CURRICULUM VITAE

DIONYSIOS (DION) D. DIONYSIOU

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Environmental Engineering and Science Program
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EDUCATION

2001	Ph.D.	Environmental Engineering	University of Cincinnati
1995	M.S.	Chemical Engineering	Tufts University
1991	Diploma	Chemical Engineering	National Technical University of Athens (N.T.U.A.), Greece

EXPERIENCE

3/2008-2/2009	Assistant Department Head for Research Excellence	University of Cincinnati
9/2008-present	Professor	University of Cincinnati
9/2005-8/2008	Associate Professor	University of Cincinnati
9/2000-8/2005	Assistant Professor	University of Cincinnati
9/1995-8/2000	Graduate Research Assistant	University of Cincinnati
9/1994-6/1995	Research Engineer	W. R. Grace, Massachusetts
8/1992-8/1994	Graduate Research Assistant	Tufts University
9/1990-10/1991	Research Assistant	N.T.U.A., Greece.
7/1984-9/1986	Military Service	Cyprus Army

TEACHING AND RESEARCH INTERESTS

Professor Dionysiou performs research in the fields of (i) Advanced oxidation technologies for water treatment, (ii) drinking water treatment and purification, (iii) physicochemical phenomena on particle-water interfaces, (iv) transition-metal oxidation and reverse electron transfer reactions, (v) the use of ionic liquids in environmental applications, (vi) destruction of biological toxins in water, and (vii) environmental nanotechnology (fundamental, fate, transport, and applications of nanomaterials). At the University of Cincinnati, Professor Dionysiou teaches graduate courses in the fields of (i) Advanced Unit Operations for the Treatment of Drinking Water and Wastewater, (ii) Physical-Chemical Processes for Water Quality Control, and (iii) Advanced Oxidation Technologies and Nanotechnologies. He also teaches a graduate level laboratory course on Unit Operations and Process Monitoring for the Treatment of Polluted Water and Air and an undergraduate course in Environmental Engineering Fundamentals and Process Design.

AWARDS AND HONORS

National (US)

- *Inaugural Super Reviewer Award (only three of these internationally in 2011), Environmental Science and Technology (American Chemical Society), 2011.*
- *Featured by the Chemistry World magazine, Royal Society of Chemistry, Interview on "Cleaning up water", http://www.rsc.org/chemistryworld/News/2011/July/05071101.asp* , July 5, 2011.
- *Excellence in Review Award, Environmental Science and Technology (American Chemical Society),* 2008.
- *AEESP Dissertation Advisor Award* for Mentoring Hyeok Choi who was selected as the recipient of the CH2M Hill/AEESP Outstanding Doctoral Dissertation Award for 2008.
- *National Science Foundation CAREER Award,* 2005.
- *DuPont Young Professor Award,* 2005.
- *Honor Roll Referee, Journal of Membrane Science, 2005.*
- *National Science Foundation Fellowship to Attend a Short Course on Nanotechnology, Biotechnology, and Green Manufacturing for Creating Sustainable Technologies,* Northwestern University, June 2005.
- *Who's Who in America 2004,* The Marquis Who's Who Publication Board.
- *American Water Works Association's First Place 2002 Academic Achievement Award for Best Dissertation,* 2002.
- *Journal of Environmental Engineering Editor's Award,* American Society of Civil Engineers, 2001.
- *Best Research Paper Presentation Award,* Symposium: *Nanotechnology in Catalysis*, ACS 221 National Meeting, April 1-5, 2001, San Diego, California.
- *Certificate of Merit Award for First Paper Presentation,* American Chemical Society, Division of Environmental Chemistry, ACS 222nd National Meeting, August 26-31, Chicago, 2001.
- *Recognition as a Member of Good Standing by ACS President*, American Chemical Society, 2001.
- *Graduate Student Research Paper Award for Excellence in Research and Presentation in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, 2001.
- *Graduate Student Award for Excellence in Graduate Studies in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, 2001.
- *AIChE Best Student Poster Paper* (co-author), Materials Science and Eng. Division, AIChE Annual Meeting, Nov. 1996, Chicago, IL.
- *Gerondelis Foundation Award*, Tufts University, 1992-94.

National (Greece)

- *Best Poster Presentation Award* (by unanimous decision of the Hellenic Catalysis Society committee), Anion Doped Nanostructured Titania for Photacatalytic Decomposition of Cyanotoxins using Visible Light by P. Falaras, V. Likodimos, A. G. Kontos, A. Hiskia, T.M.

Triantis, M. Pelaez and D. D. Dionysiou, The 11th Pan-Hellenic Symposium of Catalysis, October 22-23, 2010, Athens, Greece.

- *Hellenic National Scholarship Foundation (I.K.Y.) Fellowship*, Greece, 1986-91.
- *Hellenic National Scholarship Foundation (I.K.Y.) Award for Excellent Performance*, Greece, 1988-91.

State (Ohio)

- Featured (with Dr. Souhail Al-Abed from U.S. EPA) in a Focus on Technology radio news of 91.7 WVXU, Cincinnati Edition, "Want nanoparticles in your sunscreen? Technology may make the lotion work better, but are the ingredients safe for the environment?" by Ann Thompson, Sunday, August 16, 2009. http://www.wvxu.org/schedule/cincinnatiedition_archiveview.asp?ID=8/16/2009
- *Ohio American Water Works Association (OAWWA), Research Paper Award,* OAWWA Annual Conference, Cleveland, Ohio, August 29, 2001.
- *Ohio Water Environment Association (OWEA), First Place Student Research Paper Award and Presentation,* 75th Annual OWEA Conference, Dayton, Ohio, June 25-28, 2001.

University of Cincinnati

- *2010 College of Engineering Distinguished Engineering Researcher Award*
- *2009 College of Engineering Distinguished Engineering Researcher Award*
- *Awarded a three year term (2009-2012) the Herman Schneider Professorship in the College of Engineering at the University of Cincinnati.*
- *2007 Sigma Xi Young Investigator Research Recognition Award*, University of Cincinnati Chapter.
- *2006 College of Engineering Research Award for Young Faculty, University of Cincinnati.*
- *2003-2004 Distinguished Junior Faculty Research Award*, Department of Civil and Environmental Engineering, University of Cincinnati, 2004.
- *Dr. Pasquale V. and Flora Jean Scarpino and Family Award for The Best Doctor of Philosophy Dissertation*, Environmental Engineering Division, University of Cincinnati, 2001.

DION'S GROUP: AWARDS AND HONORS OF GRADUATE AND UNDERGRADUATE STUDENTS

National (US)/International

- My advisee Miguel Pelaez: *Best Student Paper Award,* joined International Ozone Association and the International Ultraviolet Association (IOA and IUVA) World Conference & Exhibition, May 23-27, 2011, Paris, France.
- My advisee Changseok Han: *National Science Foundation Travel Award* to Attend the 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (3rd IC4N) and the NSF Workshop and Participate in the Poster Competition, June 26-30, Crete, Greece.

- My advisee Miguel Pelaez: *Graduate Student Research Paper Award for Excellence in Research and Presentation in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, February 2011.
- My advisee Miguel Pelaez: *Graduate Student Award for Excellence in Graduate Studies in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, January 2010.
- My advisee Maria Antoniou: The 2009 NSF-AEESP Grand Challenge Student Paper Award at the International Environmental Education & Research Grand Challenge Session of The Association of Environmental Engineering and Science Professors (AEESP) 2009 conference, The University of Iowa, July 26th-29th, 2009.
- My advisee Miguel Pelaez: National Science Foundation Travel Award to Attend the 2nd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (2nd IC4N) and the NSF Workshop and Participate in the Poster Competition, June 28-July 3, Rhodes, Greece.
- My advisee Maria Antoniou: Finalist in the Young Scientist Competition of the International Conference on Xenobiotics in the Urban Water Cycle, Paphos, Cyprus, March 2009
- My advisee Hyeok Choi: CH2M Hill/AEESP Outstanding Doctoral Dissertation Award for 2008.
- My undergraduate advisee in research James Newton: Undergraduate *Student Award in Environmental Chemistry*, Division of Environmental Chemistry, American Chemical Society, April 17, 2008.
- My advisee Shirish Agarwal: *Graduate Student Research Paper Award for Excellence in Research and Presentation in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, March 2008.
- My advisee Maria Antoniou: *Graduate Student Award for Excellence in Graduate Studies in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, January 2008.
- My advisee Miguel Pelaez: *National Swimming Pool Foundation (NSPF) Fellowship Award* for his proposal on the "Formation of Disinfection Byproducts in Swimming Pools Using Oxone," July 2007.
- My advisee Maria Antoniou: *First Place Award for Best Poster Presentation in the Fresh Idea Winner's Session in the 2007 Annual Conference and Exposition (ACE),* American Water Works Association, Toronto, Ontario, Canada, June 24-28.
- My undergraduate advisee in research Daniel Breetz: Undergraduate *Student Award in Environmental Chemistry*, Division of Environmental Chemistry, American Chemical Society, April 10, 2007.
- My advisee Maria Antoniou: *Graduate Student Research Paper Award for Excellence in Research and Presentation in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, February 2007.
- My advisee Yongjun Chen: *Graduate Student Award for Excellence in Graduate Studies in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, January 2007.
- My advisee Hyeok Choi: Certificate of Merit Award for First Paper Presentation, "Surfactant Templated Sol-Gel Synthesis of Mesoporous TiO_2 Photocatalysts and Their Application in the Destruction of Cyanobacterial Toxins", American Chemical Society, Division of Environmental Chemistry, ACS 232nd National Meeting, September 10-14, 2006 San Francisco, 2006.

- My advisee Maria Antoniou: Certificate of Merit Award for First Paper Presentation, "Application of Mesoporous TiO_2 Photocatalysts for the Degradation of Microcystin-LR: The Degradation Pathway", American Chemical Society, Division of Environmental Chemistry, ACS 232nd National Meeting, September 10-14, 2006 San Francisco, 2006.
- My advisee Deborah H. Metz: American Water Works Association (AWWA)-Water Science & Research Division - Third Place Best Poster Award for her Poster Presentation Titled "The Effect of Fluoride Additives on Lead Solubility and Corrosion" [authors: Deborah H. Metz and Dionysios D. Dionysiou (University of Cincinnati), and Michael R. Schock (WSWRD, USEPA)], 2006 AWWA Annual Conference and Exposition, June 11-15, 2006, San Antonio, Texas.
- My advisee Maria Antoniou: *Sigma Xi Grants-in-Aid Research Award* for the Proposal "Destruction of the Cyanobacterial Toxins Microcystin- LR and Cylidrospermopsin with Advanced Oxidation Technologies (AOTs)", Sigma Xi, The Scientific Research Society, April 2006.
- My advisee Hyeok Choi: *Graduate Student Research Paper Award for Excellence in Research and Presentation in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, February, 2006.
- My advisee Hyeok Choi: *Graduate Student Award for Excellence in Graduate Studies in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, January 2005.
- My advisee George P. Anipsitakis: *Graduate Student Research Paper Award for Excellence in Research and Presentation in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, 2004.
- My advisee George P. Anipsitakis: *Graduate Student Award for Excellence in Graduate Studies in Environmental Science*, Division of Environmental Chemistry, American Chemical Society, January 2004.
- My advisee George P. Anipsitakis: *Robert Canham Graduate Studies Scholarship,* Water Environment Federation, June 2003.
- My advisee George P. Anipsitakis: *Sigma Xi Grants-in-Aid Research Award* for the Proposal "Novel Chemical Oxidation Process for Water Purification", Sigma Xi, The Scientific Research Society, January 2003.
- My advisee Qiaolin Yang: *Sigma Xi Grants-in-Aid Research Award* for the Proposal "Use of Water-Immiscible Room Temperature Ionic Liquids for Extraction and *In-situ* Destruction of Halogenated Organics," Sigma Xi, The Scientific Research Society, January 2003.
- My advisee George P. Anipsitakis: *Certificate of Merit Award for First Paper Presentation,* American Chemical Society, Division of Environmental Chemistry, ACS 223rd National Meeting, April 7-11, Orlando, Florida, 2002.
- My advisee George P. Anipsitakis: *Gerondelis Foundation Scholarship*, 2001.
- My advisee Evangelia Bekou: *Gerondelis Foundation Scholarship*, 2001.

State (Ohio)

- My advisee Miguel Pelaez: First Place Award at the Ohio American Water Works Association (OAWWA) Student Poster Competition, 73th OAWWA Annual Conference, September 20-23, 2011, Cincinnati, Ohio.
- My advisee Xuexiang He: Ohio American Water Works Association (OAWWA), 1st Place

Research Paper Award and Presentation, 73rd AWWA Ohio Section (OAWWA) Annual Conference, September 20-23, 2011, Cincinnati, Ohio.

- My advisee Shirish Agarwal: *Fresh Idea Winner*: Selected as Ohio Representative for the Poster competition of *Fresh Idea Winner's* at the ACE09. Travel Award to participate in the Annual Conference and Exposition (ACE) on the June 14–18, 2009 in San Diego, California from the MAC Committee and Young Professionals Committee of OAWWA to represent Ohio in the student poster competition
- My advisee Shirish Agarwal: *Ohio American Water Works Association (OAWWA)*, 1st Place Research Paper Award and Presentation, 70th AWWA Ohio Section (OAWWA) Annual Conference, September 16-19, 2008, Toledo, Ohio.
- My advisee Shirish Agarwal: *Ohio American Water Works Association (OAWWA)*, 1st Place for the Advanced Degree Scholarship, 70th AWWA Ohio Section (OAWWA) Annual Conference, September 16-19, 2008, Toledo, Ohio.
- My advisee Maria Antoniou: *Ohio American Water Works Association (OAWWA)*, 1st Place for Poster Presentation, 70th AWWA Ohio Section (OAWWA) Annual Conference, September 16-19, 2008, Toledo, Ohio.
- My advisee Miguel Pelaez: *Ohio American Water Works Association (OAWWA)*, 2nd Place for Poster Presentation, 70th AWWA Ohio Section (OAWWA) Annual Conference, September 16-19, 2008, Toledo, Ohio.
- My advisee Shirish Agarwal: *Ohio Section-American Water Works Association Advanced Degree/Continuing Education Scholarship*, June 2008.
- My advisee Maria Antoniou: *Ohio American Water Works Association (OAWWA)*, One of the three winners (1st Place) for the Research Paper Award and Presentation, 68th AWWA Ohio Section (OAWWA) Annual Conference, October 10-13, 2006, Cleveland, Ohio.
- My advisee Deborah H. Metz: *Ohio American Water Works Association (OAWWA)*, One of the three winners (2nd Place) for the Research Paper Award and Presentation, 68th AWWA Ohio Section (OAWWA) Annual Conference, October 10-13, 2006, Cleveland, Ohio.
- My advisee Hyeok Choi: *Advanced Degree/Continuing Education Scholarship from the NE District of the Ohio Section-American Water Works Association*, May 2006.
- My advisee Rachel Copeland: *Ohio American Water Works Association (OAWWA)*, Selected as one of the three winners for the Research Paper Award and Presentation, 67th AWWA Ohio Section (OAWWA) Annual Conference, September 19-22, 2005, Columbus, Ohio.
- My advisee Rachel Copeland: *Ohio American Water Works Association (OAWWA)*, Best Poster Paper Award, OAWWA Annual Conference, Toledo, Ohio, September 14-17, 2004.
- My advisee Yongjun Chen: *Ohio American Water Works Association (OAWWA)*, Selected as one of the three winners for the Research Paper Award and Presentation, OAWWA Annual Conference, Toledo, Ohio, September 14-17, 2004.
- My advisee Qiaolin Yang: *Ohio Water Environment Association (OWEA), First Place Student Research Paper Award and Presentation,* 76th Annual Ohio Water Environment Association (OWEA) Conference, Dayton, Ohio, June 25-28, 2002.
- My advisee George P. Anipsitakis: *Ohio American Water Works Association (OAWWA)*, Selected as one of the three finalists for the Research Paper Award and Presentation. OAWWA Annual Conference, Columbus, Ohio, September 16-19, 2002.
- My advisee Arturo A. Burbano: *Ohio American Water Works Association (OAWWA)*, Selected as one of the three finalists for the Research Paper Award and Presentation, OAWWA Annual Conference, Columbus, Ohio, September 16-19, 2002.

- My advisee Arturo A. Burbano: *Ohio American Water Works Association (OAWWA)*, Second Place Student Research Paper Award and Presentation, OAWWA Annual Conference, Cleveland, Ohio, August 29, 2001.

University of Cincinnati

- My undergraduate student advisee Trevor Lynch: *Undergraduate Research Poster Award-People's Choice winner*, University of Cincinnati, June 3, 2011.
- My advisee Xuexiang He: *John David Eye Fellowship*, Environmental Engineering and Science Program, University of Cincinnati, May 2011.
- My advisee Changseok Han: *Richard C. Wigger Scholarship*, Environmental Engineering and Science Program, University of Cincinnati, May 2011.
- My advisee Miguel Pelaez: *University Summer Research Fellowship*, 2011, University of Cincinnati.
- My advisee Changseok Han: *University Summer Research Fellowship*, 2011, University of Cincinnati.
- My advisee Miguel Pelaez: *John David Eye Fellowship*, Environmental Engineering and Science Division, Department of Civil and Environmental Engineering, University of Cincinnati, May 2010.
- My advisee Maria Antoniou: *Dissertation Completion Fellowship Award in Physical Sciences and Engineering* (single annual award) for 2009-2010, Graduate School of University of Cincinnati, June 10th, 2009.
- My advisee Maria Antoniou: *University of Cincinnati Graduate Student Award for Exemplary Scholarship in the area of Physical Science and Engineering*, May 27, 2009.
- My advisee Shirish Agarwal: *The 2009 Dr. Pasquale V. and Flora Jean Scarpino and Family Award for The Best Doctor of Philosophy Dissertation*, Environmental Engineering and Science Division, Department of Civil and Environmental Engineering, University of Cincinnati, May 2009.
- My advisee Maria Antoniou: *John David Eye Fellowship*, Environmental Engineering and Science Division, Department of Civil and Environmental Engineering, University of Cincinnati, May 2009.
- My advisee Miguel Pelaez: *Richard C. Wigger Scholarship*, Environmental Engineering and Science Division, Department of Civil and Environmental Engineering, University of Cincinnati, May 2009.
- My advisee Xuexiang He: *University Summer Research Fellowship*, 2009, University of Cincinnati.
- My advisee Maria Antoniou: Best Poster Student Award, "Detoxification of Water Contaminated with the Naturally Occurring Cyanotoxin Microcystin-LR by Utilizing Green Nanotechnologies," The 2009 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 6, 2009, Cincinnati, Ohio.
- My advisee Matthew Bosch (U. of Texas at Austin), undergraduate REU trainee, *Second Prize Poster Presentation Winner*, 2008 NSF REU Site Program in Membrane Applied Science and Technology, University of Cincinnati.
- My advisee Aditya Rastogi: *Dr. Pasquale V. and Flora Jean Scarpino and Family Award for The Best Master Thesis*, Environmental Engineering Division, University of Cincinnati, June 2008.

