York, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 43, no. 2. (September 2003).
188. Dastgheib, S.A. and Karanfil, T. "Modification of Granular Activated Carbons for Enhanced Adsorption of Dissolved Organic Matter: Carbon Preparation and Characterization," 226th National Meeting of American Chemical Society in New York, New York, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 43, no. 2. (September 2003).
189. Karanfil, T. "Tailoring Activated Carbons for Water and Wastewater Treatment Applications," 226th National Meeting of American Chemical Society in New York, New York, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 43, no. 2. (September 2003).
190. Serkiz, S. M., Kanzleiter, K.M., Cumbie, E.E. and Karanfil, T. "Evaluation of Silver-Impregnated Activated Carbons for I-129 and Tc-99 from an Acidic Groundwater," 225th National Meeting of American Chemical Society in New Orleans, Louisiana, Division of Nuclear Chemistry and Technology, Extended Abstracts and Program, (March 2003).
191. Shaban, I.S., Creager, S.E, Karanfil, T. and Navratil, J.D. "Magnetic Filtration/Adsorption for Removal of Arsenic from Drinking Water," 225th National Meeting of American Chemical Society in New Orleans, Louisiana, Division of Industrial and Engineering Chemistry, Extended Abstracts and Program, (March 2003).
192. Hoskins, J.S., Karanfil, T. and Serkiz, S.M. (invited, award presentation) "Removal and Sequestration of Iodide by Using Silver Impregnated Activated Carbon," 224th National Meeting of American Chemical Society in Boston, Massachusetts, Division of Environmental Chemistry, Extended Abstracts and Program, Vol. 42, no. 2. (August 2002).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

193. Serkiz, S. M., Cumbie, E.E., Hoskins, J.S. and Karanfil, T. "Evaluation of Iodide Sequestration Using Silver Impregnated Activated Carbons," 223th National Meeting of American Chemical Society in Orlando, Florida, Division of Nuclear Chemistry and Technology, Extended Abstracts and Program, (April 2002).
194. Sawyer, D. A., Karanfil, T. and Freedman, D.L. "Improvements in the Performance of a Textile Wastewater Treatment Plant: Pilot and Full-Scale Experiences," *Industrial Wastewater*, Water Environment Federation, (2000).
195. Kilduff, J.E. and Karanfil, T. "Control of Natural Organic DBP Precursors and Anthropogenic Organic Pollutants using GAC," *Clearwaters*, New York Water Environment Federation, Vol. **29**, No. 3, 32-39, (1999).
196. Kilduff, J.E., Wigton, A., Kitis, M., and Karanfil, T., "The Effect of Activated Carbon Surface Acidity on Competition Between Natural Organic Matter and Trichloroethylene," 24th Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, (July 1999).
197. Karanfil, T., Kilduff, J.E., Kitis M., and Wigton A. "The Reactivity of NOM for DBP Formation and its Control by GAC adsorption," 217th National Meeting of American Chemical Society in Anaheim, California, Preprints of Papers, 226-229, (March 1999).
198. Karanfil, T., Kilduff, J.E., and Weber, W.J., Jr. "The Role of Surface Characteristics on the Uptake of Organic Macromolecules by GAC," Carbon'97, 23rd Biennial Conference on Carbon, American Carbon Society, Extended Abstracts and Program, Vol. I, 32-33, (July 1997).
199. Karanfil, T., Kilduff, J.E., and Weber, W.J., Jr. "Oxygen Sensitivity of Natural and Synthetic Organic Materials by GAC: Effects of NOM Structure and Solution Chemistry," International National Organic Matter Workshop in Poitiers, FRANCE, Extended Abstracts, 46.1-46.5, (September 1996).



Tanju Karanfil, PhD
Curriculum Vitae

Other Scholarly Publications (including those selected from abstracts or extended abstracts and presented at conferences) continued

200. Kilduff, J.E., Karanfil, T. and Weber, W.J., Jr. "Adsorption of TCE on GAC Preloaded with Humic and Fulvic Acids: Effect of Molecular Size," International National Organic Matter Workshop in Poitiers, FRANCE, Extended Abstracts, 50.1-50.5, (September 1996).
201. Karanfil, T., Kilduff, J.E., and Weber, W.J., Jr. "The Role of GAC Surface Heterogeneity on the Polymerization of Phenols on GAC," 209th National Meeting of American Chemical Society in Anaheim, California, Preprints of Papers, 480-483, (April 1995).
202. Kilduff, J.E., Karanfil, T., Chin, Y.P. and Weber, W.J., Jr. "Adsorption of Humic Substances on Activated Carbon: A High-Performance Size Exclusion Chromatography Study," 209th National Meeting of American Chemical Society in Anaheim, California, Preprints of Papers, 638-641, (April 1995).

PRESENTATIONS (those not listed under publications)

203. Karanfil, T., Uzun, H. and Selbes, M. (invited) "Formation and Control of Emerging Disinfection By-Product: N-Nitrosodimethylamine," King Fahad University, Saudi Arabia, December 29, 2014.
204. Karanfil, T., (invited) "The Workshop on Disinfection By-Product: N-Nitrosodimethylamine," King Fahad University, Saudi Arabia, December 29, 2014.
 - a. Presentation 1: Formation and Health Effects of Disinfection Byproducts
 - b. Presentation 2: Control of Disinfection Byproducts
 - c. Presentation 3: DBP Formation During Seawater Desalination & Implications
 - d. Presentation 4: Disinfection Byproducts Formation in Swimming Pools
205. Karanfil, T. and Selbes, M. (invited) "NDMA, a Chloramination Disinfection By-Product: Its Precursors, Formation and Control," 20th Southeastern Regional Technology Conference, Greenville, South Carolina, January 30-31, 2014.



Tanju Karanfil, PhD
Curriculum Vitae

PRESENTATIONS (those not listed under publications) continued

- 206. Karanfil, T., Uzun, H. and Selbes, H. (invited) “NDMA, a Chloramination Disinfection By-Product: Experiences with SC Utilities,” 20th Southeastern Regional Technology Conference, Greenville, South Carolina, January 30-31, 2014.
- 207. Karanfil T. (invited) “Adsorption of Organic Contaminants by Carbonaceous Adsorbents: From Macro to Nano,” King Abdullah University Science and Technology, Saudi Arabia, May 4, 2013.
- 208. Karanfil, T. (invited) “Occurrence, Formation and Control of N-Nitrosodimethylamine,” King Abdul Aziz University, Saudi Arabia, May 6, 2013.
- 209. Karanfil, T. (invited) “Disinfection By-Products: Occurrence and Toxicity,” SC DHEC 2012 Surface Water Systems Meeting, July 25, 2012.
- 210. Karanfil, T. (invited) “Disinfection By-Products: Experience in the United States,” Tsinghua University Beijing, China, May 30, 2011.
- 211. Karanfil, T. (invited) “Control of Disinfection By-Product Precursors in Water Treatment,” International Symposium: Endocrine Disruptors, Pharmaceutical Compounds and Disinfection By-Products: Which Monitoring and Treatment Solution for Water Utilities, Tsinghua University Beijing, China, May 26-27, 2011.
- 212. Lewis, D. and Karanfil, T. (invited) “Manganese Control Strategies,” Tsinghua University Beijing, China, May 30, 2011, *SC AWWA Partnership for Safe Water Committee Workshop*, Columbia, South Carolina, May 26, 2011.
- 213. Karanfil, T. (invited) “Formation and Control of Disinfection By-Products: an Overview toward Stage 2 D/DBP Rule,” 17th Southeastern Regional Technology Conference, Greenville, South Carolina, January 27-28, 2011.
- 214. Karanfil, T. (invited) “Formation and Control of Disinfection By-Products: Considerations for Applications,” 17th Southeastern Regional Technology Conference, Greenville, South Carolina, January 27-28, 2011.