- My advisee Shirish Agarwal: *John David Eye Fellowship*, Environmental Engineering and Science Division, Department of Civil and Environmental Engineering, University of Cincinnati, June 2008.
- My advisee Maria Antoniou: *College of Engineering Finalist Award for the UC 2008 Graduate Assistant Excellence in Teaching Award*, University of Cincinnati.
- My advisee Miguel Pelaez: *University Summer Research Fellowship*, 2008, University of Cincinnati.
- My advisee Maria Antoniou: *University Summer Research Fellowship*, 2008, University of Cincinnati.
- My advisee Shirish Agarwal: *University Summer Research Fellowship*, 2008, University of Cincinnati.
- My advisee Maria Antoniou: *Rindsberg Memorial Fellowship*, 2007-2008, College of Engineering, University of Cincinnati.
- My advisee Emily Riley: *Rindsberg Memorial Fellowship*, 2007, College of Engineering, University of Cincinnati.
- My advisee Hyeok Choi: *The 2007 Dr. Pasquale V. and Flora Jean Scarpino and Family Award for The Best Doctor of Philosophy Dissertation*, Environmental Engineering and Science Division, Department of Civil and Environmental Engineering, University of Cincinnati, June 2007.
- My advisee Bhargavi Subramanian: *Dr. Pasquale V. and Flora Jean Scarpino and Family Award for The Best Master Thesis*, Environmental Engineering Division, University of Cincinnati, June 2007.
- My advisee Maria Antoniou: *Best Poster Presentation Award* in the Ph.D. Category for the study on "Degradation of the cyanobacterial toxins microcystin- LR and cylindrospermopsin with TiO_2 photocatalysts: Reaction Intermediates", The 2007 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 2, 2007, Cincinnati, Ohio.
- My advisee Shirish Agarwal: *Best Poster Presentation Award* for the study on "Pd/Mg Bimetallic Corrosion Systems for Dechlorination of PCB contaminated Matrices", The 2007 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 2, 2007, Cincinnati, Ohio.
- My advisee Hyeok Choi: *University of Cincinnati's 2006 Graduate Student Award for Exemplary Scholarship in Physical Sciences and Engineering* (only one annual award in the area of Physical Sciences and Engineering) (Graduate Student Governance Association of University of Cincinnati), June 2006.
- My advisee Hyeok Choi: *University of Cincinnati's Distinguished Dissertation Award for Physical Sciences and Engineering* for the 2006-2007 academic year (only one annual award in the area of Physical Sciences and Engineering), University of Cincinnati, May 2006.
- *My advisee George P. Anipsitakis: The 2006 Dr. Pasquale V. and Flora Jean Scarpino and Family Award for The Best Doctor of Philosophy Dissertation*, Environmental Engineering and Science Division, Department of Civil and Environmental Engineering, University of Cincinnati, May 2006.
- My advisee Hyeok Choi: *John David Eye Fellowship*, Environmental Engineering and Science Division, Department of Civil and Environmental Engineering, University of Cincinnati, May 2006.

- My advisee Yongjun Chen: *University Summer Research Fellowship*, 2006, University of Cincinnati.
- My advisee Maria Antoniou: *Best Poster Student Award* "Detoxification of Cyanobacterial-contaminated Water with Sulfate Radicals", *The 2006 Graduate Student Research/Scholarship Forum of the University of Cincinnati*, March 3, 2006, Cincinnati, Ohio.
- My advisee Hyeok Choi: *Rindsberg Memorial Fellowship*, 2005, College of Engineering, University of Cincinnati.
- My advisee Anna Sofranko, visiting student from the University of Virginia: *Poster Award (2nd prize) for REU Summer Students of the NSF REU Site Program in Membrane Sciences*, 2005, University of Cincinnati.
- My advisee Hyeok Choi: *University Summer Research Fellowship*, 2005, University of Cincinnati.
- My advisee Maria Antoniou: *Best Poster Student Award* "Applications of Advanced Oxidation Technologies in Water Purification: Removal and Industrial Microbial Toxins", The 2004 Ralph and Helen Oesper Symposium, University of Cincinnati, October 15-16, 2004.
- My advisee Qiaolin Yang: *Dr. Pasquale V. and Flora Jean Scarpino and Family Award for The Best Master Thesis*, Environmental Engineering Division, University of Cincinnati, June 2004.
- My advisee Hyeok Choi: *Richard C. Wigger Scholarship*, Environmental Engineering and Science Division, Department of Civil and Environmental Engineering, University of Cincinnati, June 2004.
- My advisee Hyeok Choi: *University Summer Research Fellowship*, 2004, University of Cincinnati.
- My advisee George P. Anipsitakis: *University of Cincinnati's Distinguished Dissertation Award for Physical Sciences and Engineering* for the 2004-2005 academic year (only one annual award in the area of Physical Sciences and Engineering), May 2004, University of Cincinnati.
- My advisee George P. Anipsitakis: *UC Graduate Students-Emblems of Excellence*, featured in the presentation of Dr. Howard Jackson, Vice President for Research and University Dean of Advanced Studies as one of UC graduate students that are performing outstanding research, Graduate Recruitment Weekend, March 7-8, 2003.
- My advisee Hyeok Choi: *University Summer Research Fellowship*, 2003, University of Cincinnati.
- My advisee George P. Anipsitakis: *Rindsberg Memorial Fellowship*, 2002, College of Engineering, University of Cincinnati.
- My advisee George P. Anipsitakis: *University Summer Research Fellowship*, 2002, University of Cincinnati.
- My advisee Arturo A. Burbano: *John David Eye Fellowship*, 2001, Environmental Engineering and Science Division, Department of Civil and Environmental Engineering, University of Cincinnati.
- My advisee Arturo A. Burbano: *University Summer Research Fellowship*, 2001, University of Cincinnati.

SCIENTIFIC PUBLICATIONS

A. REFEREED JOURNAL ARTICLES (Peer Reviewing)

Published and In Press Available On-Line

1. Yong Cai Zhang, Jing Li, Ming Zhang, and Dionysios D. Dionysiou, Size-Tunable Hydrothermal Synthesis of SnS_2 Nanocrystals with High Performance in Visible Light-Driven Photocatalytic Reduction of Aqueous Cr(VI), *Environmental Science and Technology*, In Press, Available On-Line ASAP, October 4, 2011.

2. Changseok Han, Miguel Pelaez, Vlassis Likodimos, Athanassios G. Kontos, Polycarpos Falaras, Kevin O'Shea, and Dionysios D. Dionysiou, Innovative Visible Light-activated Sulfur doped TiO_2 for Water Treatment, *Applied Catalysis B: Environmental*, *Applied Catalysis B:Environmental* **107** (1/2) (2011) 77-87.

3. Stephen P. Mezyk, Kimberly A. Rickman, Garrett McKay, Charlotte M. Hirsch, Xuexiang He, and Dionysios D. Dionysiou, Remediation of Chemically-Contaminated Waters Using Sulfate Radical Reactions: Kinetic Studies, *ACS Symposium Series* **1071** (Aquatic Redox Chemistry, Eds. Paul G. Tratnyek, Timothy J. Grundl, and Stefan B. Haderlein), Chapter 12, (2011) 247-263.

4. D. H. Metz, M. Meyer, A. Dotson, E. Beerendonk and D. D. Dionysiou, The Effect of UV/H_2O_2 Treatment on THM and HAA Formation Potential under Simulated Distribution System Conditions, *Water Research* **45** (13) (2011) 3969-3980.

5. Miguel Pelaez, Armah A. de la Cruz, Kevin E. O'Shea, Polycarpos Falaras, and Dionysios D. Dionysiou, Effects of Water Parameters on the Degradation of Microcystin-LR under Visible Light-activated TiO_2 Photocatalyst, *Water Research* **45** (12) (2011) 3787-3796.

6. Yong Cai Zhang, Zhen Ni Du, Kunwei Li, Ming Zhang, Dionysios D. Dionysiou, High Performance Visible Light-Driven SnS_2/SnO_2 Nanocomposite Photocatalyst Prepared via In-Situ Hydrothermal Oxidation of SnS_2 Nanoparticles, *ACS Applied Materials & Interfaces* **3** (5) (2011) 1528-1537.

7. Yongjun Chen, Suzanne K. Lunsford, Yongcheng Song, Huangxian Ju, Polycarpos Falaras, Vlassis Likodimos, Athanassios G. Kontos, and Dionysios. D. Dionysiou, Synthesis, Characterization and Electrochemical Properties of Mesoporous Zirconia Nanomaterials Prepared by Self-assembling Sol-Gel Method with Tween 20 as a Template, *Chemical Engineering Journal* **170** (2/3) (2011) 518-524.

8. Lin Chen, Dionysios D. Dionysiou, and Kevin O'Shea, Removal of Microcystin from Aqueous Solution by Cyclodextrin Complex, *Environmental Science and Technology* **45** (6) (2011) 2293–2300.

9. A. G. Kontos, M. Pelaez, V. Likodimos, N. Vaenas, D. D. Dionysiou, and P. Falaras, Visible and UV Light-Induced Wetting of Nanostructured N-F co-doped Titania Films, *Photochemical & Photobiological Sciences* **10** (3) (2011), 350-354.

10. B. Subramanian, S. Y. Christou, V. Namboodiri, A. M. Efstathiou, and D. Dionysiou, Regeneration of Three-Way Automobile Catalysts using Biodegradable Metal Chelating Agent – S, S- Ethylenediamine Disuccinic Acid (S, S-EDDS), *Journal of Hazardous Materials* **186** (2/3) (2011) 999-1006.

11. Erick R. Bandala, Liliana González, Felipe de la Hoz, Miguel A. Pelaez, Dionysios D. Dionysiou, Patrick S.M. Dunlop, J. Anthony Byrne, Jose Luis Sanchez, Application of Azo Dyes as Dosimetric Indicators for Enhanced Photocatalytic Solar Disinfection (ENPHOSODIS), *Journal of Photochemistry and Photobiology A-Chemistry* **218** (2/3) (2011), 185-191.

12. D. H. Metz, K. Reynolds, M. Meyer and D. D. Dionysiou, The Effect of UV/H_2O_2 Treatment on Biofilm Formation Potential, *Water Research* **45** (2) (2011) 497-508.

13. Armah A. de la Cruz, Maria G. Antoniou, Miguel Pelaez, Anastasia Hiskia, Weihua Song, Kevin E. O'Shea, Xuexiang He and Dionysios D. Dionysiou, Can we Effectively Degrade Microcystins? - Implications for Impact on Human Health Status, *Anti-Cancer Agents in Medicinal Chemistry* **11** (1) (2011) 19-37.

14. Stephen P. Mezyk, Edsel M. Abud, Katy L. Swancutt, Garrett McKay, and Dionysios D. Dionysiou, Removing Steroids from Contaminated Waters Using Radical Reactions, *ACS Symposium Series* **1084** (Contaminants of Emerging Concern in the Environment: Ecological and Human Health Considerations; Editor: Rolf U. Halden) (2010) Chapter 9, pp. 213-225.

15. Maria G. Antoniou, Armah A. de la Cruz, and Dionysios D. Dionysiou, Intermediates and Reaction Pathways from the Degradation of Microcystin-LR with Sulfate Radicals, *Environmental Science and Technology* **44** (19) (2010) 7238-7244.

16. Miguel Pelaez, Polycarpos Falaras, Vlassis Likodimos, Athanassios G. Kontos, Armah A. de la Cruz, Kevin O'Shea and Dionysios D. Dionysiou, Synthesis, Structural Characterization and Evaluation of Sol-gel-based NF-TiO_2 Films with Visible Light-Photoactivation for the Removal of Microcystin-LR, *Applied Catalysis B: Environmental* **99** (3/4) (2010) 378-387.

17. N. Lagopati, P. V. Kitsiou , A. I. Kontos, P. Venieratos, E. Kotsopoulou, A. G. Kontos, D. D. Dionysiou, E. C. Tsilibary and P. Falaras, Photo-induced cancer Treatment using Nanostructured Titanium Dioxide Solution, *Journal of Photochemistry and Photobiology A: Chemistry* **214** (2/3) (2010) pp. 215-223.

18. Vlassis Likodimos, Dionysios D. Dionysiou, and Polycarpos Falaras, CLEAN WATER: Water Detoxification Using Innovative Photocatalysts, *Reviews in Environmental Science and Bio/Technology* **9** (2) (2010) 87-94.

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199. Dionysios D. Dionysiou, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker, Ultraviolet- and Solar Light-Activated Nanostructured TiO_2 Photocatalysts: Application in the Destruction of Cyanotoxins, a Group of Emerging Drinking Water Contaminants. *Proceedings of the Symposium on Catalytic Control of Emerging Micropollutants, Division of Environmental Chemistry, Vol. 47, No.1, 233rd American Chemical Society National Meeting (ACS)*, March 25-29, 2007, Chicago, Illinois.

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209. Miguel Pelaez, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou, Effects of Water Parameters on the Degradation of Microcystin-LR Under Solar Light-activated TiO_2 Photocatalysts. *Proceedings of the Division of Environmental Chemistry, 235th American Chemical Society (ACS) National Meeting*, April 6-10, 2008, New Orleans, Louisiana.

210. Shirish Agarwal, Souhail R. Al-Abed, and Dionysios D. Dionysiou, Nano-scale Palladium Doping on Magnesium Particles for PCB Dechlorination: Evaluation of Critical Parameters in Bimetallic Synthesis. *Proceedings of the Session: General Papers, Division of Environmental Chemistry, 235th American Chemical Society (ACS) National Meeting*, April 6-10, 2008, New Orleans, Louisiana.

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213. Maria G. Antoniou, Jody A. Shoemaker, A. de la Cruz, and Dionysios D. Dionysiou, Utilization of Mass Spectrometry for the Identification of Reaction Intermediates Formed during the Degradation of the Cyanotoxins Microcystin-LR and Cylindrospermopsin. Accepted for the *Proceedings of the Division of Environmental Chemistry, the 236th American Chemical Society (ACS) National Meeting*, August 17-20, 2008, Philadelphia, Pennsylvania.

214. Shirish Agarwal, Souhail R. Al-Abed, and Dionysios D. Dionysiou, PCB Dechlorination with Pd/Mg Bimetallic Systems: Effect of Position of Chlorine on Reaction Kinetics and Dechlorination Pathways for Select Congeners. Proceedings of the C. Ellen Gonter Environmental Chemistry Awards Session, Division of Environmental Chemistry, 236th American Chemical Society (ACS) National Meeting, August 17-21, 2008, Philadelphia, Pennsylvania.

215. A. A. S. Bhagat, S. S. Kuntaegowdanahalli, D. D. Dionysiou, and I. Papautsky, Lab-on-a-Chip for Passive Particle Separations in Environmental Applications. *Proceedings of the Division of Environmental Chemistry, the 236th American Chemical Society (ACS) National Meeting*, August 17-20, 2008, Philadelphia, Pennsylvania.

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217. Deborah H. Metz, Maria Meyer, Dionysios D. Dionysiou, and E. F. Beerendonk, Efficacy of UV/H_2O_2 for a Large U.S. Drinking Water Utility with Disinfection By-products Concerns. *Proceedings of the 2nd European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP2)*, September 7-9, 2009, Nicosia, Cyprus.

218. Elias Stathatos, Yongjun Chen, and Dionysios D. Dionysiou, Comparative Studies on Dye Sensitized Solar Cells with Nanostructured TiO2 Films Prepared at Room or High Temperature. *Proceedings of The International Conference on Renewable Energies (ICRE-2010)*, April 5-8, 2010, Higher Institute for Applied Science and Technology, Damascus, Syria.

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222. Xuexiang He, Armah A. de la Cruz, and Dionysios D. Dionysiou, Removal of Cylindrospermopsin from Water by Photochemical Oxidation. Submitted for the Proceedings of the 2nd North American Conference on Ozone, Ultraviolet & Advanced Oxidation Technologies, September 19-20, 2011, Toronto, Ontario, Canada.

E. RESEARCH REPORTS

223. Dionysios D. Dionysiou and Makram T. Suidan, Annual Progress Report for the Project Entitled "Engineered Process for the Photocatalytic Degradation of Organic Contaminants in Water," Drinking Water Department, Centre International de Researche Sur l'Eau et l' Environnement (CIRSEE), Lyonnaise Des Eaux, Le Pecq, France, 1996.

224. Dionysios D. Dionysiou, Ganesh Balasubramanian and Makram T. Suidan, Annual Progress Report for the Project Entitled "Engineered Process for the Photocatalytic Degradation of Organic Contaminants in Water," Drinking Water Department, Centre International de Researche Sur l'Eau et l' Environnement (CIRSEE), Lyonnaise Des Eaux, Le Pecq, France, 1997.

225. Dionysios D. Dionysiou, Ganesh Balasubramanian and Makram T. Suidan, Annual Progress Report for the Project Entitled "Engineered Process for the Photocatalytic Degradation of Organic Contaminants in Water," Drinking Water Department, Centre

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226. Dionysios D. Dionysiou, Ganesh Balasubramanian and Makram T. Suidan, Annual Progress Report for the Project Entitled "Engineered Process for the Photocatalytic Degradation of Organic Contaminants in Water," Drinking Water Department, Centre International de Researche Sur l'Eau et l' Environnement (CIRSEE), Lyonnaise Des Eaux, Le Pecq, France, 1999.

227. Dionysios D. Dionysiou, Ganesh Balasubramanian and Makram T. Suidan, Final Report for the Project Entitled "Engineered Process for the Photocatalytic Degradation of Organic Contaminants in Water," Centre International de Researche Sur l'Eau et l' Environnement (CIRSEE), Lyonnaise Des Eaux, Le Pecq, France, 2000.

228. Dionysios D. Dionysiou, Evangelia Bekou and George P. Anipsitakis, Annual Progress Report for the Project Entitled "The Use of Ionic Liquids for the Remediation of Wastewater Contaminated by Organic Halogens," in the Collaborative Project from the National Science Foundation. Submitted to Dr. Gregory Botsaris, Department of Chemical Engineering, Tufts University, Medford, Massachusetts, August 19, 2001.

229. Dionysios D. Dionysiou and Arturo A. Burbano, Final Report of the Project Entitled "Optimized Treatment of MTBE-Contaminated Water Using the Fenton Reagent," U.S. EPA Contract No. 68-C-00-159, Task Order No. 5. Submitted to the National Risk Management research Laboratory, U.S. Environmental Protection Agency, November 30, 2001.

230. Dionysios D. Dionysiou, Arturo A. Burbano and Makram T. Suidan, Final Report (Revised Version) of the Project Entitled "Treatment of MTBE-Contaminated Water Using the Fenton Reagent," U.S. EPA Contract No. 68-C-00-159, Task Order No. 19. Submitted to the National Risk Management research Laboratory, U.S. Environmental Protection Agency, July 22, 2002.

231. Makram T. Suidan, Dionysios D. Dionysiou, and George A. Sorial, "Assessment of Effect of Risk Management Activities on the Speciation and Transport of Mercury in Aquatic Sediments", Final Project Report for Contract No. 68-C-00-159 Task Order #16, Submitted to U.S. EPA, September 2002.

232. Dionysios D. Dionysiou, Qiaolin Yang and Evangelia Bekou, Final Report for the Project Entitled "The Use of Ionic Liquids for the Remediation of Wastewater Contaminated by Organic Halogens," in the Collaborative Project from the National Science Foundation. Submitted to Dr. Gregory Botsaris, Department of Chemical Engineering, Tufts University, Medford, Massachusetts, October 1, 2002.

233. Dionysios D. Dionysiou, 2003 Annual Project Report for the NASA Project titled "High Performance TiO_2 Photocatalytic Coatings and Membranes for the Purification,

Disinfection and Recycle of Water and Air in Space Applications (Grant number NAG 9-1475)", submitted to NASA, November 15, 2003.

234. Dionysios D. Dionysiou, Qiaolin Yang and Evangelia Bekou, Final Report for the CICEET Project Entitled "Use of Novel Hydrophobic Ionic Liquids for Extraction and In-Situ destruction of Chlorinated Phenols and Polycyclic Aromatic Hydrocarbons (PAHs)." Submitted to Dr. Richard Langan, UNH CICEET Co-Director, University of New Hampshire, January 27, 2003.

235. Daniel B. Oerther, Dionysios D. Dionysiou, George A. Sorial, Hyeok Choi, and Kai Zhang, "Preventing the Initiation of Biofouling of Membrane Bioreactors in Wastewater Treatment", Final Report, Submitted to the Ohio State Water Resources Center, USGS, June 30, 2004.

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237. Dionysios D. Dionysiou, 2004 Annual Project Report for the NASA Project titled "High Performance TiO_2 Photocatalytic Coatings and Membranes for the Purification, Disinfection and Recycle of Water and Air in Space Applications (Grant number NAG 9-1475)", submitted to NASA, November 15, 2004.

238. Dionysios D. Dionysiou and Bhargavi Subramanian, Final Report for the CICEET Project Entitled "Use of Room Temperature Ionic Liquids (RTILs) and Other Novel Solvents for Extraction and In-situ Destruction of Chlorinated Phenols, Polycyclic Aromatic Hydrocarbons and Pesticides" Submitted to Dr. Richard Langan, UNH CICEET Co-Director, University of New Hampshire, March 26, 2006.

239. Dionysios D. Dionysiou, 2005 Annual Project Report for the NSF Project titled "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation", submitted to NSF, June 2006.

240. Dionysios D. Dionysiou, 2005 Annual Project Report for the NASA Project titled "High Performance TiO_2 Photocatalytic Coatings and Membranes for the Purification, Disinfection and Recycle of Water and Air in Space Applications (Grant number NAG 9-1475)", submitted to NASA, June 2006.

241. Dionysios D. Dionysiou, Final Report for the Project (ID 2005OH26B) titled "Use of Persulfate and Peroxymonosulfate Oxidants for the Destruction of Ground Water Contaminants", Submitted to the Ohio Water Resource Center at Ohio State University, June 23, 2006.

242. Dionysios D. Dionysiou, First Annual Project Report for the DuPont Young Professor Grant, submitted to DuPont, July 2006.

243. Dionysios D. Dionysiou, Final Project Report for the NASA Project titled "High Performance TiO_2 Photocatalytic Coatings and Membranes for the Purification, Disinfection and Recycle of Water and Air in Space Applications (Grant number NAG 9-1475)", submitted to NASA, February 16, 2007.

244. Dionysios D. Dionysiou, 2006 Annual Project Report for the NSF Project titled "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation", submitted to NSF, April 1, 2007.

245. Dionysios D. Dionysiou, Second Annual Project Report for the DuPont Young Professor Grant, submitted to DuPont, May 2007.

246. Dionysios D. Dionysiou, 2007 Annual Project Report for the NSF Project titled "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation", submitted to NSF, April 1, 2008.

247. Dionysios D. Dionysiou and Suzanne Lunsford, Final Report for the project "Nanoscale Modification and Functionalization of Carbon Electrodes for the Detection of Harmful Organic Chemicals in Water such as Phenol and Domoic Acid," Water Resources Research Institute, US Geological Survey (USGS) through the Ohio State University Research Foundation, (Dionysios D. Dionysiou, PI; Suzanne Lunsford from Wright State University, co-PI), Submitted, May 31, 2008.

248. Dionysios D. Dionysiou, Kevin O'Shea, Judy Westrick, Chris Williams and Don Deis, First Annual Progress Report for the EPA-STAR Project "Monitoring, Photochemical Fate, and Oxidative Degradation by UV and Solar-based Technologies of Cyanotoxins in Freshwater Estuaries," (D. D. Dionysiou, PI; Kevin O'Shea, Judy Westrick, Chris Williams/Don Deis, co-PIs), Submitted to EPA STAR Program, June 2008.

249. Dionysios D. Dionysiou, Third Annual Project Report for the DuPont Young Professor Grant, submitted to DuPont, June 2008.

250. Dionysios D. Dionysiou, 2008 Annual Project Report for the NSF Project titled "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation", submitted to NSF, April 1, 2009.

251. Dionysios D. Dionysiou, Kevin O'Shea, Judy Westrick, Chris Williams and Don Deis, Second Annual Progress Report for the EPA-STAR Project "Monitoring, Photochemical Fate, and Oxidative Degradation by UV and Solar-based Technologies of Cyanotoxins in Freshwater Estuaries," (D. D. Dionysiou, PI; Kevin O'Shea, Judy Westrick, Chris Williams/Don Deis, co-PIs), Submitted to EPA STAR Program, June 2009.

252. Dionysios D. Dionysiou, 2009 Annual Project Report for the NSF Project titled "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation", submitted to NSF, April 1, 2010.

253. Dionysios D. Dionysiou, Kevin O'Shea, Judy Westrick, Chris Williams and Don Deis, Third Annual Progress Report for the EPA-STAR Project "Monitoring, Photochemical Fate, and Oxidative Degradation by UV and Solar-based Technologies of Cyanotoxins in Freshwater Estuaries," (D. D. Dionysiou, PI; Kevin O'Shea, Judy Westrick, Chris Williams/Don Deis, co-PIs), Submitted to EPA STAR Program, June 2010.

254. Mary Ellen Tuccillo, Glen Boyd, Dionysios Dionysiou, and Jo Anne Shatkin, Final Project Report, Submitted to Water Research Foundation for the project on "Challenges and Opportunities of Nanomaterials in Drinking Water", Submitted on May 2, 2011.

255. Dionysios D. Dionysiou, Final Report for the project "Destruction of Cyanobacterial Toxins in Water with Germicidal UV-254 nm-based Homogeneous and Solar-based Heterogeneous Advanced Oxidation Processes," Water Resources Research Institute, US Geological Survey (USGS) through the Ohio State University Research Foundation, (PI: Dionysios D. Dionysiou), Submitted, May 18, 2011.

256. Dionysios D. Dionysiou, Kevin O'Shea, Judy Westrick, Chris Williams and Don Deis, Final Report for the EPA-STAR Project "Monitoring, Photochemical Fate, and Oxidative Degradation by UV and Solar-based Technologies of Cyanotoxins in Freshwater Estuaries," (D. D. Dionysiou, PI; Kevin O'Shea, Judy Westrick, Chris Williams/Don Deis, co-PIs), Submitted to EPA STAR Program, June 2011.

257. Dionysios D. Dionysiou, Final Project Report for the NSF Project titled "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation", submitted to NSF, August 8, 2011.

258. Dionysios D. Dionysiou, First Annual Progress Report on the project "Collaborative Research: Degradation Mechanism of Cyanotoxins Using Novel Visible Light-Activated Titania (TiO_2) Photocatalysts", submitted to NSF, July 9, 2011.

F. PLENARY/KEYNOTE PRESENTATIONS AND INVITED LECTURES (* denotes presenter)

259. Dionysios D. Dionysiou*, Photocatalytic Degradation of Organic Contaminants Using a Rotating Disk Photocatalytic Reactor. Podium presentation *at the Chemical Engineering Seminar Series*, May 9, 2002, University of Cincinnati.

260. Dionysios D. Dionysiou*, Advanced Oxidation Technologies in Water and Air Purification. Invited Lecture, Department of Chemical and Environmental Engineering, Toledo University, December 13, 2002, Toledo, Ohio.

261. Dionysios D. Dionysiou*, The Role of Advanced Oxidation Technologies in Water Treatment-New Environmental Paradigms. Invited Lecture, Department of Civil and Environmental Engineering, University of Cyprus, June 26, 2003, Nicosia, Cyprus.

262. Dionysios D. Dionysiou*, TiO_2 as an Efficient Semiconductor Catalyst for Environmental Applications. Invited Lecture, Department of Electrical, Computer Engineering and Computer Science, University of Cincinnati, May 7, 2004, Cincinnati, Ohio.

263. Dionysios D. Dionysiou*, Exploring Room Temperature Ionic Liquids in Environmental Applications. Invited Lecture in the *Symposium in Honor of Professor Gregory Botsaris*, Tufts University, May 7, 2005, Medford, Massachusetts.

264. Dionysios D. Dionysiou*, Advanced Oxidation Nanotechnologies for Water Treatment: Development and Application in the Destruction of Cyanobacterial Toxins. *Invited Lecture at the School of Public and Environmental Affairs, Indiana University*, March 23, 2006, Bloomington, Indiana.

265. Dionysios D. Dionysiou*, Advanced Oxidation Nanotechnologies for Water Treatment: Development and Application in the Destruction of Cyanobacterial Toxins. *Invited Lecture at the Environmental Engineering and Science Program, Washington University* in St. Louis, April 14, 2006, Saint Lois, Missouri.

266. Dionysios D. Dionysiou*, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker and Suzanne Lunsford, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Development and Application in the Destruction of Cyanobacterial Toxins. Invited Plenary Presentation at *The 2nd International Symposium on Environmental Nanotechnology (ISENT),* Gwangju Institute of Science and Technology, November 3, 2006, Gwangju, South Korea.

267. Dionysios D. Dionysiou*, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, and Jody A. Shoemaker, Ultraviolet- and Solar Light-Activated Nanostructured TiO_2 Photocatalysts: Application in the Destruction of Cyanotoxins, a Group of Emerging Drinking Water Contaminants. Keynote Presentation at *the Symposium on Sustainability in Water Supply: Catalytic Control of Emerging Micropollutants, Division of Sustainability of Energy, Food and Water, paper 13, 233rd American Chemical Society National Meeting (ACS)*, 2007, March 25-29, Chicago, Illinois.

268. Dionysios D. Dionysiou*, George P. Anipsitakis, Aditya Rastogi, Qiujing Yang, and Souhail Al-Abed, Sulfate Radical-Based Advanced Oxidation Processes. Invited Lecture at *the Special ACS and AIChE Symposium on Applied Chemistry and Engineering, Division of Industrial and Engineering Chemistry Research, paper 35, 233rd American Chemical Society National Meeting (ACS)*, March 25-29, 2007, Chicago, Illinois.

269. Dionysios D. Dionysiou*, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, and Jody A. Shoemaker, Destruction of Cyanotoxins using Ultraviolet- and Solar Light-

Activated Nanostructured TiO_2 Photocatalysts. Invited Web-cast Presentation, United States Environmental Protection Agency, April 5, 2007, Cincinnati, Ohio.

270. Dionysios D. Dionysiou*, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker, and Suzanne Lunsford, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application in the Destruction of Cyanobacterial Toxins. Invited Presentation, Institute of Physical Chemistry, NCSR Demokritos Research Center, June 25, 2007, Aghia Paraskevi Attikis, Greece.

271. Dionysios D. Dionysiou*, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker, and Suzanne Lunsford, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application in the Destruction of Cyanobacterial Toxins. Invited Presentation, Patras Technological University, June 27, 2007, Patras, Greece.

272. Dionysios D. Dionysiou*, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker, and Suzanne Lunsford, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application in the Destruction of Cyanobacterial Toxins. Invited Presentation, June 29, 2007, University of Patras, Greece.

273. Dionysios D. Dionysiou*, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker, and Suzanne Lunsford, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application in the Destruction of Cyanobacterial Toxins. Invited Presentation, July 3, 2007, University of Cyprus, Nicosia, Cyprus.

274. Dionysios D. Dionysiou*, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker, and Suzanne Lunsford, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application in the Destruction of Cyanobacterial Toxins. Invited Presentation, Ecole des Mines de Nantes, July 12, 2007, Nantes, France.

275. Dionysios D. Dionysiou*, Maria G. Antoniou, Hyeok Choi, Yongjun Chen, Miguel Pelaez, Armah A. de la Cruz, and Jody A. Shoemaker, Destruction of Cyanobacterial Toxins by UV/TiO_2 Photocatalysis–Synthesis of TiO_2 Films and Reaction Intermediates. Keynote Presentation at The 12th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications, September 24-27, 2007, Niagara Falls, New York.

276. Dionysios D. Dionysiou*, Novel Methods for the Synthesis of Nanostructured Materials and Evaluation for the Removal of Emerging Environmental Contaminants from Water. Invited Plenary Presentation at The 3rd International Symposium on Environmental Nanotechnology and Natural Organic Matter (ISENT), October 19, 2007, Gwangju, South Korea.

277. Dionysios D. Dionysiou*, Sol-Gel Synthesis of Mesoporous Nanostructured TiO_2 Materials and Applications for the Destruction of Emerging Organic Contaminants in Water. Invited Keynote Presentation at The NATO Advanced Research Workshop (ARW) Sol-Gel Approaches to Materials for Pollution Control, Water Purification and Soil Remediation, October 25-27, 2007, Kiev, Pushcha-Voditsa, Ukraine.

278. Dionysios D. Dionysiou*, Environmental Catalysis and Chemistry in Water Remediation, Invited Lecture, January 31, 2008, University of North Carolina-Charlotte, North Carolina.

279. Dionysios D. Dionysiou*, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application in the Destruction of Cyanobacterial Toxins. Invited Lecture, Michigan State University, February 21, 2008, East Lancing, Michigan.

280. Dionysios D. Dionysiou*, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application in the Destruction of Cyanobacterial Toxins. Invited Lecture, March 28, 2008, Florida International University, Miami, Florida.

281. Dionysios D. Dionysiou*, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application in the Destruction of Cyanobacterial Toxins. Invited Lecture, April 11, 2008, NASA John C. Stennis Space Center, Stennis, Mississippi.

282. Dionysios D. Dionysiou*, Maria G. Antoniou, Miguel Pelaez, Hyeok Choi, Armah. A. de la Cruz and Jody A. Shoemaker, Application of UV and Visible-Light Activated Nanostructured TiO_2 Catalysts for the Destruction of Emerging Organic Contaminants in Water. Invited Keynote Presentation in the *Session: Environmental, Health, and Safety Aspects of Engineered Nanomaterials, Division of Analytical Chemistry, 236th American Chemical Society (ACS) National Meeting,* August 17-21, 2008, Philadelphia, Pennsylvania.

283. Dionysios D. Dionysiou*, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application in the Destruction of Cyanobacterial Toxins. Invited Lecture, February 5, 2009, Duke University, Durham, North Carolina.

284. Dionysios D. Dionysiou*, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application in the Destruction of Cyanobacterial Toxins. Invited Lecture, March 4, 2009, UV Trojan Technologies, London, Ontario, Canada.

285. Dionysios D. Dionysiou*, Sulfate Radical-Based Advanced Oxidation Processes. Invited Lecture, December 7, 2009, Denmark Technical University, Copenhagen, Denmark.

286. Dionysios D. Dionysiou*, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application. Invited Web Seminar Lecture for the Course Physicochemical Processes in Environmental Engineering of Michigan State University, December 14, 2009.

287. Dionysios D. Dionysiou*, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application. Case Study for the Destruction of Cyanobacterial Toxins. Invited Lecture, January 15, 2010, Missouri University of Science and Technology, Rolla, Missouri.

288. Dionysios D. Dionysiou*, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application. Case Study for the Destruction of Cyanobacterial Toxins. Invited Lecture, February 12, 2010, University of Houston, Houston, Texas.

289. Dionysios D. Dionysiou*, Sulfate Radical-Based Advanced Oxidation Processes. Invited Lecture, April 30, 2010, University of Houston, Houston, Texas.

290. Dionysios D. Dionysiou*, Sulfate Radical-Based Advanced Oxidation Processes. Invited Lecture, May 14, 2010, Duke University, Durham, North Carolina.

291. Dionysios D. Dionysiou*, UV, Solar and Visible Light-Activated Non-Metal Doped TiO_2 Photocatalyst: Application to the Destruction of the Cyanotoxin Microcystin-LR. Invited Lecture, September 5, 2010, Chinese Academy of Sciences, Beijing, China.

292. Dionysios D. Dionysiou*, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application. Case Study for the Destruction of Cyanobacterial Toxins. Invited Lecture, September 7, 2010, Dalian University of Technology, Dalian, China.

293. Dionysios D. Dionysiou, TiO_2 and Visible Light-Activated (VLA) Non-metal Containing TiO_2 - Synthesis, Characterization and Mechanistic Aspects in the Photocatalytic Degradation of Cyanotoxins in Water. Invited Oral Presentation at the *Workshop on Nanomaterials for Water Treatment- Opportunities and Barriers* (Event organized by Technalia), October 4-6, 2010, Derio, Spain.

294. Dionysios D. Dionysiou*, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment and Reuse: Fundamentals, Development and Applications. Invited Plenary Presentation, 2011 International Conference on Water Reuse and Desalination (2011 ICWRD), April 10-12, 2011, Daegu, South Korea.

295. Dionysios D. Dionysiou*, TiO_2 and Visible Light-Activated Non-metal containing TiO_2 - Synthesis, Characterization and Mechanistic Aspects in the Photocatalytic Degradation of Cyanotoxins in Water. Invited Plenary Presentation at *The 2011 International Symposium on Environmental Science and Technology*, June 1-4, 2011, Dongguan, Guangdong Province, China.

296. Dionysios D. Dionysiou*, Advanced Oxidation Technologies and Nanotechnologies for

Water Treatment: Fundamentals, Development and Applications. Invited Lecture, June 6, 2011, South China Normal University, Guangzhou, China.

297. Dionysios D. Dionysiou*, Destruction of Cyanotoxins in Water Using Homogeneous and Heterogeneous Advanced Oxidation Technologies and Nanotechnologies. Special Invited Lecture on the Celebration of the 50th Anniversary of Demokritos Research Center, September 6, 2011, Aghia Paraskevi, Greece.

298. Dionysios D. Dionysiou*, Destruction of Cyanotoxins in Water Using Homogeneous and Heterogeneous Advanced Oxidation Technologies and Nanotechnologies. Special Invited Inaugural Lecture of the NIREAS International Water Research Center, September 16, 2011, University of Cyprus, Nicosia, Cyprus.

299. Dionysios D. Dionysiou*, TiO_2 and Visible Light-Activated Non-metal containing TiO_2 - Synthesis, Characterization and Mechanistic Aspects in the Photocatalytic Degradation of Cyanotoxins in Water. Invited Lecture, October 14, 2011, The University of Texas at Arlington, Arlington, Texas.

G. INVITED AND GENERAL PRESENTATIONS (* denotes presenter)

300. D. G. Hadjinikolaou*, D. D. Dionysiou, G. Fountoukides, D. Kekos, B. J. Macris, Simultaneous Production of Superoxide Dismutase and Catalase from *Saccharomyces cerevisiae* grown on acid whey hydrolysate. Poster paper presented at the *6th European Congress on Biotechnology*, June 1993, Florence, Italy.

301. Dionysios D. Dionysiou*, Marina Tsianou* and Gregory D. Botsaris*, Interfacial Crystallization of Calcium Magnesium Acetate (CMA) Deicer. Poster paper presented at the *Symposium of the Center for Environmental Management (CEM),* November 1993, Tufts University, Medford, Massachusetts.

302. Dionysios D. Dionysiou* and Marina Tsianou, Crystallization of Calcium Magnesium Acetate (CMA) for Environmental Applications, Poster paper presented at the *Student-Faculty Conference on Pollution Prevention*, October 22-23, 1994, MIT, Cambridge, Massachusetts.

303. Dionysios D. Dionysiou*, Marina Tsianou, and Gregory Botsaris, A Process for the Production of Deicing Compositions Comprising Calcium Magnesium Acetate Salts. Poster paper presented at the *AIChE Annual Meeting.* Student Poster Paper Session, paper 170-9S, November 13-18, 1994, San Francisco, California.

304. Marina Tsianou, Dionysios D. Dionysiou, and Gregory D. Botsaris*, An Extractive Crystallization Process for Calcium Magnesium Acetate. Podium presentation at the *AIChE Annual Meeting*, November 1995, Miami, Florida.

305. George Xomeritakis*, Dionysios D. Dionysiou, and Y. S. Lin, Fabrication of Thin Metallic Membranes by MOCVD and Sputtering. Poster paper presented at the *AIChE Annual Meeting*, November 1996, Chicago, Illinois.

306. Dionysios D. Dionysiou*, Ganesh Balasubramanian, Makram T. Suidan, Isabelle Baudin, and Jean-Michel Laîné, TiO_2 Rotating Disk Photocatalytic Reactor: Characterization and Evaluation for the Degradation of Organic Pollutants in Water. Podium presentation at *The 1998 Pan-American Workshop on Commercialization of Advanced Oxidation Technologies,* June 26-30, 1998, London, Ontario, Canada.