Tanju Karanfil, PhD
Curriculum Vitae

PRESENTATIONS (those not listed under publications) continued

215. Jones, D.B., Saglam, A., Triger, A., Song, H. and Karanfil, T. "Iodo-Trihalomethane Formation from Pre-oxidation and Chloramination of Waters Containing Bromide and Iodide," American Water Work Association DBP Webcast, April 7, 2010.
216. Karanfil, T. (invited) "UV₂₅₄ Analysis: Recommended Procedures and Guidelines," 20th Annual South Carolina Environmental Conference, Kingston Plantation, Myrtle Beach, South Carolina, March 13-17, 2010.
217. Karanfil, T., Hu, J., Jones, D. and Song, H. "Formation of Halonitromethanes and Iodo-Trihalomethanes at Treatment Facilities," 2009 Gordon Conference on Drinking Water Disinfection By Products, South Hadley, Massachusetts, August 2009.
218. Karanfil, T. (invited) "Formation and Control of Disinfection By-Products," *SC AWWA Partnership for Safe Water Committee Workshop*, Columbia, South Carolina, May 2009.
219. Karanfil, T. (invited) "Formation and Control of Halonitromethanes in Drinking Water Treatment and Wastewater Effluents," Missouri University of Science and Technology, Department of Civil and Environmental Engineering, Rolla, Missouri, April 2008.
220. Karanfil, T. (invited) "Exploring the Formation and Speciation of Halonitromethanes at the Treatment Facilities," Penn State University, Department of Civil and Environmental Engineering, State College, Pennsylvania, October 2007.
221. Karanfil, T., Hong, Y. and Song, H. "Exploring the Formation of Haloacetic Acids During Chloramination," 2006 Gordon Conference on Drinking Water Disinfection By Products, South Hadley, Massachusetts, August 2006.
222. Karanfil, T. (invited) "Selection of Activated Carbons for Drinking (Tap) Water Treatment," Procter and Gamble, Cincinnati, Ohio, January 2006.
223. Karanfil, T. (invited) "Tailoring Activated Carbons and Carbon Fibers for Drinking Water Treatment," Carbons for a Greener Planet Research Frontiers Workshop, The Pennsylvania State University, State Park, Pennsylvania, May 2005.



Tanju Karanfil, PhD
Curriculum Vitae

PRESENTATIONS (those not listed under publications) continued

- 224. Karanfil, T., Dastgheib, S.A. and Mauldin, D. (invited) "Can Activated Carbon Fibers be Used to Minimize Competition between Natural Organic Matter and Small Molecular Weight Organic Chemicals During Water Treatment," WaterCAMPWS Annual Symposium, Atlanta, Georgia, April 2005.

- 225. Hur, J., Schlautman, M.A., Karanfil, T., Smink, J., Klaine, S.J. and Hayes, J.C., 2005. "Impacts of Urban Activities and Wastewater-Treatment Plant Effluents on the Water Chemistry of the Reedy River under Low Flow Conditions," 15th Annual South Carolina Environmental Conference, Kingston Plantation, Myrtle Beach, South Carolina, March 20-25, 2005.

- 226. English, R.W., Smink, J.A., Pike, J.W., Goddard, M.A., Klaine, S.J., Post, C.J., Schlautman, M.A., Karanfil, T., Hur, J.M., Powel, B.A., Morse, J.C., Hayes, J.C. "Response of Macroinvertebrates to Land Use Change in a Small Watershed," (invited) presentation at the *Emerging Issues along Urban/Rural Interfaces: Linking Science and Society Conference*, Atlanta, GA, March 13-16, 2005.

- 227. Schlautman, M.A., Smink, J.A., Pike, J.W., Goddard, M.A., English, R.W., Post, C.J., Klaine, S.J., Karanfil, T., Hur, J.M., Powel, B.A., Morse, J.C., Hayes, J.C. "Impacts of Urbanized and Non-urbanized Land Use On a Downstream Impoundment," (invited) presentation at the *Emerging Issues along Urban/Rural Interfaces: Linking Science and Society Conference*, Atlanta, GA, March 13-16, 2005.

- 228. Klaine, S.J., Smink, J.A., Pike, J.W., Goddard, M.A., English, W.R., Post, C.J., Schlautman, M.A., Karanfil, T., Hur, J. M., Powell, B.A., Morse, J.C. and Hayes, J.C. "Downstream Impacts of Urbanization in Small Watersheds," (invited) presentation at the *Emerging Issues along Urban/Rural Interfaces: Linking Science and Society Conference*, Atlanta, GA, March 13-16, 2005.

- 229. Karanfil, T. (invited) "Activated Carbon and Carbon Fiber Adsorption for Water and Wastewater Treatment Operations," the 2005 Borchardt Conference, The University of Michigan, Ann Arbor, Michigan, February 2005.



Tanju Karanfil, PhD
Curriculum Vitae

PRESENTATIONS (those not listed under publications) continued

- 230. Hayes, J. C., Klaine, S.J., Smink, J. A., English, W. R., Templeton, S., Post, C., Morse, J., Schlautman, M. A, Karanfil, T. "Changing Land Use and the Environment (CLUE)" CSREES National Water Quality Conference, La Jolla, California, February 2005.

- 231. Klaine, S.J., Smink, J. A., Pike, J. W., Goddard, M. A., English, W. R., Post, C., Schlautman, M. A, Karanfil, T., Hur, J. M., Powell, B. A., Morse, J. and J. C. Hayes. "The Impact and Control of Erosion in the Upstate" *Dealing with Dirt* Conference sponsored by Upstate Forever and the Saluda-Reedy Watershed Consortium, Palmetto Exposition Center, Greenville, South Carolina, September, 2004

- 232. Mauldin, D., Dastgheib, S.A. and Karanfil, T. "The Preloading Effect of Natural Organic Matter on the Adsorption of Trichloroethylene by Granular and Fibrous Activated Carbons," 78th ACS Colloid and Surface Science Symposium, Yale University, New Haven, Connecticut, June 2004.

- 233. Dastgheib, S.A. and Karanfil, T. "Exploring the Dependency of Adsorption Energy and Beta Coefficient of the Dubinin-Radushkevich Equation on the Physicochemical Characteristics of Activated Carbons," 78th ACS Colloid and Surface Science Symposium, Yale University, New Haven, Connecticut, June 2004.

- 234. Cheng, W., Dastgheib, S.A. and Karanfil, T. "Selective Removal of Natural Organic Matter From Waters by Treated Activated Carbons," 78th ACS Colloid and Surface Science Symposium, Yale University, New Haven, Connecticut, June 2004.

- 235. Hirsh, S. and Karanfil, T. "Fate of Selected Metals and Analysis of Metal Removal Technologies at a Municipal Wastewater Treatment Plant," *2004 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, 21-24 March 2004.