307. Dionysios D. Dionysiou*, Ganesh Balasubramanian, Makram T. Suidan, Isabelle Baudin and Jean-Michel Laîné, Photocatalytic Degradation of 4-Chlorobenzoic Acid with UV Radiation and TiO_2 Powders or TiO_2 Composite Ceramic Balls. Poster paper presented at *The 1998 Pan-American Workshop on Commercialization of Advanced Oxidation Technologies*, June 26-30, 1998, London, Ontario, Canada.

308. Dionysios D. Dionysiou*, Ganesh Balasubramanian, Makram T. Suidan, Isabelle Baudin and Jean-Michel Laîné, Thin Film Photocatalytic Reactor for the Destruction of Organic Contaminants in Industrial Wastewater and Drinking Water. Podium presentation at the *AIChE Annual Meeting, paper 3a,* November 15-20, 1998, Miami, Florida.

309. Dionysios D. Dionysiou*, Ganesh Balasubramanian Makram T. Suidan, and Isabelle Baudin and Jean-Michel Laîné, Rotating Disk Photocatalytic Reactor (RDPR): An Innovative System for the Photocatalytic Degradation of Organic Contaminants in Water. Podium presentation at the *Advanced Seminar Series in Environmental Engineering*, April 30, 1999, University of Cincinnati, Cincinnati, Ohio.

310. Dionysios D. Dionysiou*, Makram T. Suidan, Isabelle Baudin and Jean-Michel Laîné, Photocatalytic Degradation of 4-Chlorobenzoic Acid Using TiO_2 Nanoparticles. Poster paper presented at the *Symposium of Nano-, Micro-, and Mesoscale Technologies in Science and Engineering*, May 13, 1999, University of Cincinnati, Cincinnati, Ohio.

311. Dionysios D. Dionysiou*, Ann M. Kern, Amid P. Khodadoust, Makram T. Suidan, Isabelle Baudin and Jean-Michel Laîné, Rotating Disk Photocatalytic Reactor (RDPR): Continuous Flow Operation for the Degradation of Phenol, Chlorinated Phenols, and Lindane in Water. Podium presentation at *The Fourth International Conference on TiO_2 Photocatalytic Purification and Treatment of Water and Air*, May 23-28, 1999, Albuquerque, New Mexico, USA.

312. Dionysios D. Dionysiou*, Ganesh Balasubramanian, Makram T. Suidan, Evangelia Bekou, Isabelle Baudin and Jean-Michel Laîné, Photocatalytic Treatment of Organic Contaminants in Water Using a Novel TiO_2 Rotating Disk Reactor. Podium presentation at the *Research Symposium: Physical and Chemical Processes, WEFTEC' 99, the 72nd Annual Water Environment Federation (WEF) Conference and Exposition*, October 9-13, 1999, New Orleans, Louisiana.

313. Dionysios D. Dionysiou*, Rotating Disk Photocatalytic Reactor (RDPR): Development, Characterization, and Evaluation for the Degradation of Organic Contaminants in Water. Invited Podium presentation at *the Special Seminar Series in Environmental Engineering*, February 24, 2000, University of Cincinnati, Cincinnati, Ohio.

314. Dionysios D. Dionysiou*, Makram T. Suidan, Isabelle Baudin and Jean-Michel Laîné, Rotating Disk Photocatalytic Reactor: Influence of Mass Transfer and Incident Light Intensity on the Degradation Rates. Podium presentation at the *219th National Meeting of American Chemical Society (ACS), Division of Ind. & Eng. Chem., paper 292*, March 26-30, 2000, San Francisco.

315. Dionysios D. Dionysiou*, Makram T. Suidan, Isabelle Baudin and Jean-Michel Laîné, Rotating Disk Photocatalytic Reactor: Influence of Electron Acceptors on the Degradation Efficiency of Organic Compounds in Water. Podium presentation at *The Fifth International Conference on TiO_2 Photocatalytic Purification and Treatment of Water and Air*, June 26-30, 2000, London, Ontario, Canada.

316. Arturo A. Burbano*, Dionysios D. Dionysiou, Teri L. Richardson, and Makram T. Suidan, Mechanistic Studies for the Treatment of MTBE-Contaminated Water in situ using the Fenton's Reagent. Poster paper presented at *The Sixth International Conference on Advanced Oxidation Technologies for Water and Air Remediation*, June 26-30, 2000, London, Ontario, Canada.

317. Dionysios D. Dionysiou*, Makram T. Suidan, Isabelle Baudin, Jean-Michel Laîné, and Tiehong L. Huang, TiO_2-Assisted Photocatalytic Degradation of 4-Chlorobenzoic Acid in Water: Effect of Type of Catalyst, Catalyst Loading, Initial Contaminant Concentration, and Solution Characteristics. Podium presentation at the *1st World Water Congress of the International Water Association (IWA),* July 3-7, 2000, Paris, France.

318. Arturo A. Burbano*, Dionysios D. Dionysiou, Teri L. Richardson and Makram T. Suidan, Treatment of MTBE-Contaminated Water Using the Fenton's Reagent. Poster presentation at *The 2nd Annual Graduate Student Research/Scholarship Forum at the University of Cincinnati*, March 2-3, 2001, Cincinnati, Ohio.

319. Dionysios D. Dionysiou*, Makram T. Suidan, Isabelle Baudin, and Jean-Michel Laîné, Degradation of Organic Contaminants in Drinking Water and Wastewater Using a Rotating Disk Photocatalytic Reactor: Factors Affecting Interfacial Transport, Adsorption and Reaction. Podium presentation at the *221st ACS National Meeting*, April 1-5, 2001, San Diego, California.

320. Dionysios D. Dionysiou*, Makram T. Suidan, Isabelle Baudin, and Jean-Michel Laîné, Rotating Disk Photocatalytic Reactor (RDPR): Fundamental and Applied Studies for its Development and Evaluation for the Destruction of Recalcitrant Organic Contaminants in Water. Podium presentation at *The First International Congress on Ultraviolet Technologies*, June 14-16, 2001, Washington, D.C.

321. Dionysios D. Dionysiou*, Arturo A. Burbano, Makram T. Suidan, George P. Anipsitakis, Isabelle Baudin, and Jean-Michel Laîné, The Role of Hydrogen Peroxide as a Supplemental Electron Acceptor on the Photocatalytic Degradation of Methyl *tert*-Butyl Ether (MTBE) and Other Persistent Organic Contaminants in Drinking Water: The Ranges of Synergism and Inhibition. Podium presentation at the *AWWA Annual Conference*, June 17-21, 2001, Washington, D.C.

322. Dionysios D. Dionysiou*, Rotating Disk Photocatalytic Reactor: Development, Characterization, and Evaluation for the Destruction of Recalcitrant Organic Contaminants in Water. Podium presentation *at the 75th Annual Conference of Ohio Water Environment Association (OWEA)*, Dayton, Ohio, June 25-28, 2001.

323. Arturo A. Burbano*, George P. Anipsitakis, Dionysios D. Dionysiou, Teri L. Richardson and Makram T. Suidan, Treatment of MTBE-Contaminated Water: Studies on MTBE Mineralization using the Fenton's Reagent. Podium Presentation at *The 7th International Conference on Advanced Oxidation Technologies for the Treatment of Water and Air (AOT-7)*, June 25-29, 2001, Niagara Falls, Ontario, Canada.

324. Arturo A. Burbano*, Dionysios D. Dionysiou, Makram T. Suidan, Isabelle Baudin and Jean Michel Laîné. Development of Highly Active, Mechanically-Stable Thin Films of TiO_2 Nanocatalyst Immobilized on Stainless Steel: Performance Evaluation Using a Rotating Disk Photocatalytic Reactor (RDPR). Poster Presentation at the *6th International Conference on TiO_2 Photocatalytic Purification and Treatment of Water and Air (TiO_2-6)*, June 25-29, 2001, Niagara Falls, Ontario, Canada.

325. Dionysios D. Dionysiou* and Makram T. Suidan, Oxidation of Organic Contaminants Using a Thin-Film Rotating Disk Photocatalytic Reactor (RDPR): Effect of Oxygen Concentration in the Gas Phase and Influence of Oxygen Mass Transport in the Liquid Film. Podium Presentation at the *Symposium of Environmental Chemistry Awards, the 222nd ACS National Meeting*, paper 89, August 26-30, 2001, Chicago, Illinois.

326. Arturo A. Burbano*, Dionysios D. Dionysiou, Teri L. Richardson and Makram T. Suidan, Remediation of MTBE-Contaminated Water: Studies on the Degradation of MTBE Intermediates Using the Fenton's Reagent. Podium Presentation at the Symposium "*Remediation of Water and Soil Contaminated with Gasoline Oxygenates: In-situ and Ex-situ Treatment Technologies", Environmental Chemistry Division, the 222nd ACS National Meeting*, paper 29, August 26-30, 2001, Chicago, Illinois.

327. Dionysios D. Dionysiou*, *The Role of Hydrogen Peroxide as a Supplemental Electron Acceptor on the Photocatalytic Destruction of the Gasoline Oxygenate Methyl tert-Butyl Ether (MTBE) and Other Persistent Organic Pesticides in Drinking Water: The Ranges of Synergism and Inhibition,* Podium Presentation at *The 2001 Annual Conference of Ohio American Water Works Association (OAWWA)*, August 28-31, 2001, Cleveland, Ohio.

328. Arturo A. Burbano*, Dionysios D. Dionysiou, Teri L. Richardson, and Makram T. Suidan, Treatment of MTBE-Contaminated Water Using the Fenton's Reagent. Podium

Presentation at *The 2001 Annual Conference of Ohio American Water Works Association (OAWWA)*, August 28-31, 2001, Cleveland, Ohio.

329. Arturo A. Burbano*, Dionysios D. Dionysiou, Teri L. Richardson, and Makram T. Suidan, Treatment of MTBE-Contaminated Water Using the Fenton's Reagent. Podium presentation at the *WEFTEC' 2001, the 74th Annual Water Environment Federation (WEF) Conference and Exposition*, October 13-17, 2001, Atlanta, Georgia.

330. George P. Anipsitakis* and Dionysios D. Dionysiou, Degradation of Chloroaromatics in Water with Transition Metal-Catalyzed Chemical Oxidation. Poster presentation at *The 3rd Annual Graduate Student Research/Scholarship Forum at The University of Cincinnati*, February 15, 2002, Cincinnati, Ohio.

331. Qiaolin Yang* and Dionysios D. Dionysiou, The role of Hydrophobic Room Temperature Ionic Liquids as *Green Solvents* for Extraction and *In-situ* Destruction of Chloroaromatic Hydrocarbons Using Advanced Oxidation Technologies. Poster presentation at *The 3rd Annual Graduate Student Research/Scholarship Forum at the University of Cincinnati*, February 15, 2002, Cincinnati, Ohio.

332. Arturo A. Burbano* and Dionysios D. Dionysiou, Development of Highly-Active, Mechanically Stable Thin Films of TiO_2 Nanocatalyst Immobilized on Stainless Steel: Performance Evaluation Using a Rotating Disk Photocatalytic Reactor (RDPR). Poster presentation at *The 3rd Annual Graduate Student Research/Scholarship Forum at The University of Cincinnati*, February 15, 2002, Cincinnati, Ohio.

333. Arturo A. Burbano*, Dionysios D. Dionysiou, Teri L. Richardson and Makram T. Suidan, Studies on the Remediation of MTBE-Contaminated Water Using the Fenton's Reagent. Podium presentation at the *International World Water Congress (IWA),* April 7-12, 2002, Melbourne, Australia.

334. Arturo A. Burbano*, Dionysios D. Dionysiou, Makram T. Suidan, Isabelle Baudin and Jean Michel Laîné, Performance Evaluation of Highly-Active, Mechanically Stable Thin Films of TiO_2 Nanocatalyst Immobilized on Stainless Steel: Influence of Selected Process Conditions Using a Rotating Disk Photocatalytic Reactor. Poster Presentation at the *International World Water Congress (IWA),* April 7-12, 2002, Melbourne, Australia.

335. George P. Anipsitakis* and Dionysios D. Dionysiou, Degradation of Organic Contaminants in Water and Wastewater with Transition Metal-Catalyzed Chemical Oxidation. Poster Presentation at the *General Session of the Division of Environmental Chemistry, paper 122, 223rd ACS National Meeting,* April 7-11, 2002, Orlando, Florida.

336. Arturo A. Burbano, Dionysios D. Dionysiou*, Teri L. Richardson and Makram T. Suidan, MTBE Degradation Using the Fenton's Reagent: The Effect of Ferrous and Ferric Iron Mixtures on the Efficiency of the Overall Reaction. Poster Presentation at the *General Session of the Division of Environmental Chemistry, paper 123, 223rd ACS National Meeting,* April 7-11, 2002, Orlando, Florida.

337. Evangelia Bekou, Qiaolin Yang and Dionysios D. Dionysiou*, Quantification of Chlorinated Phenols in Hydrophobic Room Temperature Ionic Liquids Using HPLC. Poster Presentation, *Division of Analytical Chemistry, paper 121, the 223rd ACS National Meeting,* April 7-11, 2002, Orlando, Florida.

338. George P. Anipsitakis* and Dionysios D. Dionysiou, Degradation of Organic Contaminants in Water and Wastewater with Transition Metal-Catalyzed Chemical Oxidation. *Poster Presentation at the SCI-MIX Session of the 223rd ACS National Meeting,* April 7-11, 2002, Orlando, Florida.

339. Arturo A. Burbano, Dionysios D. Dionysiou*, Teri L. Richardson and Makram T. Suidan, MTBE Degradation Using the Fenton's Reagent: The Effect of Ferrous and Ferric Iron Mixtures on the Efficiency of the Overall Reaction. *Poster Presentation at the SCI-MIX Session of the 223rd ACS National Meeting,* April 7-11, 2002, Orlando, Florida.

340. Evangelia Bekou, Qiaolin Yang and Dionysios D. Dionysiou*, Quantification of Chlorinated Phenols in Hydrophobic Room Temperature Ionic Liquids Using HPLC, *Poster Presentation at the SCI-MIX Session of the 223rd ACS National Meeting,* April 7-11, 2002, Orlando, Florida.

341. Ganesh Balasubramanian, Arturo A. Burbano, Dionysios D. Dionysiou* and Makram T. Suidan, Development of Highly-Active, Mechanically-Stable Thin Films of TiO_2 Nanocatalyst Immobilized on Stainless Steel. Poster Presentation at the *Division of Colloid and Surface Chemistry, Session: Chemistry and the Environment in the 21st Century: Environmental Catalysis, paper 136, the 223rd ACS National Meeting,* April 7-11, 2002, Orlando, Florida.

342. Evangelia Bekou* and Dionysios D. Dionysiou, Extraction of Organic Contaminants from Water Using Room Temperature Water-Immiscible Ionic Liquids, Podium Presentation at the *Environmental Engineering and Science Series,* University of Cincinnati, Cincinnati, May 24, 2002.

343. Qiaolin Yang* and Dionysios D. Dionysiou, Use of Water Immiscible Room Temperature Ionic Liquids for Extraction and *In-situ* Destruction of Chlorinated Aromatics. Podium Presentation at the *76th Annual Ohio Water Environment Association (OWEA)* Conference, June 27, 2002, Dayton, Ohio.

344. Qiaolin Yang, Evangelia Bekou, Dionysios D. Dionysiou*, Ru-Ying Qian, and Gregory D. Botsaris, Liquid-Liquid Extraction and *In Situ* Degradation of Chlorinated Aromatics in Room Temperature Ionic Liquids Using Advanced Oxidation Technologies. Podium Presentation at the *224th ACS National Meeting,* Session: *Ionic Liquids as Green Solvents-Progress and Prospects-Separations*, August 18-22, 2002, Boston, Massachusetts.

345. Ganesh Balasubramanian*, Dionysios D. Dionysiou and Makram T. Suidan, Development of Highly-Active, Mechanically-Stable Thin Films of TiO_2 Nanocatalyst Immobilized on

Stainless Steel. Podium Presentation at *the 224th ACS National Meeting, Session:* August 18-22, 2002, Boston, Massachusetts.

346. Arturo A. Burbano*, Dionysios D. Dionysiou and Makram T. Suidan, Influence of Oxidant Concentration and Process Configuration on the Remediation of MTBE-Contaminated Water Using the Fenton's Reagent. OAWWA Annual Student Award Podium Presentation at the *American Water Works Association 2002 Ohio Section Conference (OAWWA*), September 16-19, 2002, Columbus, Ohio.

347. George P. Anipsitakis* and Dionysios D. Dionysiou, Development of a Highly Efficient Transition Metal-Mediated Chemical Oxidation Process for the Degradation of Recalcitrant Organic Contaminants in Water. OAWWA Annual Student Award Podium Presentation at the *American Water Works Association 2002 Ohio Section Conference (OAWWA),* September 16-19, 2002, Columbus, Ohio.

348. George P. Anipsitakis* and Dionysios D. Dionysiou, Destruction of Persistent Organic Contaminants in Water with a Novel and Highly Efficient Oxidizing Reagent. Poster Presentation at the *34th Mid-Atlantic Industrial & Hazardous Waste Con*ference, September 20-21, 2002, New Brunswick, New Jersey.

349. Qiaolin Yang* and Dionysios D. Dionysiou, Application of Water-Immiscible Room Temperature Ionic Liquids in Extraction and *in-situ* Photolytic Degradation of Chlorophenols. Poster Presentation at the *34th Mid-Atlantic Industrial & Hazardous Waste Con*ference, September 20-21, 2002, New Brunswick, New Jersey.

350. Arturo A. Burbano*, Dionysios D. Dionysiou, Teri L. Richardson, and Makram T. Suidan, Treatment of MTBE-Contaminated Water Using the Fenton's Reagent. Poster Presentation, *WEFTEC' 2002, the 75th Annual Water Environment Federation (WEF) Conference and Exposition*, September 28-October 2, 2002, Chicago, Illinois.

351. George P. Anipsitakis* and Dionysios D. Dionysiou, Development of a More Efficient Transition-Metal Based Chemical Oxidant than the Fenton's Reagent for the Degradation of Chloroaromatics. Podium Presentation, *WEFTEC' 2002, the 75th Annual Water Environment Federation (WEF) Conference and Exposition*, September 28-October 2, 2002, Chicago, Illinois.

352. Qiaolin Yang and Dionysios D. Dionysiou*, Degradation of Organic Contaminants in Room Temperature Ionic Liquids Using Advanced Oxidation Technologies. Podium Presentation at the *AIChE 2002 Annual Meeting, Session: Reactions in Benign Solvents,* November 3-8, Indianapolis, Indiana.

353. George P. Anipsitakis* and Dionysios D. Dionysiou, Destruction of Chlorinated Aromatics in Water with Sulfate Radicals - An Alternative Oxidizing System Based on the Fenton's Reagent Chemistry. Podium Presentation at *The 8th International Conference on Advanced Oxidation Technologies for Water and Air Remediation (AOTs-8*), November 17-22, 2002, Toronto, Ontario, Canada.

354. Arturo A. Burbano*, Dionysios D. Dionysiou and Makram T. Suidan, MTBE Oxidation Using Fenton's Reagent: Effect of Humic Substances-Based Iron Chelates at Neutral pH. Podium Presentation at *The 8th International Conference on Advanced Oxidation Technologies for Water and Air Remediation (AOTs-8*), November 17-22, 2002, Toronto, Ontario, Canada.

355. Qiaolin Yang and Dionysios D. Dionysiou*, *In-situ* Destruction of Chlorinated Aromatics in Water-Immiscible Room Temperature Ionic Liquids Using Advanced Oxidation Technologies. Podium Presentation at *The 8th International Conference on Advanced Oxidation Technologies for Water and Air Remediation (AOTs-8*), November 17-22, 2002, Toronto, Ontario, Canada.

356. George P. Anipsitakis* and Dionysios D. Dionysiou, Water Purification with Chemical Oxidation. Poster Presentation at the 2003 UC Engineering Graduate Studies Fair, February 11, 2003, Engineering Research Center, University of Cincinnati.

357. Qianrui Wang* and Dionysios D. Dionysiou, Mercury Pollution in Aquatic Systems. Podium Presentation at the Advanced Seminar in Environmental Engineering, February 21, 2003, Dept. of Civil & Environmental Engineering, University of Cincinnati.

358. George P. Anipsitakis* and Dionysios D. Dionysiou, Novel Chemical Oxidation Process for Water Purification. Poster Presentation at the 2003 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 7, 2003, Cincinnati, Ohio.

359. Qianrui Wang*, Daekeun Kim, George A. Sorial, and Dionysios D. Dionysiou, Mercury Pollution in Natural Waters. Poster Presentation at the 2003 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 7, 2003, Cincinnati, Ohio.

360. George P. Anipsitakis* and Dionysios D. Dionysiou, Alternative Oxidizing Systems for Water Decontamination based on the Fenton Reagent-Radical Generation through the Coupling of Transition Metals with Oxidants. Podium Presentation at the Advanced Seminar in Environmental Engineering, Dept. of Civil & Environmental Engineering, April 4, 2003, University of Cincinnati, Cincinnati, Ohio.

361. Qiaolin Yang and Dionysios D. Dionysiou*, Photolytic Degradation of Organic Contaminants in Room Temperature Ionic Liquids-Solvent Regeneration and Reuse. Poster Presentation at the *Green Engineering: Defining the Principles* conference, May 18-22, 2003, Sandestin, Florida.

362. Yongjun Chen, Ganesh Balasubramanian, Arturo Burbano, and Dionysios D. Dionysiou*, Preparation of Novel Titanium Dioxide Coatings for the Development of Sustainable Photocatalytic Reactors. Poster Presentation at the *Green Engineering: Defining the Principles* conference, May 18-22, 2003, Sandestin, Florida.

363. George P. Anipsitakis* and Dionysios D. Dionysiou, Activation of Common Oxidants by Transition Metals for Water Decontamination. Oral Presentation at the *Division of Environmental Chemistry, 226th ACS National Meeting,* September 7-11, 2003, New York.

364. Qianrui Wang*, Daekeum Kim, Dionysios D. Dionysiou, George A. Sorial, and Dennis Timberlake, Mercury Pollution in Natural Waters. Poster Presentation at the *226th ACS National Meeting,* September 7-11, 2003, New York.

365. Qiaolin Yang* and Dionysios D. Dionysiou, Photolytic Destruction of Organic Compounds in Room Temperature Ionic Liquids. Oral Presentation at the *Division of Industrial and Engineering Chemistry, 226th ACS National Meeting,* September 7-11, 2003, New York.

366. Yongjun Chen, George P. Anipsitakis and Dionysios D. Dionysiou*, Green Implications of Advanced Oxidation Technologies in the Treatment of Contaminated Water. A Case Study - TiO_2 Photocatalytic Degradation of Organic Contaminants Using Anatase/Rutile Mixed Oxide Phases. Oral Presentation at the *Division of Industrial and Engineering Chemistry, 226th ACS National Meeting,* September 7-11, 2003, New York.

367. Yongjun Chen* and Dionysios D. Dionysiou, Development of High Performance TiO_2 Photocatalytic Coatings for Water Purification. Poster Presentation at the 65th Annual Ohio Section American Works Association Conference, September 22-26, 2003, Cincinnati, Ohio.

368. George P. Anipsitakis* and Dionysios D. Dionysiou, Securing Water Quality with Advanced Oxidation Technologies. Poster Presentation at the 65th Annual Ohio Section American Works Association Conference, September 22-26, 2003, Cincinnati, Ohio.

369. Dionysios D. Dionysiou* and George P. Anipsitakis, Role of UV-Based Advanced Oxidation Technologies for Water Treatment and Their Potential to Assist in Issues Dealing with Homeland Security. Oral Presentation at the 65th Annual Ohio Section American Works Association Conference, Cincinnati, Ohio, September 22-26, 2003.

370. George P. Anipsitakis, Lauren N. Ford, and Dionysios D. Dionysiou*, Interaction of Transition Metals with Oxidants for Radical Generation and Water Decontamination. Oral Presentation at *the 9th International Conference on Advanced Oxidation Technologies for Water and Air Remediation (AOTs-9)*, October 25-30, 2003, Montreal, Quebec, Canada.

371. Arturo A. Burbano, Dionysios D. Dionysiou*, and Makram T. Suidan, Influence of Oxidant Concentration on the Remediation of MTBE-Contaminated Water Using Fenton Reagent. Poster Presentation at *the 9th International Conference on Advanced Oxidation Technologies for Water and Air Remediation (AOTs-9)*, October 25-30, 2003, Montreal, Quebec, Canada.

372. Qiaolin Yang and Dionysios D. Dionysiou*, UV-based Photolytic Destruction of Chlorinated Phenols and Polycyclic Aromatic Hydrocarbons in Room Temperature Ionic

Liquids. Poster Presentation at *the 9th International Conference on Advanced Oxidation Technologies for Water and Air Remediation (AOTs-9)*, October 25-30, 2003, Montreal, Quebec, Canada.

373. Yongjun Chen and Dionysios D. Dionysiou*, Preparation of Super-Hydrophilic TiO_2 Coatings with Enhanced Photocatalytic Activity and Good Mechanical Stability for Water Purification. Oral Presentation at *the 8th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications (TiO_2-8)*, October 25-30, 2003, Montreal, Quebec, Canada.

374. Yongjun Chen* and Dionysios D. Dionysiou, Development of Novel Photocatalytic Coatings for Air and Water Purification and Disinfection. Poster Presentation at the Conference *Ultraviolet Treatment of Air*, International Ultraviolet Association, November 6, 2003, Chicago, Illinois.

375. Hyeok Choi*, Maria Antoniou, and Dionysios D. Dionysiou, The Potential of UV/TiO_2 Photocatalysis for the Destruction of Toxins in Air and Water and its Implications as a "Green" Remediation Technology. Poster Presentation at the Conference *Ultraviolet Treatment of Air*, International Ultraviolet Association, November 6, 2003, Chicago, Illinois.

376. Yongjun Chen and Dionysios D. Dionysiou*, Development of High Performance TiO_2 Photocatalytic Coatings for the Purification, Disinfection, and Recycle of Water and Air in Space Applications. Poster Presentation at the *Habitation 2004-International Conference on Space Habitation Research and Technology Development*, January 4-7, 2004, Orlando, Florida.

377. Rachel C. Copeland*, Dionysios D. Dionysiou, and Darren Lytle, Arsenic Desorption from Distribution System Solids. Poster Presentation at the 2004 Graduate Student Research/ Scholarship Forum of the University of Cincinnati, March 12, 2004, Cincinnati, Ohio.

378. Maria G. Antoniou* and Dionysios D. Dionysiou, Applications of Advanced Oxidation Technologies in Water Purification: Removal of Microbial and Industrial Toxins. Poster Presentation at the 2004 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 12, 2004, Cincinnati, Ohio.

379. Hyeok Choi* and Dionysios D. Dionysiou, Fabrication of Nanoporous and Ultra-Thin TiO_2 Photocatalytic Membranes Using Surfactant-Based Self-Assembling Sol-Gel Method. Poster Presentation at the 2004 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 12, 2004, Cincinnati, Ohio.

380. Kai Zhang*, Hyeok Choi, Dionysios D. Dionysiou, George A. Sorial and Daniel B. Oerther, Examining the Initiation of Biofouling in Membrane Bioreactors for Wastewater Treatment. Poster Presentation at the 2004 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 12, 2004, Cincinnati, Ohio.

381. Yongjun Chen* and Dionysios D. Dionysiou, Study of the Preparation Parameters on the Photocatalytic Activity of TiO_2 Powder Films Immobilized on Stainless Steel. Poster Presentation at the 2004 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 12, 2004, Cincinnati, Ohio.

382. Yongjun Chen and Dionysios D. Dionysiou*, Role of Process Conditions on the Properties of Immobilized TiO_2 Films on Stainless Steel Prepared Using Combined Alkoxide Sol-gel and Colloidal Suspension Preparation Methods. Oral Presentation at the Symposium *Nanoscience and Nanotechnology, Division of Colloid and Surface Chemistry, 227th ACS National Meeting,* March 28-April 1, 2004, Anaheim, California.

383. Kyesang Yoo, Hyeok Choi, Yongjun Chen, and Dionysios D. Dionysiou*, Environmental Implications of TiO_2 Nanostructured Materials Prepared by Sol-gel Methods and Other Wet Chemistry Procedures. Oral Presentation at the Symposium *Nanotechnology and the Environment: Nano-Catalysis for Environmental Technologies, Division of Industrial and Engineering Chemistry, 227th ACS National Meeting,* March 28-April 1, 2004, Anaheim, California.

384. Hyeok Choi*, Kai Zhang, Dionysios D. Dionysiou, Daniel B. Oerther and George A. Sorial, Membrane Filtration Performance with Activated Sludge of Continuous Stirred-Tank Reactor and Plug Flow Reactor for the Treatment of Paper Mill Wastewater: Membrane Fouling. Oral Presentation, *International Water Association Specialty Conference on Water Environment-Membrane Technology*, June 2004, Seoul, Korea.

385. Hyeok Choi*, Kyesang Yoo, and Dionysios D. Dionysiou, TiO_2 Nanoparticles and Films for the Fabrication of Photocatalytic Membranes Using Ionic Liquid- and Surfactant-based Self Assembling Sol-Gel Methods. Poster Presentation, *The Eighth International Conference on Inorganic Membranes*, July, 2004, Cincinnati, Ohio.

386. George P. Anipsitakis* and Dionysios D. Dionysiou, UV/Transition Metal-mediated Activation of Common Oxidants in Water. Oral Presentation at the Symposium *Environmental Chemistry Awards, Division of Environmental Chemistry, 228th ACS National Meeting,* August 22-26, 2004, Philadelphia, Pennsylvania, *paper 139.*

387. Yongjun Chen and Dionysios D. Dionysiou*, Immobilized TiO_2 Powder Films on Stainless Steel Prepared Using Combined Alkoxide Sol-Gel and Colloidal Suspension Preparation Methods II: The Role of Calcination Temperature. Oral Presentation at the Symposium *Oxidation and Reduction Technologies for Water Treatment, Division of Environmental Chemistry, 228th ACS National Meeting,* August 22-26, 2004, Philadelphia, Pennsylvania, *paper 9*.

388. Hyeok Choi* and Dionysios D. Dionysiou, Preparation of Anatase Nanostructured TiO_2 Particles using Surfactant-assisted Sol-Gel Methods. Poster Presentation, *Division of Environmental Chemistry, 228th ACS National Meeting,* August 22-26, 2004, Philadelphia, Pennsylvania, *paper 240*.

389. Yongjun Chen* and Dionysios D. Dionysiou, Strategy for Preparing High Performance TiO_2 Photocatalytic Films Immobilized on Stainless Steel Substrate for Water Purification. Poster Presentation, *Division of Environmental Chemistry, 228th ACS National Meeting,* August 22-26, 2004, Philadelphia, Pennsylvania, *paper 241*.

390. Yongjun Chen* and Dionysios D. Dionysiou, Strategy for Preparing High Performance TiO_2 Photocatalytic Films Immobilized on Stainless Steel Substrate for Water Purification. Poster Presentation, *SCI-MIX Session of the 228th ACS National Meeting,* August 22-26, 2004, Philadelphia, Pennsylvania, *paper 241*.

391. Maria G. Antoniou* and Dionysios D. Dionysiou, Advanced Oxidation Technologies for the Treatment of Water Contaminated with Cyanobacterial Toxins. Invited Oral Presentation, *The 2004 Annual Conference of Ohio American Water Works Association (OAWWA)*, September 14-17, 2004, Toledo, Ohio.

392. Yongjun Chen* and Dionysios Dionysiou, Design and Synthesis of Immobilized TiO_2 Photocatalytic Films with Enhanced Photocatalytic Activity and Good Mechanical Stability for Water Purification. Oral Presentation, Student Paper Competition, *The 2004 Annual Conference of Ohio American Water Works Association (OAWWA)*, September 14-17, 2004, Toledo, Ohio.

393. Rachel C. Copeland*, Darren Lytle and Dionysios Dionysiou, Arsenic Desorption from Distribution System Solids. Poster Presentation. Student Poster Competition, *The 2004 Annual Conference of Ohio American Water Works Association (OAWWA)*, September 14-17, 2004, Toledo, Ohio.

394. George P. Anipsitakis* and Dionysios D. Dionysiou, Effect of UV and Transition Metals for the Activation of Oxidants in Water. Oral Presentation, *WEFTEC' 2004, the 77th Annual Water Environment Federation (WEF) Conference and Exposition*, October 2-6, 2004, Ernest N. Morial Convention Center, New Orleans, Louisiana.

395. Kai Zhang*, Hyeok Choi, George A. Sorial, Dionysios D. Dionysiou and Daniel B. Oerther, Examining the Initiation of Biofouling in Membrane Bioreactors Treating Pulp and Paper Wastewater. Oral Presentation at *WEFTEC' 2004, the 77th Annual Water Environment Federation (WEF) Conference and Exposition*, October 2-6, 2004, Ernest N. Morial Convention Center, New Orleans, Louisiana.

396. George P. Anipsitakis* and Dionysios D. Dionysiou, Activation of Oxone, Potassium Persulfate, and Hydrogen Peroxide Using UV and Transition Metals. Oral Presentation at *the 10th International Conference on Advanced Oxidation Technologies for Water and Air Remediation (AOTs-10)*, October 24-28, 2004, San Diego, California.

397. Yongjun Chen, Maria G. Antoniou and Dionysios D. Dionysiou*, Immobilization of nano-TiO_2 Photocatalytic Films on Stainless Steel with Enhanced Photocatalytic Activity and Good Mechanical Properties for Water Purification. Oral Presentation at *the 9th*

International Conference on TiO_2 Photocatalysis: Fundamentals and Applications (TiO_2-9), October 24-28, 2004, San Diego, California.

398. Maria G. Antoniou and Dionysios D. Dionysiou*, Advanced Water Purification: Towards Meeting NASA's Advanced Life Support Requirements. Poster Presentation at *the 9th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications (TiO_2-9)*, October 24-28, 2004, San Diego, California.

399. Hyeok Choi and Dionysios D. Dionysiou*, Preparation of Nanostructured TiO_2 Photocatalysts Using Surfactant-Assisted Sol-Gel Method for Environmental Applications. Poster Presentation at *the 9th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications (TiO_2-9)*, October 24-28, 2004, San Diego, California.

400. Rachel C. Copeland*, Darren Lytle and Dionysios D. Dionysiou, Arsenic Desorption from Drinking Water Distribution System Solids. Oral Presentation at *The 1st International Conference on Environmental Science and Technology*, January 23-26, 2005, New Orleans, Louisiana.

401. Hyeok Choi* and Dionysios D. Dionysiou, A New Approach to Mesoporous Nanocrystalline Titania from Sol-Gel Method Modified with Surfactant and Ionic Liquid. Poster Presentation at the *2005 Graduate Student Research/Scholarship Forum of the University of Cincinnati*, March 4, 2005, Cincinnati, Ohio.

402. Hyeok Choi and Dionysios D. Dionysiou*, Preparation of Nanocrystalline TiO_2 Particles, Films and Membranes Using Ionic Liquids and Surfactant-Assisted Sol-Gel Methods. Invited Oral Presentation at the *Symposium on Nanotechnology and the Environment: Treatment/Remediation Using Nanotechnology, Division of Industrial and Engineering Chemistry, 229th American Chemical Society National Meeting (ACS)*, March 13-17, 2005, San Diego, California.

403. Yongjun Chen and Dionysios D. Dionysiou*, Immobilization of Transparent nano-TiO_2 Photocatalytic Films on Stainless Steel for Water Purification. Poster Presentation at the *Symposium on Nanotechnology and the Environment: Treatment/Remediation Using Nanotechnology, Division of Industrial and Engineering Chemistry, 229th American Chemical Society National Meeting (ACS)*, March 13-17, 2005, San Diego, California.

404. Maria G. Antoniou, Yongjun Chen, and Dionysios D. Dionysiou*, Treatment of Space Wastewater Contaminants Using Highly Active TiO_2 Films Prepared with Sol-Gel Methods. Poster Presentation at the *Symposium on Nanotechnology and the Environment: Treatment/Remediation Using Nanotechnology, Division of Industrial and Engineering Chemistry, 229th American Chemical Society National Meeting (ACS)*, March 13-17, 2005, San Diego, California.

405. Shirish Agarwal*, Souhail R. Al-Abed and Dionysios D. Dionysiou, Studies on Adsorption of 2-Chlorobiphenyl on Sediments and Sediment Components. Poster

Presentation and Sci-Mix, Division of Environmental Chemistry, paper 110, *229th American Chemical Society National Meeting (ACS)*, March 13-17, 2005, San Diego, California.

406. Brian J. Yates*, Elizabeth Myre*, Daniel Breetz*, Julia E. Sowash and Dionysios D. Dionysiou. Poster Presentation-Competition, U.S. E.P.A. Conference for Student Design Projects Highlighting People, Prosperity and the Planet (P3), May 14-16, 2005, Washington, D.C.

407. Hyeok Choi*, Elias Stathatos and Dionysios D. Dionysiou, Preparation of Nanostructured TiO_2 Photocatalytic Films and Membranes Using Sol-Gel Methods Modified with Surfactants. Invited Oral Presentation at *the 19th North American Catalysis Society Meeting (NAM)*, May 22-27, 2005, Philadelphia, Pennsylvania.

408. Rachel C. Copeland*, Darren Lytle and Dionysios D. Dionysiou, Arsenic Desorption from Drinking Water Distribution Systems and Iron-Based Column Media. Oral Presentation at *The 2005 AWWA Annual Conference and Exhibition*, June 12-15, 2005, San Francisco, California.

409. Yongjun Chen and Dionysios D. Dionysiou*, High Performance TiO_2 Photocatalytic Coatings and Reactors for the Purification, Disinfection and Recycle of Water in Space Applications. Oral Presentation, *35th International Conference on Environmental System (ICES) and the 8th European Symposium on Space Environmental Control Systems (ESSECS)*, July 11-14, 2005, Rome, Italy.

410. Hyeok Choi and Dionysios D. Dionysiou*, Preparation of Nanostructured Photocatalytic TiO_2 Films and Membranes Using Sol-Gel Methods Modified with Surfactant Micelles for Wastewater Treatment and Reuse in Space. Oral Presentation at the *35th International Conference on Environmental System (ICES) and the 8th European Symposium on Space Environmental Control Systems (ESSECS)*, July 11-14, 2005, Rome, Italy.

411. Daniel B. Oerther*, Kai Zhang, Hyeok Choi, Dionysios D. Dionysiou, George A. Sorial, Interdisciplinary Research on Membrane Biofouling Connecting Engineering and Microbiology. Oral Presentation at the *2005 Research and Educational Conference, Association of Environmental Engineering and Science Professors (AEESP)*, July 23-27, 2005, Potsdam, New York.

412. Dionysios D. Dionysiou*, Exploring Room Temperature Ionic Liquids and other Environmentally Friendly Solvents for the Regeneration of Three-Way Catalytic Converters. Oral Presentation at the *Workshop on the Regeneration of Automotive Three-Way Catalytic Converters*, July 27, Department of Chemistry, University of Cyprus, Nicosia, Cyprus.

413. Erick R. Bandala, Roberto C. Moreno*, Ernesto Juárez, Pierrick Girard, and Dionysios D. Dionysiou, Solar Driven TiO_2 Photocatalytic Disinfection of Water Using a Low

Radiative Solar Collector. Oral Presentation in the ISES 2005 Solar World Congress, August 6-12, Orlando, Florida, USA.

414. Hyeok Choi, Anna C. Sofranko, and Dionysios D. Dionysiou*, Self-assembling and Template-based Sol-gel Methods for the Synthesis of Nanocrystalline TiO_2. Oral Presentation, Division of Environmental Chemistry, *Symposium on Environmental Nanotechnology*, paper 60, 330th American Chemical Society National Meeting (ACS), August 28-Sep. 1, 2005, Washington DC.