- 236. Klaine, S. J., Schlautman, M. A., English, W. R., Hayes, J. C., Karanfil, T., Templeton, S. R., Smink, J. A. and Post, C. J. "A Watershed Approach to Characterize the Influence of Land Use Change on Aquatic Resources." Presented at the 24th North America Annual Meeting of the Society of Environmental Toxicology and Chemistry, Austin, TX, November 2003.



Tanju Karanfil, PhD
Curriculum Vitae

PRESENTATIONS (those not listed under publications) continued

- 237. Karanfil, T., Dastgheib, S.A. and Cheng, W. "Tailoring Activated Carbons for Removing Natural Organic Matter from Water Supplies," 2003 AIChE National Meeting, San Francisco, California, 16-21 November 2003.
- 238. Dastgheib, S.A., Karanfil, T. and Mauldin, D. "Trichloroethylene Adsorption by Modified Fibrous and Granular Activated Carbons: An Integration of Aqueous Phase, Gas Phase, and Water Vapor Adsorption Studies," 2003 AIChE National Meeting, San Francisco, California, 16-21 November 2003.
- 239. Schlautman, M.A., Karanfil, T., Hepplewhite, C., Erdogan, I. and Smink, J. "Changing Land Use and the Environment: Abiotic Water Quality Measurements," 2003 South Carolina Environmental Symposium, Myrtle Beach, South Carolina, 15-17 October 2003.
- 240. Karanfil, T. and Kilduff, J.E. (invited) "Activated Carbon Surfaces: Tailoring for Water, Wastewater and Hazardous Waste Treatment," EPA Region 4 Meeting, 10 September 2003.
- 241. Klaine, S. J., Schlautman, M. A., English, W. R., Hayes, J. C., Karanfil, T., Templeton, S. R., Smink, J. A. and Post, C. J. "A Watershed Approach to Characterize the Influence of Land Use Change on Aquatic Resources," American Geophysical Union Chapman Conference on Ecosystem Interactions with Land Use Change, Santa Fe, NM, June 2003.
- 242. Freedman, D.L., Payauys, A. and Karanfil, T. "Enhanced Biotreatment of Textile Manufacturing Wastewater," 2002 South Carolina Environmental Symposium, Myrtle Beach, South Carolina, 6-8 November 2002.
- 243. Karanfil, T. (invited) "Formation and Speciation of THMs and HAAs in the Presence of Chloramine and Chlorine," The 4th *Drinking Water Technology Forum*, The South Carolina and Georgia Sections of the American Water Works Association, Hilton Head Island, South Carolina, 19-20 September 2002.



Tanju Karanfil, PhD
Curriculum Vitae

PRESENTATIONS (those not listed under publications) continued

- 244. Karanfil, T., Schlautman, M.A. and Erdogan, I. "Current Practices for Measuring TOC/DOC and UV Absorbance: Implications for SUVA Determinations," *2002 Annual Conference*, American Water Works Association, New Orleans, Louisiana, 22-26 June 2002.
- 245. Wigton, A., Kilduff, J.E. and Karanfil, T. "Modeling Adsorption Competition Between TCE and NOM Using a Competitive Adsorption Framework," *The Third International Conference on Remediation of Chlorinated and Recalcitrant Compounds*, Monterey, California, 20-23 May 2002.
- 246. Rombardo, F. and Karanfil, T. "The Formation and Speciation of Disinfection By-Products in the Presence of Chlorine and Chloramine," *2002 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, 17-19 March 2002.
- 247. Erdogan, I., Karanfil, T. and Schlautman, M.A. "Selection of Filters for Measurements of Dissolved Organic Carbon (DOC) Concentration and Ultraviolet Absorbance (UV) in Natural Water Samples," *2002 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, 17-19 March 2002.
- 248. Allen, A. and Karanfil, T. "Analysis of ORP-Controlled Disinfection Process at the Pelham Municipal Wastewater Treatment Plant," *2002 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, 17-19 March 2002.
- 249. Srivastava, R., Kilduff, J.E. and Karanfil, T. "The Influence of Surface Chemistry and Competition from Natural Organic Matter on the Uptake of Hazardous Pollutants by Activated Carbon," *New England Water Environment Federation Annual Meeting*, Boston, Massachusetts, 29-31 January 2002.
- 250. Hoskins, J., Karanfil, T., and Serkiz, S. "Evaluation of Iodide Sequestration Using Silver Impregnated Activated Carbon," *Migration' 01*, 8th International Conference on Chemistry and Migration Behavior of Actinide and Fission Products in the Geosphere, 16-21 September 2001, Bregenz, Austria.
- 251. Allen, A. and Karanfil, T. "Analysis of Random Fecal Violations in a Municipal Wastewater Treatment Plant with ORP Control," *2001 South Carolina Environmental Conference*, Myrtle Beach, South Carolina, 14-18 March 2001.



Tanju Karanfil, PhD
Curriculum Vitae

PRESENTATIONS (those not listed under publications) continued

- 252. Karanfil, T. and Kilduff, J.E. "Brominated DBP Formation and Speciation Based on the Specific UV Absorbance Distribution of Natural Waters," USEPA, National Center for Environmental Research, STAR Drinking Water Progress Review Meeting, Silver Spring, Maryland, 22-23 February, 2001.
- 253. Karanfil, T., (invited) "Insight to Formation and Speciation of Disinfection By-Products during Drinking Water Treatment Operations," Bosphorus University, Istanbul, TURKEY, 9 October 2000.
- 254. Karanfil, T., "The Reactivity of Natural Organic Matter for Disinfection By-Product Formation," Quadrangle Conference, Georgia-Tech, 18-20 February 2000.
- 255. Suber, S.H., and Karanfil, T. "The Development of a Protocol for SUVA Measurements in Fresh Waters," 9th South Carolina Environmental Conference, 14-17 March 1999.
- 256. Karanfil, T., (invited) "The Importance of GAC Surface Chemistry on the Adsorption of Priority Pollutants and Natural Organic Matter," Eckenfelder/Brown and Caldwell Seminar Series in Environmental Engineering at the Department of Civil Engineering, Vanderbilt University, 2 November 1998.
- 257. Steinhilber, D., and Karanfil, T. "Disinfection Difficulties in WCRSA Wastewater Treatment Plants," 8th South Carolina Environmental Conference, 18-20 March 1998.
- 258. Kilduff, J.E., Karanfil, T., and Weber, W. J., Jr. "Effects of Surface Properties on the Adsorption of Disinfection By-Product Precursors by GAC," Disinfection By-Products Symposium in Huston, Texas, 20-21 March 1997.
- 259. Johnson, M.D., Karanfil, T., Kilduff, J.E., and Weber, W. J., Jr. "Influence of GAC Preloading on Subsequent TCE Sorption," 18th Midwest Environmental Chemistry Workshop, 7-9 October 1995.



Tanju Karanfil, PhD
Curriculum Vitae

PRESENTATIONS (those not listed under publications) continued

260. Kilduff, J.E., Karanfil, T., and Weber, W.J., Jr. "Blockage of GAC Pores by Dissolved Organic Solutes," 67th Annual Meeting of Water Environment Federation, 17-21 October 1994.
261. Karanfil, T., Schlautman, M.A., and Weber, W. J., Jr. "Oxygen Sensitive Sorption of Background Organic Materials by Granular Activated Carbon," 17th Midwest Environmental Chemistry Workshop, 8-9 October 1994.