415. Y. Liu*, H. Choi, D. D. Dionysiou and G. V. Lowry, Particle-scale Understanding of TCE Hydrodechlorination in Water by Poorly Ordered Nanoiron. Oral Presentation, Division of Environmental Chemistry, *Symposium on Environmental Nanotechnology*, paper 75, 330th American Chemical Society National Meeting (ACS), August 28-Sep. 1, 2005, Washington DC.

416. Yongjun Chen* and Dionysios D. Dionysiou, Preparation and Characterization of Immobilized Porous TiO_2 Photocatalytic Films on Stainless Steel. Poster Presentation, Division of Colloid and Surface Chemistry, paper 189, 330th American Chemical Society National Meeting (ACS), August 28-Sep. 1, 2005, Washington DC.

417. Brian J. Yates, Elizabeth Myre, Daniel Breetz, and Dionysios D. Dionysiou*, Biotemplating of Nanoparticles for Environmental Applications Using Phytomining Techniques. Poster Presentation, Division of Environmental Chemistry, *Symposium on Environmental Nanotechnology*, paper 191, 330th American Chemical Society National Meeting (ACS), August 28-Sep. 1, 2005, Washington DC.

418. Maria G. Antoniou*, Armah A. de la Cruz, Dionysios D. Dionysiou, Application of Immobilized Titanium Dioxide Photocatalysis for the Treatment of Microcystin-LR. Poster Presentation at the *International Symposium on Cyanobacterial Harmful Algal Blooms (ISOC-HAB)*, September 6-10, 2005, Durham, North Carolina.

419. Rachel C. Copeland*, Darren Lytle and Dionysios D. Dionysiou, Arsenic Desorption from Drinking Water Distribution Systems and Iron-Based Column Media. Oral Presentation at the *67th AWWA Ohio Section Annual Conference,* September 19-22, 2005, Columbus, Ohio.

420. Maria G. Antoniou*, Armah A. de la Cruz, and Dionysios D. Dionysiou, Fundamental Studies on the Degradation of Cyanobacterial Toxins by Sulfate Radicals. Poster Presentation at the *67th AWWA Ohio Section Annual Conference,* September 19-22, 2005, Columbus, Ohio.

421. Yongjun Chen* and Dionysios D Dionysiou, Immobilization of Thick TiO_2 films on Stainless Steel for Drinking Water Purification. Poster Presentation at the *67th AWWA Ohio Section Annual Conference,* September 19-22, 2005, Columbus, Ohio.

422. Maria G. Antoniou*, Armah A. de la Cruz, Dionysios D. Dionysiou, Application of Immobilized Titanium Dioxide Photocatalysis for the Treatment of Microcystin-LR, Poster Presentation at *The 2005 Ralph and Helen Oesper Symposium*, University of Cincinnati, October 14-15, 2005.

423. George P. Anipsitakis and Dionysios D. Dionysiou*, Sulfate Radical Pathway of Oxidation and Heterogeneous Cobalt/Peroxymonosulfate Reagent. Oral Presentation at the *11th International Conference on Advanced Oxidation Technologies for Treatment of Water, Ai, and Soil*, October 23-27, 2005, Chicago, Illinois.

424. Hyeok Choi* and Dionysios D. Dionysiou, Ionic Liquid-Assisted Sol-Gel Methods Modified with Surfactant Molecules for the Synthesis of Highly Porous Nanostructured TiO_2 Photocatalyst. Oral Presentation at the *10th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, October 23-27, 2005, Chicago, Illinois.

425. Hyeok Choi, Anna C. Sofranko and Dionysios D. Dionysiou*, Self-Assembling and Template-Based Sol-Gel Methods for the Synthesis of Nanocrystalline TiO_2: Particles, Films and Membranes. Oral Presentation at the *10th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, October 23-27, 2005, Chicago, Illinois.

426. Hyeok Choi*, Maria G. Antoniou, Armah A. de la Cruz and Dionysios D. Dionysiou, Development and Environmental Applications of TiO_2 Photocatalytic Membranes and Films. Poster Presentation at the *10th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, October 23-27, 2005, Chicago, Illinois.

427. Yongjun Chen and Dionysios D. Dionysiou*, Synthesis of Porous TiO_2-P25 Composite Films for Degradation of Organic Contaminants in Water. Poster Presentation at the *10th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, October 23-27, 2005, Chicago, Illinois.

428. Yongjun Chen* and Dionysios D. Dionysiou, Development of Highly Active Porous TiO_2-P25 Composite Thick Films for Water Purification. Oral Presentation, Session 165, *Fundamentals of Environmental Catalysis I*, Paper 165f, 2005 Annual Meeting of American Institute of Chemical Engineers (AIChE), October 30-November 4, 2005, Cincinnati, Ohio.

429. George P. Anipsitakis* and Dionysios D. Dionysiou, Sulfate Radical-Based Advanced Oxidation Technologies. Oral Presentation, Session 247, *Applications of Environmental Catalysis II*, Paper 247a, 2005 Annual Meeting of American Institute of Chemical Engineers (AIChE), October 30-November 4, 2005, Cincinnati, Ohio.

430. Hyeok Choi* and Dionysios D. Dionysiou, Environmental Applications of Photocatalytic TiO_2 Films and Membranes. Poster Presentation, Environmental Division, Session *Advances in Environmental Technology*, Poster 143l, 2005 Annual Meeting of American Institute of Chemical Engineers (AIChE), October 30-November 4, 2005, Cincinnati, Ohio.

431. Maria G. Antoniou*, Armah A. de la Cruz and Dionysios D. Dionysiou, Cyanobacterial Toxins: Treating a New Generation of Water Contaminants. Poster Presentation at the AIChE Annual Meeting, Environmental Division Group 9, Session Poster: *Advances in Environmental Technology*, Poster 143t, October 30 - November 4, 2005, Cincinnati, Ohio.

432. Kai Zhang*, Hyeok Choi, George A. Sorial, Dionysios D. Dionysiou, and Daniel B. Oerther, Examining the Initiation of Biofouling in Membrane Bioreactors Treating Pulp and Paper Wastewater. Oral Presentation at *WEFTEC' 2005, the 78th Annual Water Environment Federation (WEF) Conference and Exposition*, October 29–November 2, 2005, Washington, D.C.

433. Hyeok Choi, Anna C. Sofranko, Dionysios D. Dionysiou*, Self-assembled Nanostructured Crystalline TiO_2 Thin Films and TiO_2/Al_2O_3 Composite Membranes with Simultaneous Photocatalytic, Disinfection, Separation, and Anti-biofouling Properties. Invited Oral Presentation at the Symposium on *Nanomaterials and the Environment*, Materials Research Society (MRS) Fall Meeting, Nov. 28 – Dec. 2, 2005, Boston, Massachusetts.

434. George P. Anipsitakis and Dionysios D. Dionysiou*, Sulfate-radical-based Advanced Oxidation Technologies: Generation, Mechanism and Implications. Invited Oral Presentation, *Environmental and Green Chemistry,* Session *Free Radical Chemistry in the Environment, Pacifichem 2005*, December 15-20, 2005, Honolulu, Hawaii, USA.

435. Maria G. Antoniou and Dionysios D. Dionysiou*, Degradation of Cyanotoxins by Hydroxyl and Sulfate Radicals. Poster Presentation, *Environmental and Green Chemistry,* Session *Free Radical Chemistry in the Environment, Pacifichem 2005*, December 15-20, 2005, Honolulu, Hawaii, USA.

436. Bhargavi Subramanian and Dionysios D. Dionysiou*, Extraction and Photodegradation of Polycyclic Aromatic Hydrocarbons in Ionic Liquids. Poster Presentation, *Environmental and Green Chemistry,* Session *Ionic Liquids: Perspectives on the Present, Visions for the Future, Pacifichem 2005*, December 15-20, 2005, Honolulu, Hawaii, USA.

437. Maria G. Antoniou*, Armah A. de la Cruz, and Dionysios D. Dionysiou, Detoxification of Cyanobacterial-contaminated Water with Sulfate Radicals. Poster Presentation at the *2006 Graduate Student Research/Scholarship Forum of the University of Cincinnati*, March 3, 2006, Cincinnati, Ohio.

438. Amid P. Khodadoust*, Srividya Chandrasekaran, Dionysios D. Dionysiou. D. Preliminary Assessment of Imidazolium-based Ionic Liquids for Extraction of Organic Contaminants from Soils. Oral Presentation at the *231st American Chemical Society (ACS) National Meeting, Division of Industrial and Engineering Chemistry, Paper 180*, March 26-30, 2006, Atlanta, Georgia.

439. Hyeok Choi*, Maria G. Antoniou and Dionysios D. Dionysiou, Photocatalytic Destruction of Microcystin-LR Using N-Doped Mesoporous TiO_2 under Visible Light Irradiation. Poster Presentation at *The 2006 Ohio Nanotechnology Summit*, Poster M-4, April 4-5, 2006, Columbus, Ohio, USA.

440. Chen, Yongjun* and Dionysios D. Dionysiou, Preparation of Nano-TiO_2 Photocatalytic Films Coated on Stainless Steel with Enhanced Photocatalytic Activity and Good Mechanical Stability for Water Purification. Poster Presentation at *The 2006 Ohio Nanotechnology Summit*, April 4-5, 2006, Columbus, Ohio, USA.

441. Maria G. Antoniou, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Application of Immobilized Titanium Dioxide Photocatalysis for the Treatment of Microcystin–LR. Poster Presentation at *The 2006 Ohio Nanotechnology Summit*, Poster B-5, April 4-5, 2006, Columbus, Ohio, USA.

442. Bornschein, B., Bowling, J., Buncher, C.R., Clark, C.S., Clark, R., Dionysiou, D., Kaneshiro, E.S., Loper, J.C., Maynard, J.B., Miller, M.C., Oerther, D.B., Smirniotis, P., Spitz, H.B., Stalcup, A., and Uber, J., Quality of Drinking Water is Vital to Quality of Life. Poster Presentation at the *UC Showcase 2006*, April 21-22, 2006, University of Cincinnati, Cincinnati, Ohio.

443. Zhang, K., Choi, H., Dionysiou, D.D., and Oerther, D.B., Analyzing Biofouling in a Membrane Bioreactor Treating Early Planetary Base Wastewater. Poster Presentation at the *UC Showcase 2006*, April 21-22, 2006, University of Cincinnati, Cincinnati, Ohio.

444. Hyeok Choi, Maria G. Antoniou, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Nanostructured TiO_2 Photocatalytic Films and Membranes with Hierarchical Properties for the Destruction of Cyanobacterial Toxins. Poster Presentation at *The Second International Nanotechnology Conference on Communication and Cooperation (INC2)*, May 15-18, 2006, Arlington, Virginia.

445. George P. Anipsitakis* and Dionysios D. Dionysiou, Chemically Induced Redox Reactions in Water Treatment. Oral Presentation, *World Water and Environmental Resources Congress 2006*, Omaha, May 21-25, 2006, Nebraska.

446. Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz*, Jody A. Shoemaker and Dionysios D. Dionysiou, Detoxification of Cyanobacterial Toxin-contaminated Water Using TiO_2 Photocatalytic Films. Poster Presentation at the *HPLC 2006 Conference*, June 17-23, 2006, San Francisco, California.

447. Deborah H. Metz*, Dionysios D. Dionysiou, and Michael R. Schock, The Effect of Fluoride Additives on Lead Solubility and Corrosion. Poster Presentation at the Water Science & Research Division, *The 2006 AWWA Annual Conference and Exposition*, June 11-15, 2006, San Antonio, Texas.

448. Hyeok Choi, Maria G. Antoniou, Dionysios D. Dionysiou*, Synthesis of Nanostructured TiO_2 Thin Films and Membranes and Their Applications in the Destruction of Cyanobacterial Toxin (Microcystin-LR). Oral Presentation, *1st European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP)*, September 7-9, 2006, Chania, Greece.

449. George P. Anipsitakis, Maria G. Antoniou, Armah A. de la Cruz, and Dionysios D. Dionysiou*, Oxidation of Organic Contaminants Using Sulfate Radical-Based Advanced Oxidation Processes. Oral Presentation at the *1st European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP)*, September 7-9, 2006, Chania, Greece.

450. Maria G. Antoniou, Armah A. de la Cruz, and Dionysios D. Dionysiou*, Destruction of Cyanotoxin-contaminated Water with Sulfate Radicals. Poster Presentation at the *1st European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP)*, September 7-9, 2006, Chania, Greece.

451. Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou*, Photocatalytic Degradation of the Hepatotoxin Microcystin-LR with Mesoporous TiO_2 Thin Films. Poster Presentation at the *1st European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP)*, September 7-9, 2006, Chania, Greece.

452. Maria G. Antoniou and Dionysios D. Dionysiou*, Application of Immobilized Titanium Dioxide Photocatalysts for the Reclamation of Water from NASA's Spacecrafts Waste Streams. Poster Presentation at the *1st European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP)*, September 7-9, 2006, Chania, Greece.

453. Aditya Rastogi, Souhail Al-Abed, and Dionysios D. Dionysiou*, Destruction of PAHs and PCBs in Water Using Sulfate Radical-Based Catalytic Advanced Oxidation Processes. Poster Presentation at the *1st European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP)*, September 7-9, 2006, Chania, Greece.

454. Yongjun Chen and Dionysios D. Dionysiou*, A Comparative Study on Physicochemical Properties and Photocatalytic Behavior of Porous TiO_2-P25 Composite Films and Porous TiO_2 films Coated on Stainless Steel. Poster Presentation at the *1st European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP)*, Sept. 7-9, 2006. Chania, Greece.

455. C. Raillard*, V. Hêquet, H. Choi, D. D. Dionysiou, P. Le Cloirec, Photocatalytic Oxidation of VOCs: Influence of Structural Properties and Humidity. Poster Presentation, 1st European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP), September 7-9, 2006, Chania, Greece.

456. Hyeok Choi* and Dionysios Dionysiou, Thermally Stable Porous Nanocrystalline TiO_2 Photocatalysts Prepared by Sol-gel Method Modified with Water Immiscible Room Temperature Ionic Liquid: Synthesis, Properties and Environmental Applications. Invited Oral Presentation, *Session of Environmental Chemistry Awards, Division of Environmental Chemistry, 232nd American Chemical Society (ACS) National Meeting*, September 10-14, 2006, San Francisco, California.

457. Hyeok Choi*, Maria G. Antoniou, Armah. A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou, Surfactant Templated Sol-Gel Synthesis of Mesoporous TiO_2 Photocatalysts and their Application in the Destruction of Cyanobacterial Toxins. Oral Presentation at the *Symposium on Catalysis for Water Purification and Remediation, Division of Environmental Chemistry, 232nd American Chemical Society (ACS) National Meeting*, September 10-14, 2006, San Francisco, California.

458. Maria G. Antoniou*, Hyeok Choi, Armah. A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou, Application of Mesoporous TiO_2 Photocatalysts for the Degradation of Microcystin-LR: The Degradation Pathway. Oral Presentation at the *Symposium on Catalysis for Water Purification and Remediation, Division of Environmental Chemistry, 232nd American Chemical Society (ACS) National Meeting*, September 10-14, 2006, San Francisco, California.

459. Gauthan Jegadeesan, Vijayakumar Sundaram, Hyeok Choi*, Dionysios D. Dionysiou, and Souhail R. Al-Abed, Arsenic Removal Using Sol-Gel Synthesized Titanium Dioxide Nanoparticles. Poster Presentation of the *General Papers, Division of Environmental Chemistry, 232nd American Chemical Society (ACS) National Meeting*, September 10-14, 2006, San Francisco, California.

460. Shirish Agarwal*, Souhail R. Al-Abed, Dionysios D. Dionysiou, Pd/Mg Bimetallic Corrosion Cells for Dechlorinating PCBs. Poster Presentation, *Session of General Papers, Division of Environmental Chemistry, 232nd American Chemical Society (ACS) National Meeting*, September 10-14, 2006, San Francisco, California.

461. Shirish Agarwal*, Souhail R. Al-Abed, Dionysios D. Dionysiou, Pilot Scale Reactor for Electrochemical Dechlorination of Model Chlorinated Contaminants. Poster Presentation, Session of *General Papers, Division of Environmental Chemistry, 232nd American Chemical Society (ACS) National Meeting*, September 10-14, 2006, San Francisco, California.

462. Aditya Rastogi*, Souhail R. Al-Abed, and Dionysios D. Dionysiou, Treatment of PAHs and PCBs using Sulfate Radical-based Oxidation Processes. Poster Presentation of the *General Papers, Division of Environmental Chemistry, 232nd American Chemical Society (ACS) National Meeting*, September 10-14, 2006, San Francisco, California.

463. Bhargavi Subramanian*, Vasudevan V. Namboodiri, and Dionysios D. Dionysiou, Extraction of Pentachlorophenol (PCP) from Soils using Environmentally Benign Lactic Acid Solutions. Poster Presentation at the *Symposium on Green Chemistry and*

Engineering Poster Session, Division of Industrial and Engineering Chemistry, 232nd American Chemical Society (ACS) National Meeting, September 10-14, 2006, San Francisco, California.

464. Kai Zhang*, Hyeok Choi, Mauyi Wu, Ting Lu, George A. Sorial, Dionysios D. Dionysiou, and Daniel B. Oerther, Ecology-Based Analysis of Irreversible Biofouling in Membrane Bioreactors. Oral Presentation, *Symposium on Structure, Interactions, and Reactivity at Microbial Surfaces, Division of Colloid and Surface Chemistry, 232nd American Chemical Society (ACS) National Meeting*, September 10-14, 2006, San Francisco, California.

465. Kai Zhang, Hyeok Choi, Mauyi Wu, George A. Sorial, Dionysios D. Dionysiou, and Daniel B. Oerther*, An Ecology-Based Analysis of Irreversible Membrane Biofouling in MBRs. Oral Presentation at the *International Water Association (IWA) Specialty Conference on Biofilm Systems VI*, September 24-27, 2006, Amsterdam, Netherlands.

466. Maria G. Antoniou, Hyeok Choi, Armah. A. de la Cruz, Jody Shoemaker and, Dionysios D. Dionysiou*, Application of Photocatalytic Films for the Destruction of the Cyanotoxin Microcystin-LR: Reaction Intermediates. Oral Presentation at *The 11th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, Sept. 25-28, 2006, Pittsburgh, Pennsylvania.

467. Hyeok Choi*, Maria G. Antoniou, Armah. A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou, Mesoporous TiO_2 Thin Films: Photocatalytic Destruction of Microcystin-LR. Poster Presentation at *The 11th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, Sept. 25-28, 2006, Pittsburgh, Pennsylvania.

468. Yongjun Chen* and Dionysios D. Dionysiou, Design and Evaluation of TiO_2-P25 Composite Photocatalytic Films with Bimodal Mesoporosity. Poster Presentation at *The 11th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, Sept. 25-28, 2006, Pittsburgh, Pennsylvania.

469. Maria G. Antoniou, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Detoxification of Cyanobacterial-contaminated Water with Sulfate Radicals. Poster Presentation at *The 12th International Conference on Advanced Oxidation Technologies for the Treatment of Water, Soil and Air*, Sept. 25-28, 2006, Pittsburgh, Pennsylvania.

470. Shirish Agarwal, Souhail R. Al-Abed, Dionysios D. Dionysiou*, Dechlorination of 2-Chlorobiphenyl with Pd/Mg Bimetallic Particles. Poster Presentation at the *12th International Conference on Advanced Oxidation Technologies for Treatment of Water Air and Soil (AOTs-12),* September 25-28, 2006, Pittsburgh, Pennsylvania.

471. Aditya Rastogi*, Souhail Al-Abed, and Dionysios D. Dionysiou, Iron-Peroxymonosulfate: A Novel Sulfate Radical Based Advanced Oxidation Technology for Degradation of PCBs. Oral Presentation at *The 12th International Conference on*

Advanced Oxidation Technologies for Treatment of Water Air and Soil, Sept. 25-28, 2006, Pittsburgh, Pennsylvania.