Tanju Karanfil, PhD
Curriculum Vitae

4. HONORS AND AWARDS

- South Carolina Excellence in Scientific Research (ESR) Award, South Carolina Academy of Sciences and Governor of South Carolina (2021)
- Scientific and Technological Research Council of Turkey (TUBITAK), Science Special Award in Engineering (2018) – TUBITAK Bilim Özel Odulu – Muhendislik
 - One of the highest scientific achievement awards given in Turkey every year
- Akdeniz University, Environmental Problems and Applications Center, Science Award (2018)
- American Water Works Association, Membrane Treatment Best Paper Award (2016)
 - As the corresponding author of paper “Optimization of Coagulation Pretreatment Conditions in a Ceramic Membrane System” co-authors Meric Selbes (advisee, Ph.D. student) and Amir Alansari and James Amburgey from UNC Charlotte
- Fellow – International Water Association (2015-present)
- Gordon Conference – Disinfection By-Products
 - Discussion Leader 2013
 - Presenter 2015
- American Water Works Association, Academic Achievement Award (2015)
 - As the Research Advisor of M. Selbes, the recipient of 2015 Academic Achievement Award for the Best Doctoral Dissertation First Place Award
- American Water Works Association, Best Advanced Treatment of Water Paper Award (2014)
 - As the corresponding author of paper “Source water and microfiltration plant manganese control study” co-authors Daniel Lewis (advisee, M.Sc. student) and David Ladner
- American Water Works Association, Academic Achievement Award (2014)
 - As the Research Advisor of X. Gan, the recipient of 2014 Academic Achievement Award for the Best Master Thesis First Place Award



Tanju Karanfil, PhD
Curriculum Vitae

- American Water Works Association, Academic Achievement Award (2011)
 - As the Research Advisor of J. Hu, the recipient of 2011 Academic Achievement Award for the Best Doctoral Dissertation First Place Award
- Clemson University, Board of Trustees Award for Faculty Excellence (2011)
- American Water Works Association, Academic Achievement Award (2010)
 - As the Research Advisor of D. Jones, the recipient of 2010 Academic Achievement Award for the Best Master Thesis First Place Award
- American Water Works Association, Academic Achievement Award (2009)
 - As the Research Advisor of J. Addison, the recipient of 2009 Academic Achievement Award for the Best Master Thesis Second Place Award
- American Water Works Association South Carolina Section, Membership Award (2008-2009)
- Clemson University, Board of Trustees Award for Faculty Excellence (2008)
- American Water Works Association, Academic Achievement Award (2007)
 - As the Research Advisor of Y. Hong, the recipient of 2007 Academic Achievement Award for the Best Doctoral Dissertation First Place Award
- Clemson University, Board of Trustees Award for Faculty Excellence (2006)
- Clemson University, College of Engineering and Science, McQueen Quattlebaum Faculty Achievement Award (2005)
- Clemson University, Certificate of Excellence (2004)
- Clemson University, Board of Trustees Award for Faculty Excellence (2003)



Tanju Karanfil, PhD
Curriculum Vitae

- Clemson University, Board of Trustees Award for Faculty Excellence (2002)
- National Science Foundation, Early CAREER Award (2001)
- North Atlantic Treaty Organization (NATO), Ph.D. Fellowship, (1989-1992)
- Istanbul Technical University, Honor Student of Graduating Class of 1988 in Environmental Engineering Division (1988)

Students' Awards

National Awards

- American Water Works Association, 2015 Academic Achievement Award for the Best Doctoral Dissertation Award (Selbes, M, Ph.D. advisee)
- American Water Works Association, 2014 Academic Achievement Award for the Best Master Thesis First Place Award (Gan, X., M.Sc. advisee)
- American Water Works Association, 2011 Academic Achievement Award for the Best Doctoral Dissertation Award (Hu, Jia, Ph.D. advisee)
- American Chemical Society Division of Environmental Chemistry, 2011 Graduate Student Award in Environmental Chemistry, (Shao, Ting, Ph.D. advisee)
- American Water Works Association, 2010 Academic Achievement Award for the Best Master Thesis First Place Award (Jones, Darryl B., M.Sc. advisee)
- Water Environment Federation, 2009 Best Student Paper Award in the Masters Division (Shao, Ting, M.Sc., advisee)
- American Water Works Association, 2009 Annual Conference and Exposition Meeting, Fresh Ideas Poster Competition, Second Place, (Hu, Jia, Ph.D., advisee)
- American Water Works Association, 2009 Academic Achievement Award for the Best Master Thesis Second Place Award (Addison, Jesse A., M.Sc. advisee)



Tanju Karanfil, PhD
Curriculum Vitae

Student National Awards continued

- American Water Works Association, 2009 LARS Ph.D. Scholarship Award (Jones, Darryl B., M.Sc. advisee)
- American Water Works Association, 2007 Academic Achievement Award for the Best Doctoral Dissertation Award (Hong, Ying, Ph.D. advisee)
- American Water Works Association, Annual Conference and Exposition (ACE) Poster Presentation, 2003 Best Poster Award, Third Place (Erdogan, Ilke, M.Sc. advisee)
- American Chemical Society Division of Environmental Chemistry, 2002 Graduate Student Research Paper Award (Hoskins, Jay, M.Sc. advisee)
- American Chemical Society Division of Environmental Chemistry, 2000 Graduate Student Award (Kitis, Mehmet, Ph.D. advisee)

South Carolina State Awards

- Water Environment Federation South Carolina Section, 2015 L.G. Rich Fellowship (Uzun, Habibullah, Ph.D., advisee)
- Water Environment Federation South Carolina Section, 2013 L.G. Rich Fellowship (Apul, Onur, Ph.D., advisee)
- American Water Works Association, 2013 South Carolina Environmental Conference Best Poster Presentation Award (Ersan, Gamze, Ph.D., advisee)
- American Water Works Association, 2012 South Carolina Environmental Conference Best Poster Presentation Award (Uzun, Habibullah, Ph.D., advisee)
- Water Environment Federation South Carolina Section, 2012 A. Ray Abernathy Fellowship (Selbes, Meric, Ph.D., advisee)
- American Water Works Association, 2011 South Carolina Environmental Conference Best Poster Presentation Award (Selbes, Meric, Ph.D., advisee)
- Water Environment Federation South Carolina Section, 2010 L.G. Rich Fellowship (Selbes, Meric, Ph.D., advisee)



Tanju Karanfil, PhD
Curriculum Vitae

Student South Carolina State Awards continued

- American Water Works Association, 2009 South Carolina Environmental Conference Best Poster Presentation Award (Hu, Jia, Ph.D., advisee)
- Water Environment Federation South Carolina Section, 2009 South Carolina Environmental Conference Best Poster Presentation Award (Shao, Ting, M.Sc., advisee)
- Water Environment Federation South Carolina Section, 2009 A. Ray Abernathy Fellowship (Jones, Darryl B., M.Sc. advisee)
- Water Environment Federation South Carolina Section, 2005 A. Ray Abernathy Fellowship (Erdogan, Ilke, M.Sc. advisee)
- Water Environment Federation South Carolina Section, 2003 A. Ray Abernathy Fellowship (Smith, Jacqueline M. advisee)
- Water Environment Federation South Carolina Section, 2001 A. Ray Abernathy Fellowship (Kitis, Mehmet, Ph.D. advisee)



Tanju Karanfil, PhD
Curriculum Vitae

5. SPONSORED RESEARCH

The \$ amounts shown below are the total project amounts, and the \$ amounts in the parentheses are Dr. Karanfil's share in each project. [Total: \$11,323,090]