472. Qiujing Yang and Dionysios D. Dionysiou*, Heterogeneous Activation of Oxone Using Nanoparticles Co/TiO_2. Poster Presentation at *The 12th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil (AOTs-12)*, Sept. 25-28, 2006, Pittsburgh, Pennsylvania.

473. Deborah H. Metz*, Dionysios D. Dionysiou, and Michael R. Schock, Predicting Lead Dissolution: Effect of Fluoride on Lead Solubility & Corrosion. Oral Presentation at *The 68th Ohio American Water Works Association (OAWWA) Annual Meeting*, October 10-13, 2006, Cleveland, Ohio.

474. Maria G. Antoniou*, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou, Degradation of the Cyanobacterial Toxin Microcystin-LR with Thin Nano-TiO_2 Photocatalytic Films: Reaction Intermediates. Oral Presentation at *The 68th Ohio American Water Works Association (OAWWA) Annual Meeting*, October 10-13, 2006, Cleveland Ohio.

475. Kai Zhang*, Hyeok Choi, Dionysios D. Dionysiou, and Daniel B. Oerther, Application of Membrane Bioreactors in the Preliminary Treatment of Early Planetary Base Wastewater for Long Term Space Missions. Oral Presentation, *79th Annual Water Environment Federation Conference and Exposition (WEFTEC)*, October 21- 25, 2006, Dallas, Texas.

476. J. Stinson*, H. Choi, S. Lunsford, and D. D. Dionysiou, Electrochemical Catecholamine Sensors Integrated with Nanotechnology. Poster Presentation at *The 2006 Joint International Meeting of the 210th Meeting of The Electrochemical Society and XXI Congreso de la Sociedad Mexicana de Electroquimica, Session for Chemical Sensors 7: Chemical and Biological Sensors and Analytical Systems*, October 29-November 3, 2006, Cancun, Mexico.

477. Shirish Agarwal*, Souhail R. Al-Abed, Dionysios D. Dionysiou, Dechlorination of 2-Chlorobiphenyl with Pd/Mg Bimetallic Particles. Poster Presentation at the *2006 Ralph and Helen Oesper Symposium*, University of Cincinnati, October 27-28, 2006, Cincinnati, Ohio.

478. Aditya Rastogi*, Souhail Al-Abed, and Dionysios D. Dionysiou, Iron-Peroxymonosulfate: A Novel Sulfate Radical Based Advanced Oxidation Technology for Degradation of PCBs. Poster Presentation at the *2006 Ralph and Helen Oesper Symposium*, University of Cincinnati, October 27-28, 2006, Cincinnati, Ohio.

479. Deborah H. Metz*, Dionysios D. Dionysiou, and Michael R. Schock, The Effect of Fluoride Additives on Lead Solubility and Corrosion. Poster Presentation at the *2006 Ralph and Helen Oesper Symposium*, University of Cincinnati, October 27-28, 2006, Cincinnati, Ohio.

480. Maria Antoniou*, Usha Nambiar* and Dionysios D. Dionysiou, Photocatalytic Degradation of Secondary Metabolites in Urine: Reaction Pathway of Creatinine. Poster Presentation at the *2006 Ralph and Helen Oesper Symposium*, University of Cincinnati, October 27-28, 2006, Cincinnati, Ohio.

481. Maria G. Antoniou*, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou, Application of Thin Nano-TiO_2 Photocatalytic Films for the Degradation of the Cyanobacterial Toxin Microcystin-LR: Reaction Intermediates. Oral Presentation in *the Advanced Graduate Seminar in Environmental Science and Engineering* (Winter 2007), February 23, 2007, University of Cincinnati, Cincinnati, Ohio.

482. Maria G. Antoniou*, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou, Degradation of the Cyanobacterial Toxins Microcystin- LR and Cylindrospermopsin with TiO_2 Photocatalysts: Reaction Intermediates. Poster Presentation at the 2007 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 2, 2007, Cincinnati, Ohio.

483. Shirish Agarwal*, Souhail R. Al-Abed, and Dionysios D. Dionysiou, Pd/Mg Bimetallic Corrosion Systems for Dechlorination of PCB contaminated Matrices. Poster Presentation at *the 2007 Graduate Student Research/Scholarship Forum of the University of Cincinnati*, March 2, 2007, Cincinnati, Ohio.

484. Aditya Rastogi*, Souhail Al-Abed, and Dionysios D. Dionysiou, Destruction of PCBs Using Sulfate Radical-Based Advanced Oxidation Processes. Poster Presentation at the 2007 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 2, 2007, Cincinnati, Ohio.

485. Maria G. Antoniou*, Usha Nambiar and Dionysios D. Dionysiou, Immobilized TiO_2 Photocatalysts for the Treatment of Model Organic Contaminants found in NASA's Wastestreams: Parametric Study and Intermediates. Oral Presentation at *The 37th Mid-Atlantic Industrial & Hazardous Waste Conference*, University of Cincinnati, March 21-23, 2007, Cincinnati, Ohio.

486. Aditya Rastogi*, Souhail R. Al-Abed, Dionysios D. Dionysiou, Destruction of PCBs Using Sulfate Radical-based Advanced Oxidation Processes. Oral Presentation at the *Symposium on Sustainability in Water Supply: Advances in Oxidation Processes for Water Treatment, Division of Sustainability of Energy, Food and Water*, paper 151, 233rd American Chemical Society National Meeting (ACS), March 25-29, 2007, Chicago, Illinois.

487. Hyeok Choi*, Maria G. Antoniou, and Dionysios D. Dionysiou, Visible Light-Activated Mesoporous Titanium Dioxide Photocatalysts Synthesized via Sol-Gel Method Employing Nitrogen-Containing Surfactant Templates. Oral Presentation at the *Symposium on Nanotechnology and the Environment: Focus on Green Nanotechnology,*

Division of Industrial and Engineering Chemistry, 233rd American Chemical Society National Meeting (ACS), March 25-29, 2007, Chicago, Illinois.

488. Yongjun Chen* and Dionysios D. Dionysiou, Synthesis of Mesoporous TiO_2-P25 Composite Films Using Polysorbate 20 (Tween 20) as Template and Evaluation for the Destruction of Creatinine in Water. Poster Presentation at t*he Division of Industrial & Engineering Chemistry at the 233rd ACS National Meeting*, March 25-29, 2007, Chicago, Illinois.

489. Amber Yearly*, Jelynn Stinson, Hyeok Choi, Suzanne K. Lunsford, and Dionysios D. Dionysiou, Voltammetric Determination of Catechol at a Sonogel-Carbon Electrodes in the Presence of Common Interferents. Poster Presentation at the *Session of General Papers, Division of Environmental Chemistry, 233rd American Chemical Society (ACS) National Meeting*, March 25-29, 2007, Chicago, Illinois.

490. Jelynn Stinson*, Suzanne Lunsford, Justyna Widera, Hyeok Choi, and Dionysios D. Dionysiou, Electrocatalytic Oxidation of Beta-Nicotinamide Adenine Dinucleotide at a Poly(2,2-bithiophene)-Coated Glassy Carbon Electrode. Poster Presentation at the *Session of General Papers, Division of Environmental Chemistry, 233rd American Chemical Society (ACS) National Meeting,* March 25-29, 2007, Chicago, Illinois.

491. Hyeok Choi* and Dionysios D. Dionysiou, Surfactant Templated-Based Sol-Gel Synthesis of Mesoporous Nanocrystalline TiO_2 Photocatalytic Materials Immobilized on Supports for Environmental Applications. Invited Oral Presentation at the *Symposium on Nanoscience Fostered Advances in Sustainability, Division of Colloid and Surface Chemistry, 233rd American Chemical Society National Meeting (ACS)*, March 25-29, 2007, Chicago, Illinois.

492. Shirish Agarwal*, Souhail R. Al-Abed, Dionysios D. Dionysiou, Nano-scale Palladium Doped Magnesium Bimetallics for Dechlorinating PCBs. Oral Presentation at the *Symposium on Nanotechnology for Site Remediation, Division of Industrial & Engineering Chemistry, 233rd American Chemical Society National Meeting (ACS)*, March 25-29, 2007, Chicago, Illinois.

493. Hyeok Choi*, Maria G. Antoniou, Miguel Pelaez, Armah A. de la Cruz, and Dionysios D. Dionysiou, Visible Light Activated Nitrogen-doped TiO_2 Nanostructured Photocatalysts: Synthesis and Environmental Applications. Poster Presentation at the *2007 Ohio Nanotechnology Summit*, April 24-25, 2007, Akron, Ohio.

494. Maria G. Antoniou*, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou, Detoxification of Cyanobacterial Toxin-contaminated Water Using TiO_2 Photocatalytic Films. Poster Presentation at the *2007 Ohio Nanotechnology Summit*, April 24-25, 2007, Akron, Ohio.

495. Dionysios D. Dionysiou*, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, and Jody A. Shoemaker, Environmental Engineering Aspects for Chemical Engineers: Case

Study for the Destruction of Cyanotoxins using Advanced Oxidation Nanotechnologies. *Invited Lecture, AIChE Student Chapter*, University of Cincinnati, April 25, Cincinnati, Ohio.

496. Maria G. Antoniou*, Usha Nambiar, Stephen Macha, and Dionysios D. Dionysiou, Utilization of ESI-MS for the Identification of the Reaction Intermediates of Creatinine, a Model Organic Contaminants found in NASA's Wastewater Streams. Oral Presentation in the *Mass Spectrometry Session of the Central Regional Meeting of the American Chemical Society (CERMACS)*, Northern Kentucky Convention Center, May 20-23, 2007, Covington, Kentucky.

497. Dionysios D. Dionysiou*, Maria G. Antoniou, Hyeok Choi, Armah. A. de la Cruz, and Jody A. Shoemaker, Advanced Oxidation Technologies and Nanotechnologies for Water Treatment: Fundamentals, Development and Application in the Destruction of Microcystin LR. Invited Presentation at the U.S. EPA Workshop on *Innovative Approaches for Detecting Microorganisms in Water*, June 18-20, 2007, Cincinnati, Ohio.

498. Maria G. Antoniou*, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou, Degradation of the Cyanobacterial Toxin Microcystin-LR with Thin Nano-TiO_2 Photocatalytic Films: Reaction Intermediates. Invited *Poster Presentation at the 2007 Annual Conference and Exposition (ACE)*, June 24-28, 2007, Toronto, Canada.

499. Maria G. Antoniou, Hyeok Choi, Miguel Pelaez, Armah. A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou*, Visible Light Activated Nitrogen-Doped TiO_2 Nanostructured Photocatalysts: Destruction of Microcystin-LR, an Emerging Drinking Water Contaminant. Poster Presentation at the *Second International Conference on Semiconductor Photochemistry (SP-2)*, July 23-25, 2007, The Robert Gordon University, Aberdeen, Scotland.

500. Maria G. Antoniou* and Dionysios D. Dionysiou, Investigation of the Photocatalytic Degradation Pathway of Creatinine: Effect of pH. Invited Oral Presentation in the *C. Ellen Gonter Environmental Chemistry Awards Session, Division of Environmental Chemistry, 234th American Chemical Society (ACS) National Meeting*, August 19-23, 2007, Boston, Massachusetts.

501. Suzanne K. Lunsford, Amber Yeary*, Jelynn Stinson, Hyeok Choi, and Dionysios D. Dionysiou, Electrochemical Analysis of Sonogel-Carbon Electrode Modified with Titanium Oxide (TiO_2) to Detect Catecholamines in the Presence of Common Interferents. Poster Presentation in the *General Papers Session, Division of Environmental Chemistry, 234th American Chemical Society (ACS) National Meeting*, August 19-23, 2007, Boston, Massachusetts.

502. Aditya Rastogi*, Souhail Al-Abed, and Dionysios D. Dionysiou, Development of Sulfate Radical-Based Chemical Oxidation Processes for Treatment of PCBs. Oral Presentation

at *The 13th International Conference on Advanced Oxidation Technologies for the Treatment of Water*, Air, and Soils, Sept. 24-27, 2007, Niagara Falls, New York.

503. Maria G. Antoniou, Usha Nambiar and Dionysios D. Dionysiou*, Mechanistic Studies on the Identification of the Intermediates of Creatinine with TiO_2 Photocatalysts: Effect of pH. Poster Presentation at *The 12th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, Sept. 24-27, 2007, Niagara Falls, New York.

504. Hyeok Choi, Maria G. Antoniou, Miguel Pelaez, Armah A. de la Cruz, and Dionysios D. Dionysiou*, Synthesis of N-TiO_2 using Surfactant and Evaluation for the Destruction of Microcystin-LR. Poster Presentation at *The 12th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, Sept. 24-27, 2007, Niagara Falls, New York.

505. Aditya Rastogi*, Souhail R. Al-Abed, Dionysios D. Dionysiou, Development of Sulfate Radical-Based Chemical Oxidation Processes for Groundwater Remediation. Podium Presentation in the Session: Microconstitutents and Regulatory Issues in Groundwater, *80th Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC)*, October 13-27, 2007, San Diego, California.

506. Shirish Agarwal*, Souhail Al-Abed, and Dionysios D. Dionysiou, Palladium/Magnesium Bimetallic Corrosion Nano-cells for Dechlorination of PCBs. Poster Presentation at *The 2007 Ralph and Helen Oesper Symposium*, October 19-20, 2007, University of Cincinnati, Cincinnati, Ohio.

507. Maria G. Antoniou*, Usha Nambiar and Dionysios D. Dionysiou, Mechanistic Studies on the Identification of the Intermediates of Creatinine with TiO_2 Photocatalysts: Effect of pH. Poster Presentation, at *The 2007 Ralph and Helen Oesper Symposium*, October 19-20, 2007, University of Cincinnati, Cincinnati, Ohio.

508. Miguel Pelaez*, Emily Riley, Maria G. Antoniou, Hyeok Choi, Dionysios. D. Dionysiou. Synthesis of Tailor-Designed Porous Nanomaterials for the Degradation of Microcystin-LR under Visible Light in Drinking Water. Poster Presentation at *The 2007 Ralph and Helen Oesper Symposium*, October 19-20, 2007, University of Cincinnati, Cincinnati, Ohio.

509. Dionysios Dionysiou* and Maria Antoniou, Destruction of Cyanobacterial Toxins Using Heterogeneous AOTs: Mechanistic Aspects and Degradation Pathways. Oral Presentation at the *Workshop on Advanced Oxidation Technologies in Water Treatment: Fundamentals and Applications, The 2007 Water Quality Technology Conference (WQTC)*, November 4-8, 2007, Charlotte, North Carolina.

510. Maria G. Antoniou, Hyeok Choi, Miguel Pelaez, Armah A. de la Cruz, Jody Shoemaker, and Dionysios D. Dionysiou*, Destruction and Reaction Intermediates of Cyanobacterial Toxins by UV and Visible Light-TiO_2 Photocatalysis. Poster Presentation at the

Nanoscale Science and Engineering Grantees Conference, National Science Foundation, December 3-6, 2007, Arlington, Virginia.

511. A. A. S. Bhagat, S. S. Kuntaegowdanahalli, D. D. Dionysiou, and I. Papautsky*, Spiral Microfluidic Nanoparticle Separators. Oral Presentation at the SPIE Microfluidics, BioMEMS, and Medical Microsystems Conference, January 19-24, 2008, San Jose, California.

512. Elias Stathatos*, Panagiotis Lianos, and Dionysios D. Dionysiou, Highly Efficient Quasi-Solid State Dye Sensitized Solar Cells Employing Nanocrystalline TiO_2 Films Prepared in Room or in High Temperature. Oral Presentation at the *International Conference and Training Workshop on Molecular/Nano-Photochemistry, Photocatalysis and Solar Energy Conversion Solar '08*, February 24-28, 2008, Cairo, Egypt.

513. Elias Stathatos*, Katerina Pelentridou, Panagiotis Lianos, Maria Antoniou, Qiujing Yang, Th. Dalkarani and Dionysios D. Dionysiou, Photocatalytic Oxidation of Water Soluble Herbicides in the Presence of Nanocrystalline TiO_2 Films. The Effect of Noble Metal Doping on Photodegradation Rates. Poster Presentation at the *International Conference and Training Workshop on Molecular/Nano-Photochemistry, Photocatalysis and Solar Energy Conversion Solar '08*, February 24-28, 2008, Cairo, Egypt.

514. Maria G. Antoniou*, Jody A. Shoemaker, A. de la Cruz, and Dionysios D. Dionysiou, Treating the New Generation of Drinking Water Contaminants, The Cyanotoxins, with TiO_2 Photocatalysis: Degradation Pathways, Poster Presentation at the 2008 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 7, 2008, Cincinnati, Ohio.

515. Miguel Pelaez*, Maria G. Antoniou, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou, Effects of Water Parameters on the Degradation of Microcystin-LR Under Solar Light-activated TiO_2 Photocatalysts. Oral Presentation in the *Session: Advances in Abiotic Transformation Processes for Micropollutants in Drinking Water and for Sourcewater Protection, Division of Environmental Chemistry, 235th American Chemical Society (ACS) National Meeting*, April 6-10, 2008, New Orleans, Louisiana.

516. Hyeok Choi, Shirish Agarwal*, Dionysios D. Dionysiou, and Souhail R. Al-Abed, Reactive Fe/Pd Bimetallic Systems-impregnated Adsorptive Activated Carbon for the Environmental Risk Management of Contaminated Sites. Poster Presentation in the *Session: General Papers, Division of Environmental Chemistry, 235th American Chemical Society (ACS) National Meeting*, April 6-10, 2008, New Orleans, Louisiana.

517. Maria G. Antoniou, Jody A. Shoemaker, A. de la Cruz, and Dionysios D. Dionysiou*, LC/MS/MS Structure Elucidation of Reaction Intermediates Formed during the TiO_2 Photocatalysis of Microcystin-LR. Poster Presentation, in the *Session: General Papers, Division of Environmental Chemistry, 235th American Chemical Society National Meeting (ACS)*, April 6-10, 2008, New Orleans, Louisiana.

518. Shirish Agarwal*, Souhail R. Al-Abed, and Dionysios D. Dionysiou, Nano-scale Palladium Doping on Magnesium Particles for PCB Dechlorination: Evaluation of Critical Parameters in Bimetallic Synthesis. Poster Presentation at the *Session of General Papers, Division of Environmental Chemistry, 235th American Chemical Society (ACS) National Meeting*, April 6-10, 2008, New Orleans, Louisiana.

519. A. A. S. Bhagat, S. S. Kuntaegowdanahalli, D. D. Dionysiou, and I. Papautsky*, Microfluidic Lab-on-a-Chip for Sizing and Separating Nanoparticles. Invited Oral Presentation, Ohio Nanotechnology Summit, April 11, 2008, Columbus, Ohio.

520. N. Quici, M. L. Vera, H. Choi, D. D. Dionysiou, M. I. Litter and H. Destaillats*, Descomposición fotocatalítica de tolueno en aire. Efecto de parámetros críticos en el diseño de purificadores de aire. *V Congreso, Iberoamericano de Química y Física Ambiental*, April 14-18, 2008, Mar del Plata, Argentina.

521. Maria G. Antoniou*, Hyeok Choi, Jody A. Shoemaker, Armah A. de la Cruz, and Dionysios D. Dionysiou, Intermediates of Cyanobacterial Toxins with Hydroxyl-Radical Based Advanced Oxidation Technologies (HR-AOTs). Oral Presentation at *The 2008 American Water Works Association (AWWA) Annual Conference and Exposition (ACE)*, June 8-12, 2008, Atlanta, Georgia.

522. Souhail R. Al-Abed*, Hyeok Choi, Shirish Agarwal, and Dionysios D. Dionysiou, Applications of Nanomaterials in Risk Management of Environmental Pollutants: The Use of Bimetallic Systems. Oral Presentation at the *1st International Conference* from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems *(IC4N)*, June 16-18, Halkidiki, Greece.