- "Identifying Effective Farming Practices to Reduce Risks of Per- and Polyfluoroalkyl Substances (PFAS) in Food Crop Production," USDA / National Institute of Food and Agriculture, Co-Principal Investigator, \$499,947 (\$150,000), (2021-2025).
- "Microwave Regeneration of PFAS-Exhausted Granular Activated Carbons," Principal Investigator, \$284,316 (284,316), (2021-2022).
- "Roles of Microplastics in Reclaimed Water – Altering Persistence and Bioavailability of Antimicrobials in Agricultural Soils," USDA / National Institute of Food and Agriculture, Co-Principal Investigator, \$499,885 (\$150,000), (2020-2024).
- "Investigation of Nanobubble Technology for the Removal of MIB and Geosmin from Drinking Water," Principal Investigator, \$200,000 (200,000), (2020-2022).
- "Commercial Scale Production of Activated Carbons from Soy Hulls for the Removal of Heavy Metals and Toxins from Water Sources," Co-Principal Investigator, \$180,000 (\$42,118), (2020-2021).
- "Occurrence of Per- and Polyfluoroalkyl Substances along with their Potential Discharge Sources in Drinking Water Sources in South Carolina," SC Water Resources Center, Principal Investigator, \$131,120 (131,120), (2020-2021).
- "GOALI: Developing an Eco-Genomic Framework for Biofilter Operation," National Science Foundation, Co-Principal Investigator, \$340,216 (\$75,000), (2019-2022).
- "Water Quality Monitoring at the Selected Sites of SJWD Water District "SJWD Water District, Principal Investigator, \$154,686 (\$154,686), (2019-2020).
- Peroxide-producing Microbial Fuel Cells for Space Life Support Systems Applications, NASA EPSCoR, Co-Principal investigator, \$750,000 (\$75,000), (2019-2022).
- "Carbonized Hulls for Water Purification," United Soybean Board, Co-Principal Investigator, \$159,712 (\$47,913), (2018-2019).



Tanju Karanfil, PhD
Curriculum Vitae

- “Fuel Reduction Techniques as Effective Forested Watershed Management Practices against Wildfire: Drinking Water Quality Aspects,” United States Environmental Protection Agency, Office of Research and Development, National Center for Environmental Research and Quality Assurance (NCERQA), Science To Achieve Results (STAR) Grant Program, Principal Investigator, \$1,260,408 (\$630,204), (2015-2019).
- “Formation and Toxicity of Disinfection Byproducts in Desalinated Waters,” National Science Foundation, Co-Principal Investigator, \$339,870 (\$113,290), (2015-2019).
- “Major Sources of Nitrosamine Precursors from Raw Waters and Distribution Systems,” Water Research Foundation, Co-Principal Investigator, \$380,800 (\$110,800), (2012-2016).
- “RAPID: Extreme Flooding Mobilized Natural Organic Matter from Forested Wetlands – Implications of Mercury and Carbon Cycling in Coastal Blackwater Rivers,” National Science Foundation, Co-Principal Investigator, \$49,961 (\$10,000), (2016-2017).
- “Coupling Small-particle Adsorbents with Membranes for Trace Contaminant Removal in Water Treatment,” National Science Foundation, Co-Principal Investigator, \$325,284 (\$130,114), (2012-2015).
- “Supplemental Funding: Quantitative Structure-Adsorbability Relationship for the Adsorption of Organic Chemicals by Carbon Nanotubes,” National Science Foundation, Principal Investigator, \$63,402 (\$63,402), (2013-2014).
- “The Seasonal Patterns of NDMA Formation Potentials in Water Sources and Their Removal at Drinking Water Treatment Plants,” Water Research Foundation, Principal Investigator, \$300,000 (\$300,000), (2012-2016).
- “Formation of Halonitromethanes and Nitrosamines during Ozonation in Drinking Water,” National Science Foundation, Principal Investigator, \$323,857 (\$323,857), (2011-2014).
- “Quantitative Structure-Adsorbability Relationship for the Adsorption of Organic Chemicals by Carbon Nanotubes,” National Science Foundation, Principal Investigator, \$318,249 (\$318,249), (2010-2014).
- “Formation of Disinfection By-Products in Swimming Pools,” Arch Chemicals, Principal Investigator, \$36,000 (\$36,000), (2011).
- “Coagulation-Ceramic Membrane Filtration Process for US Surface Water Treatment: The Effects of Coagulation and Membrane Fouling,” Water Research Foundation, Co-Principal Investigator, \$267,254 (\$20,000), (2010-2013).



Tanju Karanfil, PhD
Curriculum Vitae

- “Control of Iron, Manganese and Disinfection By-Products Prior to Microfilter Membrane System,” SJWD Water District, Principal Investigator, \$30,000 (\$30,000), (2010-2012).
- “Leaching of Inorganic Constituents and Total Organic Carbon from Tires,” South Carolina Department of Transportation through Clemson Asphalt Rubber Technology Services, Co-Principal Investigator, \$50,000 (\$25,000), (2008-2009).
- “Project Continuation Funding: Exploring Formation and Control of Emerging DBPs in Treatment Facilities: Halonitromethanes and Iodo-trihalomethanes,” American Water Works Association Research Foundation, Principal Investigator, \$34,427 (\$34,427), (2009-2010).
- “Exploring the Physical Factors and Chemical Interactions Involved in the Adsorption of Synthetic Organic Compounds by Carbonaceous Adsorbents,” National Science Foundation, Principal Investigator, \$325,000 (\$325,000), (2007-2011).
- “Leaching of Inorganic Constituents and Total Organic Carbon from Tires,” South Carolina Department of Transportation through Clemson Asphalt Rubber Technology Services, Co-Principal Investigator, \$80,000 (\$40,000), (2007-2009).
- “Exploring Formation and Control of Emerging DBPs in Treatment Facilities: Halonitromethanes and Iodo-trihalomethanes,” American Water Works Association Research Foundation, Principal Investigator, \$205,775 (\$205,775), (2007-2009).
- “Arsenic Removal Technologies – Phase I: Aerogel & Iron-Oxide Impregnated Granular Activated Carbon Media,” American Water Works Association Research Foundation, Co-Principal Investigator, \$133,000 (\$20,000), (2004-2006).
- “Development of Novel and Inexpensive Sorbents for Removal of Dissolved Organic Matter from Natural Waters,” National Science Foundation, Principal Investigator, \$355,396 (\$355,396), (2003-2006).
- “Changing Land Use and The Environment,” US Department of Agriculture-NRCS, Co-Investigator, \$1,060,290 (\$106,000), (2005–2007).
- “CAREER: Novel Use of Carbon Fibers for Removal of Priority Pollutants from Aqueous Solutions,” National Science Foundation, Principal Investigator, \$375,000 (\$375,000), (2001-2006).
- “Characterization of Organic Carbon Sources in Lyman Lake,” Startex, Jackson, Wellford and Duncan (SJWD) Water District, Principal Investigator, \$5,000 (\$5,000), (2005).



Tanju Karanfil, PhD
Curriculum Vitae

- “Evaluation of Different Treatment Strategies and Alternatives to Solve Metal Difficulties in a Designated WCRSA Wastewater Treatment Plant,” Western Carolina Regional Sewer Authority, Principal Investigator, \$40,000 (\$40,000), (2003-2005).
- “Exploring the Mechanisms of Dihalogenated Acetic Acid Formation During Chloramination,” American Water Works Association Research Foundation, Principal Investigator, \$218,425 (\$218,425), (2003-2006).
- “DBP Formation Control by Modified Activated Carbons,” American Water Works Association Research Foundation, Principal Investigator, \$179,553 (\$179,553), (2003-2006).
- “Changing Land Use and The Environment,” US Department of Agriculture-NRCS, Co-Investigator, \$810,000 (\$81,000), (2004–2005)
- “Understanding the reactivity of natural organic matter in the SJWD water sources to-ward disinfection by-product formation,” Startex, Jackson, Wellford and Duncan (SJWD) Water District, Principal Investigator, \$10,000 (\$10,000), (2004).
- “Factors Affecting the Determination of SUVA in Fresh and Treated Waters: Development of a Standard Protocol,” American Water Works Association Research Foundation, Principal Investigator, \$ 143,785 (\$107,038), (2001-2004).
- “Changing Land Use and The Environment,” US Department of Agriculture-NRCS, Co-Investigator, \$680,000 (\$68,000), (2003–2004).
- “Tailoring Activated Carbon Surfaces for Water, Wastewater and Hazardous Waste Treatment and Recovery Operations,” United States Environmental Protection Agency, Office of Research and Development, National Center for Environmental Research and Quality Assurance (NCERQA), Science To Achieve Results (STAR) Grant Program, Principal Investigator, \$223,987 (\$127,220), (2000-2004).
- “Brominated DBP Formation and Speciation Based on the Specific UV Absorbance Distribution of Natural Waters,” United States Environmental Protection Agency, Office of Research and Development, National Center for Environmental Research and Quality Assurance (NCERQA), Science To Achieve Results (STAR) Grant Pro-gram, Co-Principal Investigator, \$391,423 (\$160,000), (2000-2004).
- “AWWA-South Carolina Section Graduate Student Research Assistant Fellowship,” Principal Investigator, \$20,000 (\$20,000), (1999-2002).
- “Enhanced Biotreatment of Textile Manufacturing Wastewater,” Hazardous Waste Management Research Fund, Principal Investigator, \$53,170 (\$38,814), (2000-2001).



Tanju Karanfil, PhD
Curriculum Vitae

- “Chemical & Microbial Characterization of Water Quality in SJWD Water Sources: 2000-2001,” Startex, Jackson, Wellford & Duncan Water District, Principal Investigator, \$15,000 (\$15,000), (2000-2001).
- “Technical Assistance to Western Carolina Regional Sewer Authority in the Operation of Wastewater Treatment Plants in Greenville,” Western Carolina Regional Sewer Authority, Principal Investigator, \$18,000 (\$18,000), (2000-2001).
- “Transformation Reactions of Nitroaromatic and Nitrogen Heterocyclic Compounds on GAC Surfaces: Enhancement of GAC Adsorption in Natural and Engineered Environmental Systems,” Gulf Cost Hazardous Substance Research Center, Co-Principal Investigator, \$35,867 (\$17,934), (1999-2001).
- “Bench-Scale Testing and Technical Support for the Creation of an In Situ Reactive Wall,” FRx Incorporation, Co-Investigator, \$55,143 (\$6,890), (2000).
- “Chemical & Microbial Characterization of Water Quality in SJWD Water Sources: 1999-2000,” Startex, Jackson, Wellford & Duncan Water District, Principal Investigator, \$35,000 (\$35,000), (1999-2000).
- “AWWA-South Carolina Section Graduate Student Research Assistant Fellowship,” Principal Investigator, \$6,400 (\$6,400), (1998-1999).
- “Process Improvements in Disinfection and Sludge Dewatering at the Western Carolina Regional Sewer Authority Wastewater Treatment Plants in Greenville,” Western Carolina Regional Sewer Authority, Co-Principal Investigator, \$15,000 (\$15,000), (1998-1999).
- “Chemical & Microbial Characterization of Water Quality in SJWD Water Sources: 1998-1999,” Startex, Jackson, Wellford & Duncan Water District, Principal Investigator, \$29,750 (\$29,750), (1998-1999).
- “Water Quality Characterization in Lakes Cooley and Lyman,” Startex, Jackson, Wellford & Duncan Water District, Principal Investigator, \$45,000 (\$45,000), (1997-1998).
- “Process Improvements in Disinfection and Sludge Dewatering at the Western Carolina Regional Sewer Authority Wastewater Treatment Plants in Greenville,” Western Carolina Regional Sewer Authority, Co-Principal Investigator, \$13,000 (\$6,500), (1997-1998).
- “Technical Assistance to Western Carolina Regional Sewer Authority in the Operation of Wastewater Treatment Plants in Greenville,” Western Carolina Regional Sewer Authority, Co-Principal Investigator, \$10,000 (\$5,000), (1996-1997).



Tanju Karanfil, PhD

Curriculum Vitae



Other Sponsored Activity

- “Junior Nuclear Environmental Engineering and Science Faculty at Clemson University,” Nuclear Regulatory Commission, \$400,000 (\$0), (2010-2013).
- “Graduate Course at Savannah River Site: EE&S 802 Environmental Engineering Principles,” Department of Energy, \$7,600 (\$7,600), (1999).
- “Physical and Chemical Processes in Industrial Water Treatment: Module I: Regulations and Aggregation and Precipitation Processes,” SCUREF/Westinghouse Savannah River Company, \$6,460 (\$6,400), (1999).



Tanju Karanfil, PhD
Curriculum Vitae

6. GRADUATE STUDENT ADVISING AND POSTDOCTORAL RESEARCH ASSOCIATES

Dr. Karanfil has mentored more than 100 graduate students, post-doctoral research associates, and visiting scholars and exchange students.

Graduate Student Advising

Ph.D. Graduates (n=12)

1. Apul, O. "Predictive Model Development for Adsorption of Organic Contaminants by Carbon Nanotubes" (August 2014).
2. Beita-Sandi, W. "A Mixed Cation and Anion Exchange System for the Simultaneous Removal of N-nitrosodimethylamine and Trihalomethanes Precursors from Water" (August 2017).
3. Chen, W., "Removal of Dissolved Natural Organic Matter and Control of Disinfection By-products by Modified Activated Carbons," (August 2006).
4. Ersan, M.S., "The Formation and Control of Selected Unregulated Disinfection By-Products (DBPs) in Water Treatment," (December 2017).
5. Hong, Y., "Exploring the Pathways of Dihalogenated Acetic Acid (DXAA) Formation during Chloramination," (August 2006).
6. Hu, J. "Formation and Distribution of Halonitromethanes in Drinking Waters," (December 2009).
7. Hur, J., "Effects of Humic Substances (HS) Heterogeneity on Pyrene Binding to Dissolved and Mineral-Bound (HS)," (August 2002) (Co-advisor).
8. Kanan, A. "Occurrence and Formation of Disinfection By-Products in Indoor Swimming Pools" (May 2010).
9. Kitis, M., "Probing Chlorine Reactivity of Dissolved Organic Matter for Disinfection by-product (DBP) Formation: Relations with Specific Ultraviolet Absorbance (SUVA) and Development of the DBP Reactivity Profile," (May 2001).
10. Selbes, M. "The Effects of Amine Structure, Chloramine Species and Oxidation Strategies on the Formation of N-Nitrosodimethylamine," (August 2014).
11. Uzun, H. "N-Nitrosodimethylamine in Drinking Water: Temporal Formation Potential Patterns in Source Waters and Treatability of Precursors," (May 2016).
12. Zhang, X. "Impact of Biological Wastewater Treatment on the Reactivity of N-Nitrosodimethylamine Precursors," (May 2020).



Tanju Karanfil, PhD
Curriculum Vitae

Master Graduates (n=46)

1. Addison, J., "The Formation and Speciation of Halonitromethanes in Wastewater Treatment Plant Effluents" (May 2008).
2. Allen, A., "Analysis and Optimization of an ORP-Controlled Disinfection Process," (May 2003).
3. Ariturk, E. "Removal of 2-Methylisoborneol (MIB) and Geosmin with Powdered Activated Carbon Produced from Soybean Hulls" (May 2021).
4. Baiden, L., "Analysis of Disinfection Difficulties at a Municipal Wastewater Treatment Plant" (August 2000).
5. Bakkaloglu, S. "Adsorption of Synthetic Organic Chemicals: A Comparison of Superfine Powdered Activated Carbon with Powdered Activated Carbon" (August 2014).
6. Beita-Sandi, W. "Removal of N-Nitrosodimethylamine and Trihalomethanes Pre-cursors with Powdered Activated Carbon" (August 2013).
7. Chen, C. "Removal of Bromide from Surface Waters Using Silver Impregnated Activated Carbon" (May 2015).
8. Cooper, J., "Analysis of Water Energy Use at Water Treatment Plants," (August 2010).
9. Cumbie, E., "Removal and Sequestration of Iodide from DOE Waste Streams using Silver Chloride Impregnated Activated Carbon," (August 2002).
10. Erdogan, I., "Factors Affecting the Dissolved Organic Carbon and Ultraviolet Absorption Measurements with Implications for Specific Ultraviolet Absorption Determination," (December 2003).
11. Ferrell, L. "Energy Management in Water and Wastewater Treatment," (December 2008).
12. Gan, X., "The Control of Carbonaceous and Nitrogenous Disinfection By-Products with Magnetic Ion Exchange Process," (December 2012).
13. Glen, M., "Control of N-Nitrosodimethylamine Formation via Preoxidation during Drinking Water Treatment," (August 2014).
14. Habib, N., "Formation and Speciation of Disinfection By-Products in Treated Wastewater Effluents during Chlorination," (December 2018)
15. Haddock, R., "Ultrafiltration Fractionation of Selected Natural Organic Materials," (May 2001).
16. Hirsh, S., "The Fate and Removal of Selected Metals at the Mauldin Road Wastewater Treatment Plant," (December 2004)
17. Hoskins, J., "Removal of Iodide Using Silver Impregnated Activated Carbon from DOE Waste Streams," (May 2001).
18. Johnston, A. "Developing a Greenhouse Gas Emissions Calculation Tool for Water Utilities," (August 2012).
19. Jones, D. "The Formation and Control of Iodinated Trihalomethanes in Drinking Water Treatment," (August 2009).
20. Keifer, M. C., "Industrial Pollution Prevention Assessment for Amoco Fabric and Fiber Company," (May 1999).
21. King, W. "Fractionation of Natural Organic Matter Using Ultrafiltration," (May 2000).



Tanju Karanfil, PhD
Curriculum Vitae

22. Kose, S. "The Effects of Physical Factors on the Adsorption of Synthetic Organic Compounds by Activated Carbons and Activated Carbon Fibers," (August 2010).
23. Lauer, J., "The Use of Oxidants for NDMA Precursor Deactivation in Wastewater Treatment," (August 2014).
24. Lewis, D. "Evaluation of Manganese Control in the Source Water and Microfiltration Plant of a South Carolina Water Utility," (May 2011).
25. Longshore, M. "Sustainability through Energy Reduction Initiatives for Water Treatment Utilities: Preliminary Data Collection, Analysis and Energy Reduction Recommendations," (December 2010).
26. Orr, O. "The Characterization, Isolation and Fractionation of Natural Water from Three Surface Waters," (August 2009).
27. Ozburn, S. C., "Does a Wastewater Treatment Plant Discharge Affect the Performance of a Water Treatment Plant at the Downstream," (December 1998).
28. Partiban, R. "The Effect of Temperature on Emerging Disinfection By-Product Formation and Stability," (May 2015).
29. Reid, L., "Storm Water Export of Nitrogen, Phosphorus and Carbon from Developing Catchments in the Upper Piedmont Physiographic Province" (May 2008).
30. Rombardo, F., "The Formation and Speciation of Disinfection By-Products in the Presence of Chlorine and Chloramines," (August 2002).
31. Sawyer, D. A., "Optimization of a Textile Wastewater Treatment Plant: Pilot- and Full-Scale Experiences," (May 1999).
32. Selbes, M. "Leaching of Dissolved Organic and Selected Inorganic Constituents from Scrap Tires." (August 2009).
33. Shaikh, Z., "Adsorption of Selected Aromatic Compounds from Aqueous Solutions by Virgin and Modified Activated Carbon Fibers: An Investigation of Adsorption Mechanisms and the Role of Carbon Surface Chemistry and Pore Size Distribution," (August 2005).
34. Shao, T. "Factors Influencing the Adsorption of Synthetic Organic Compounds by Carbon Nanotubes in Aquatic Environments," (August 2010).
35. Smith, J., "The UV Oxidation of Natural Organic Matter and a Technique to Measure the Organic Nitrogen Concentration in Natural Waters," (December 2003).
36. Snyder, S.E., "Application of Material Balance Concept in Waste Minimization Assessment of a Latex Based Coating Production Process," (May 1999).
37. Soto, V. "Temperature Effects on DBP Formation," (August 2012).
38. Soyluoglu, M. "Removal of Bromide from Natural Waters: Bromide-Selective vs. Conventional Ion Exchange Resins," (December 2019).
39. Steinhilber, D. J., "Solution for Disinfection Difficulties in Western Carolina Regional Sewer Authority Wastewater Treatment Plants," (May 2001).
40. Sutton, K.M., "The Role of GAC Surface Chemistry on the Competitive Adsorption and Preloading Effects between Natural Organic Matter and Priority Pollutants," (May 1999).
41. Suber, H., "Factors Affecting the Determination of SUVA in Natural Waters," (December 1999).



Tanju Karanfil, PhD
Curriculum Vitae

Master Graduates continued

42. Thierbach, R., "Removal of Natural Organic Matter from Water Using Geothite and Hydrogen Peroxide," (December 1999).
43. Yadav, A., "Approaches to Mitigate the Impact of Dissolved Organic Matter on the Adsorption of Synthetic Organic Contaminants by Activated Carbon" (August 2007).
44. Yu, M. "The Effects of Temperature on THM and HAA Formation" (December 2012).
45. Zang, B. "Removal of TiO₂ by Conventional Water Treatment Processes" (August 2013).
46. Zhou, Y. "Adsorption of Halogenated Aliphatic Contaminants by Graphenes" (August 2014).

Current Graduate Advising (n=4)

1. Erdem, U (Ph.D.)
2. Soyluoglu, M. (Ph.D.)
3. Yildirim, H. (Ph.D.)

Postdoctoral Research Associates (n=26)

1. Abdallah, A.M. "Nanobubble and Microwave Projects" (2020)
2. Ates, N. "Formation of Nitrosamines in Drinking Waters," (2011-2012).
3. Ateia, M. "PFAS and Microplastics" (2017-2019).
4. Chen, H. "Wildfires, PFAS and Microplastics" (2019-present).
5. Dastgheib, S. "Novel Uses of Activated Carbon Fibers for Removal of Organic Pollutants from Aqueous Solutions and Preparation Surface Modified Activated Carbons and Carbon Fibers," (2001-2004).
6. Ersan, G. "Modeling of DBP Formation" (2017-2018)
7. Ersan, M.S. "Wildfire and Desalination Projects" (2017- 2018)
8. Genceli, E. "Investigation of Activated Carbon and Carbon Fiber Sorption Kinetics" (2004).
9. Ghafari, M. "Nanobubble and Microwave Projects" (2019-2020)
10. Guo, Y. "Modification of Activated Carbon Surfaces for Removal of Dissolved Organic Matter, Synthetic Organic Chemicals and Arsenic from Water and Wastewater" (2004-2007).
11. Hepplewhite, C. "NOM Isolation and Characterization, and Measurement of Dissolved Organic Nitrogen in Natural Waters," (2001-2003).
12. Hur, J. "A Watershed Approach to Characterize the Influence of Land Use Change on Aquatic Resources," (2004-2005)
13. Kaplan, S. "Control of C-DBPs and N-DBPs" (2010-2011).
14. Kanan, A. "DBP Formation and Control" (2019-2020)
15. Kim, D. "C-DBP and N-DBPs: Formation and Control" (2011-present)



Tanju Karanfil, PhD
Curriculum Vitae

Postdoctoral Research Associates continued

16. Liu, C. "DBP Formation and Desalination" (2015-2020).
17. Olivares, C.L. "Wildfire project" (2016-2017)
18. Perez, G., "Monitoring of Chemical and Microbial Water Quality in SJWD and Easley Reservoirs," (1997-2002).
19. Sevimli, M. "Disinfection By-Product Formation In the presence of Chlorine and Chloramines," (2001-2002).
20. Shan, J. "Formation and Control of C-DBPs and N-DBPs" (2009-2011).
21. Song, H. "A Watershed Approach to Characterize the Influence of Land Use Change on Aquatic Resources," (2004-2007).
22. Uzun, H. "Wildfire project" (2016-2017)
23. Wang, Q. "Adsorption of Organic Compounds by Carbon Nanotubes and Graphenes" (2011-2012).
24. Yilmaz, O. "Life Cycle Assessment Studies" (2012-2014).
25. Zaeker, Y. "Nanobubble and Microwave Projects" (2020-present)
26. Zhang, S. "Adsorption of Synthetics Organic Contaminants by Carbonaceous Adsorbents" (2007-2011).

Visiting Students & Scholars (n=20)

1. Akarsu, Y. from Sakarya University, Turkey, July-August 2010
2. Ates, N. from Middle East Technical University, Turkey, May – October 2007
3. Aurelien, T. from University of Poitiers, France, June – September 2008
4. Caillet, V. from University of Poitiers, France, June – September 2007
5. Calice, S. from Università della Basilicata, Italy, February – July 2019
6. Cebeci Sarioglu M. from Sivas University, June-August 2011
7. Chen, W. from University of Poitiers, France, June – September 2010
8. Ersan G. from Istanbul University, August 2011-August 2014
9. Gagliano, E. from University of Catania, Italy, January – July 2020
10. Hu, W., from Curtin University, Australia, February-July 2019
11. Inizan, S. from University of Poitiers, France, June – September 2006
12. Ipek, U. from Firat University, Turkey, March-May 2011
13. Kaplan, S. from Suleyman Demirel University, Turkey, August 2006 – August 2009
14. Ren, Y. from China, September 2013-September 2016
15. Saatci, Y. from Firat University, Turkey, March-May 2011
16. Saglam, A. from Hacettepe University, Turkey, September 2007 – March 2008
17. Selbes, M. from Middle East Technical University, Turkey, May 2006 – May 2007
18. Yilmaz, O. from Middle East Technical University, Turkey, May 2011 – July 2012
19. Yigit, C. from Middle East Technical University, Turkey, September 2011 – February 2012
20. Ying, H. from University of Poitiers, France, June – September 2010



Tanju Karanfil, PhD
Curriculum Vitae

7. TEACHING

Courses Taught

- EE&S 802, Environmental Engineering Principles, F 96, F 97, F 98, S 99, F99, F00, F04, F05, F06, F07
- EE&S 803, Physicochemical Operations in Water and Wastewater Treatment Systems, Sp 97, Sp 98, Sp 99, Sp 00, Sp 01, Sp 02, Sp 03, Sp 04, Sp 05, Sp 06, Sp 07, Sp 08, Sp 09, Sp 10, Sp 11, Sp 12, Sp 13, Sp 14
- EE&S 805, Laboratory in Water and Wastewater Treatment Operations, Sp 98, Sp 99, Sp 00, Sp 02, Sp 05, Sp 06, Sp 07, Sp 08, Sp 09, Sp 10, Sp 11, Sp 12, Sp 13, Sp 14, Sp 15
- EE&S 807, Physicochemical Operations in Hazardous Waste Treatment Systems, F 97
- EE&S 806, Process and Facility Design for Environmental Control Systems: Drinking Water Treatment Design Module, F 98, F 99, F00, F01, F02, F03, F04, F05, F06, F07, F09, F10, F11, F12, F13, F14
- EE&S 861, Environmental Engineering and Science Seminars, F 97, Sp 98, F02, Sp 03

New Course Development

- EE&S 802, Environmental Engineering Principles,
- EE&S 803, Physicochemical Operations in Water and Wastewater Treatment Systems,
- EE&S 805, Laboratory in Water and Wastewater Treatment Operations,
- EE&S 806, Process and Facility Design for Environmental Control Systems: Drinking Water Treatment Design Module,
- EE&S 807, Physicochemical Operations in Hazardous Waste Treatment Systems,
- EE&S 861, Environmental Engineering and Science Seminars



Tanju Karanfil, PhD
Curriculum Vitae

8. UNIVERSITY AND PUBLIC SERVICE

Committees

- Department:** Member, Advisory Committee (1996-present)
Member, Post-Tenure Review Committee (2004)
Coordinator, Faculty Task Group (2005)
Member, Research Funding Committee (2005)
Member, Instrumentation Infrastructure and Laboratories Work Groups (2005)
Member, Faculty Work Group (2005)
Member, Faculty Search Committee (2005-2006)
Member, Web Site Committee (2007-2008)
- College:** Dean Advisory Committee (2005)
Curriculum Committee (2006-2008)
Achievement/Collaboration Award Committee (2007-2008)
College Leadership Council (2008-present)
Member, Civil Engineering Department Chair Search Committee (2012-2013)
Member, General Engineering Director Search Committee (2013-2014)
- University:** Reviewer, Strategic Hires Pre-proposals (2012)
Member, Graduate School Dean Search Committee (2013-2014)
Member, Director of International Partners and Initiatives Search Committee (2014)
Member, President's Executive Leadership Team (2016-)
- Board representation:** SCFCA, SC Smart-State Endowed Chair, SC EPSCoR (Experimental Program to Stimulate Competitive Research), South Carolina Research Authority, South Carolina Universities Research and Education Foundation, Southeastern Universities Research Association, and Oak Ridge Associated Universities