523. Maria G. Antoniou, Jody A. Shoemaker, A. de la Cruz, and Dionysios D. Dionysiou*, Treating the New Generation of Drinking Water Contaminants, The Cyanotoxins, with TiO_2 Photocatalysis: Degradation Pathways. Poster Presentation at the *1st International Conference* from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems *(IC4N)*, June 16-18, Halkidiki, Greece.

524. Qiujing Yang, Aditya Rastogi, Hyeok Choi, Souhail Al-Abed, and Dionysios D. Dionysiou*, Homogeneous and Heterogeneous Activation of Peroxymonosulfate with Iron-based Catalysts. Poster Presentation *in the Session*: *Environment Applications, Implications and Ethics, 1st International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems,* June 16-18, 2008, Halkidiki, Greece.

525. Matthew Bosch*, Miguel Pelaez, and Dionysios D. Dionysiou, Synthesis and Application of Photocatalytic NF-TiO_2 Film Membranes for the Degradation of Amitrole under Visible and Ultraviolet Light Irradiation. Poster Presentation at the *2008 NSF REU Summer Site Program in Membrane Sciences*, August 21, 2008, University of Cincinnati, Cincinnati, Ohio.

526. Miguel Pelaez*, Armah A. de la Cruz and Dionysios D. Dionysiou, Visible Light-activated TiO_2 Photocatalytic Films: Synthesis, Characterization and Environmental Application for the Destruction of Microcystin-LR. Oral Presentation in the *Session: Emerging Technologies for a Cleaner and Sustainable Environment, Division of Environmental Chemistry, 236th American Chemical Society (ACS) National Meeting,* August 17-21, 2008, Philadelphia, Pennsylvania.

527. Maria G. Antoniou*, Jody A. Shoemaker, A. de la Cruz, and Dionysios D. Dionysiou, Utilization of Mass Spectrometry for the Identification of Reaction Intermediates Formed during the Degradation of the Cyanotoxins Microcystin-LR and Cylindrospermopsin. Poster Presentation, in the Session: General Papers, Division of Environmental Chemistry, 236th American Chemical Society National Meeting (ACS), August 17-21, 2008, Philadelphia, Pennsylvania.

528. Shirish Agarwal*, Souhail R. Al-Abed, and Dionysios D. Dionysiou, PCB Dechlorination with Pd/Mg Bimetallic Systems: Effect of Position of Chlorine on Reaction Kinetics and Dechlorination Pathways for Select Congeners. Invited Award Oral Presentation at the *C. Ellen Gonter Environmental Chemistry Student Awards Session, Division of Environmental Chemistry, 236th American Chemical Society (ACS) National Meeting,* August 17-21, 2008, Philadelphia, Pennsylvania.

529. A. A. S. Bhagat, S. S. Kuntaegowdanahalli, D. D. Dionysiou, and I. Papautsky*, Lab-on-a-Chip for Passive Particle Separations in Environmental Applications. Oral Presentation in the *Session: Emerging Technologies for a Cleaner and Sustainable Environment, Division of Environmental Chemistry, 236th American Chemical Society (ACS) National Meeting,* August 17-21, 2008, Philadelphia, Pennsylvania.

530. N. Quici, D. Kibanova, M. L. Vera, H. Choi, D. D. Dionysiou, M. I. Litter, J. Cervini-Silva, A. T. Hodgson and H. Destaillats*, Investigation of Key Parameters Influencing the Efficient Photocatalytic Oxidation of Indoor Volatile Organic Compounds (VOCs). Presentation at the 11th International Conference on Indoor Air Quality and Climate (Indoor Air 2008), August 17-22, 2008, Copenhagen, Denmark.

531. Shirish Agarwal*, Souhail R. Al-Abed, and Dionysios D. Dionysiou, Eric Graybill, Pd/Mg Bimetallic Systems for PCB Dechlorination: Structure Activity Relationships and Dechlorination Pathways. Invited Oral Presentation at *the 2008 Student Paper Competition of the Ohio Section American Water Works Association (OAWWA) 70th Annual Conference*, September 16-19, 2008, Toledo, Ohio.

532. Maria G. Antoniou*, Persoulla A. Nicolaou, Armah. A. de la Cruz, and Dionysios D. Dionysiou, Detoxification of Water Contaminated with the Cyanotoxin Microcystin-LR by Utilizing Thin TiO_2 Photocatalytic Films. Poster Presentation at the 2008 *Ohio Section American Water Works Association (OAWWA) 70th Annual Conference*, September 16-19, 2008, Toledo, Ohio.

533. Miguel Pelaez*, Armah A. de la Cruz and Dionysios D. Dionysiou, Visible Light-driven Photocatalysis of Microcystin-LR Using NF-TiO_2 Nanoparticles. Poster Presentation at

the *Ohio Section American Water Works Association (OAWWA) 70th Annual Conference*, September 16-19, 2008, Toledo, Ohio.

534. Maria G. Antoniou, Jody A. Shoemaker, Armah A. de la Cruz, and Dionysios D. Dionysiou*, Utilization of Mass Spectrometry for the Identification of Reaction Intermediates Formed During the Photocatalytic Degradation of the Cyanotoxins Microcystin-LR and Cylindrospermopsin. Poster Presentation at the International conference on *25 Years of TiO_2 Photocatalysis-Retrospective and Prospective Views and the 13th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications (TiO_2-13)*, September 22-25, 2008, San Diego, California.

535. Miguel Pelaez, Armah. A. de la Cruz and Dionysios D. Dionysiou*, Development of Visible Light-sensitized TiO_2 for the Photocatalytic Degradation of Microcystin-LR. Poster Presentation at the International conference on *25 Years of TiO_2 Photocatalysis-Retrospective and Prospective Views and the 13th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications (TiO_2-13)*, September 22-25, 2008, San Diego, California.

536. Hugo Destaillats*, Natalia Quici, Daria Kibanova, María L. Vera, Hyeok Choi, Javiera Cervini-Silva, Dionysios D. Dionysiou and Marta I. Litter, Elimination of Indoor Air Pollutants with Photocatalytic Oxidation: Key Parameters and Challenges. Oral Presentation at the International Conference on *25 Years of TiO_2 Photocatalysis-Retrospective and Prospective Views and the 13th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications (TiO_2-13)*, September 22-25, 2008, San Diego, California.

537. George P. Anipsitakis, Xuexiang He, Miguel Pelaez, Thomas P. Tufano, and Dionysios D. Dionysiou*, Chemical and Microbial Decontamination of Pool Water Using Activated Potassium Peroxymonosulfate. Oral Presentation at *the 14th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil (AOTs-14)*, September 22-25, 2008, San Diego, California.

538. Qiujing Yang, Aditya Rastogi, Hyeok Choi, Souhail Al-Abed, and Dionysios D. Dionysiou*, Generation of Sulfate Radicals by Homogeneous and Heterogeneous Activation of Peroxymonosulfate with Iron-Based Catalysts. Oral Presentation at *the 14th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil (AOTs-14)*, September 22-25, 2008, San Diego, California.

539. Maria G. Antoniou, Miguel Pelaez, Jody A. Shoemaker, Persoulla A. Nicolaou, Armah A. de la Cruz, and Dionysios D. Dionysiou*, TiO_2 Films for UV and Visible Light-activated Photocatalysis: Environmental Application in the Destruction of Microcystin-LR. Oral Presentation (OP 1.8) at *the 5th European Meeting on Solar Chemistry and Photocatalysis: Environmental Application, (SPEA 5)*, October 4-8, 2008, Sicily, Italy.

540. Maria G. Antoniou, A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou*, LC/MS/MS Structure Elucidation of Reaction Intermediates Formed during the TiO_2

Photocatalysis of Microcystin-LR. Poster Presentation (PP2.3) at *the 5th European Meeting on Solar Chemistry and Photocatalysis: Environmental Application, (SPEA 5)*, October 4-8, 2008, Sicily, Italy.

541. C. Raillard, B. Gao, V. Héquet*, B. Illien, and D. D. Dionysiou, QSAR Between Molecular Descriptors from Various VOCs and Photocatalytic Kinetic and Equilibrium Parameters. Oral Presentation (OP5.5) at *the 5th European Meeting on Solar Chemistry and Photocatalysis: Environmental Application, (SPEA 5)*, October 4-8, 2008, Sicily, Italy.

542. M. I. Litter*, N. Quici, M. L. Vera, H. Choi, D. D. Dionysiou, H. Destaillats, Parameter Optimization for the Photocatalytic Oxidation of Toluene in the Gas Phase. Poster Presentation (PP5.7) at *the 5th European Meeting on Solar Chemistry and Photocatalysis: Environmental Application, (SPEA 5)*, October 4-8, 2008, Sicily, Italy.

543. Maria G. Antoniou*, Miguel Pelaez, Jody A. Shoemaker, Persoulla A. Nicolaou, Armah A. de la Cruz and Dionysios D. Dionysiou*, TiO_2 photocatalysis: i) Mechanistic Steps of the Photocatalytic Oxidation of Microcystin-LR; ii) Application of Solar Light Activated Photocatalysts. Oral Presentation at the EPA Symposium on Emerging Aspects on Harmful Algal Blooms and their Effects on Drinking Water Quality, November 18, 2008, Cincinnati, Ohio.

544. Miguel Pelaez*, Armah A. de la Cruz, and Dionysios D. Dionysiou, Visible Light-Sensitized TiO_2 for the Photocatalytic Degradation of Microcystin-LR. Poster Presentation at the *International Conference on Water Scarcity, Global Changes, and Groundwater Management Responses*, December 1-5, 2008, Irvine, California.

545. Maria G. Antoniou*, Persoulla A. Nicolaou, Armah. A. de la Cruz, and Dionysios D. Dionysiou, Detoxification of Water Contaminated with the Cyanotoxin, Microcystin-LR, by Utilizing Thin TiO_2 Photocatalytic Films. Oral Presentation in the *XENOWAC 2009 Conference*, March 13-15, 2009, Paphos, Cyprus.

546. Maria G. Antoniou, Jody A. Shoemaker, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Investigating the Photocatalytic Transformations of the Cyanotoxins Microcystin-LR and Cylindrospermopsin with TiO_2 Films: Reaction Intermediates. Oral Presentation in the *XENOWAC 2009 Conference*, March 13-15 2009, Paphos, Cyprus.

547. Miguel Pelaez, Armah A. de la Cruz, and Dionysios D. Dionysiou,* Development of Visible Light-activated TiO2 and its Photocatalytic Application for the Destruction of Microcystin-LR. Poster Presentation in the *XENOWAC 2009 Conference*, March 13-15 2009, Paphos, Cyprus.

548. Maria G. Antoniou, Miguel Pelaez, Jody A. Shoemaker, Persoulla A. Nicolaou, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Treating Water Contaminated with Cyanotoxins. Oral Presentation at the *237th American Chemical Society (ACS) National Meeting, Division of Agricultural and Food Chemistry, Session on Food-related Nanotechnology Health and Safety*, paper 118, March 22-26, 2009, Salt Lake City, Utah.

549. Maria G. Antoniou, Persoulla A. Nicolaou, Jody A. Shoemaker, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Detoxification of Water Contaminated with the Cyanotoxin Microcystin-LR by Utilizing Thin TiO_2 Photocatalytic Films. Oral Presentation at the *237th American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry, Session on Frontiers in Water Reuse: Detection, Advanced Treatment and Environmental Fate of Contaminants of Environmental Concerns*, paper 69, March 22-26, 2009, Salt Lake City, Utah.

550. Miguel Pelaez, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Role of Natural Water Matrix in the Photocatalytic Degradation of Microcystin LR with NF-TiO_2 Films. Oral Presentation at *the 237th American Chemical Society (ACS) National Meeting, Division of Industrial & Engineering Chemistry, Session on Nanotechnology and the Environment: Emphasis on Green Nanotechnology*, paper 117, March 22-26, 2009, Salt Lake City, Utah.

551. Miguel Pelaez, Dionysios D. Dionysiou*, Erick R. Bandala, Liliana González, Patrick S.M. Dunlop, Anthony J. Byrne, Solar Photocatalytic Disinfection of Water in Developing Countries. Poster Presentation at the *237th American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry, Session on Evaluation of the Sustainability of Drinking Water Technologies: Application in the Developing World*, paper 216, March 22-26, 2009, Salt Lake City, Utah.

552. Shirish Agarwal, Souhail R. Al-Abed*, and Dionysios D. Dionysiou, Improved Understanding of Pd/Mg Systems through a Study of Critical System Parameters. Poster Presentation at the *237th American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry, Session on General Papers*, paper 158, March 22-26, 2009, Salt Lake City, Utah.

553. Miguel Pelaez*, Armah A. de la Cruz, and Dionysios D. Dionysiou, Nanostructured TiO_2 Nanoparticles and Films Activated under Visible Light for Water Purification. Poster Presentation at the *International Conference on Water, Environment and Health Sciences: The Challenges of the Climate Change, (ICWEHS)*, April 13-17, 2009, Cholula, Puebla, Mexico.

554. Miguel Pelaez*, Jordana Castillo, Erick R. Bandala, Patrick S.M Dunlop and Dionysios D. Dionysiou*, Enhanced Photocatalytic Solar Disinfection (ENPHOSODIS) of Water in Developing Countries. Poster Presentation at the 5th Annual National Sustainable Design Expo and EPA P3 Award Competition, April 18-20, 2009, Washington, DC.

555. Miguel Pelaez*, Armah A. de la Cruz and Dionysios D. Dionysiou, Nitrogen and Fluorine co-doped TiO_2 Mesoporous Nanomaterials Activated under Visible Light Irradiation for Water Purification. Poster Presentation at *The International Conference on Particle Separations and Nanoparticles in Water*, June 3-5, 2009, Durham, North Carolina.

556. Miguel Pelaez*, Jordana Castillo, Erick R. Bandala, Patrick S.M Dunlop and Dionysios D. Dionysiou, Enhancement of Solar Disinfection Performance with Modified TiO_2 Photocatalyst for Water Purification. Poster Presentation at *The International Conference on Particle Separations and Nanoparticles in Water*, June 3-5, 2009, Durham, North Carolina.

557. Miguel Pelaez, Maria G. Antoniou, Jody A. Shoemaker, Armah de la Cruz, and Dionysios D. Dionysiou*, Development and Environmental Application of TiO_2 Photo-assisted Processes for Water Purification: Degradation of Cyanobacterial Toxins. Invited Oral Presentation at the *12th EuChemMS International Conference on Chemistry and the Environment (ICCE)*, June 14-17, 2009, Stockholm, Sweden.

558. Miguel Pelaez, Maria G. Antoniou, Jody A. Shoemaker, Persoulla A. Nicolaou, Armah A. de la Cruz and Dionysios D. Dionysiou*, UV and Visible Photoactivated TiO_2 Films for the Degradation of Microcystin-LR in Water. Invited Oral Presentation at *The 2nd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N)*, June 28-July 3, 2009, Rhodes, Greece.

559. Miguel Pelaez* Armah A. de la Cruz and Dionysios D. Dionysiou, Nanostructured Non-metal Doped TiO_2 for the Degradation of Microcystin-LR under Visible Light. Poster Presentation at *The 2nd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N-2)*, June 28-July 3, 2009, Rhodes, Greece.

560. Maria G. Antoniou, Jody A. Shoemaker, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Destruction of Cyanotoxins by Hydroxyl Radicals and Sulfate Radicals: Reaction Intermediates and Pathways. Invited Oral Presentation in the Symposium *Environmental Science and Technology: A Tribute to William "Bill" Glaze, Division of Environmental Chemistry, 238th American Chemical Society National Meeting (ACS)*, August 16-20, 2009, Washington, D.C.

561. S. P. Mezyk*, E. Abud, K. L. Swancutt, and D. D. Dionysiou, Removing Steroids from Contaminated Waters Using Radical Reactions. Oral Presentation in the Symposium *Emerging Contaminants, Pharmaceuticals, and Personal Care Products and Organohalogens in Wastewater and Municipal Biosolids, Division of Environmental Chemistry, 238th American Chemical Society National Meeting (ACS)*, August 16-20, 2009, Washington, D.C.

562. S. R. Al-Abed*, G. Jegadeesan, H. Choi, and D. D. Dionysiou, Arsenic Removal Using Titanium Dioxide Nanoparticles: Macroscopic and Spectroscopic Evaluation. Oral Presentation in the Symposium *Emerging Environmental Technologies towards a Cleaner and Sustainable Society, Division of Environmental Chemistry, 238th American Chemical Society National Meeting (ACS)*, August 16-20, 2009, Washington, D.C.

563. Maria G. Antoniou*, Persoulla A. Nicolaou, Armah. A. de la Cruz, and Dionysios D. Dionysiou, Investigation of the Reaction Intermediates and Pathways of Microcystin-LR Following Treatment with Sulfate Radical-based Advanced Oxidation Technologies.

Invited Oral Presentation at *The 2nd European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP2)*, September 7-9, 2009, Nicosia, Cyprus.

564. Deborah H. Metz, Maria Meyer, Dionysios D. Dionysiou, and E. F. Beerendonk, Efficacy of UV/H_2O_2 for a Large U.S. Drinking Water Utility with Disinfection By-products Concerns. Invited Oral Presentation at *The 2nd European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP2)*, September 7-9, 2009, Nicosia, Cyprus.

565. N. Quici, M. L. Vera, H. Choi, G. Li Puma, D. D. Dionysiou, M. Litter, and H. Destaillats Effect of Key Parameters on the Photocatalytic Oxidation of Toluene at Low Concentrations in Air Under 254+185 nm-UV Radiation. Invited Oral Presentation at *The 2nd European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP2)*, September 7-9, 2009, Nicosia, Cyprus.

566. Maria G. Antoniou, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Application of Sulfate Radical-based Advanced Oxidation Technologies (SR-AOTs) for the Degradation of Microcystin-LR. Invited Oral Presentation at *The 1st International Workshop on Application of Redox Technologies in the Environment (ARTE)*, September14-15, Istanbul, Turkey.

567. Dionysios D. Dionysiou*, George P. Anipsitakis, Aditya Rastogi, Qiujing Yang, Maria G. Antoniou, Souhail Al-Abed, Jody A. Shoemaker, and Armah A. de la Cruz, Sulfate Radical-Based Advanced Oxidation Processes. Invited Oral Presentation at *The 15th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil,* October 5-8, 2009, The Conference Center, Niagara Falls, New York.

568. Maria G. Antoniou, Jody A. Shoemaker, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Comparison of Reaction Intermediates and Degradation Pathways of Microcystin-LR Following Treatment with Hydroxyl and Sulfate Radicals. Invited Oral Presentation at *The 14th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, October 5-8, 2009, The Conference Center, Niagara Falls, New York.

569. C. Raillard*, B. Gao, V. Héquet, B. Illien, and D. D. Dionysiou, A QSAR Approach for the Understanding of Photocatalytic Oxidation Mechanism of Two Sets of VOCs: Alkanes and C4-Molecules. Invited Oral Presentation at *The 14th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, October 5-8, 2009, The Conference Center, Niagara Falls, New York.

570. Weihua Song*, William J. Cooper, Dionysios D. Dionysiou, and Kevin E. O'Shea, Advanced Oxidation Degradation of Cyanotoxins: Radical Chemistry of Potential Water Purification Technologies. Invited Oral Presentation at *The 15th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil,* October 5-8, 2009, The Conference Center, Niagara Falls, New York.

571. Yongjun Chen, Yongchen Song, Elias Stathatos, and Dionysios D. Dionysiou*, An Overview on the Template-assisted Degussa P25 TiO_2 Powder-Modified Sol-Gel Methods for the Synthesis of Porous Photocatalytic Films with Good Structural Integrity.

Poster Presentation at *The 14th International Conference on TiO_2 Photocatalysis: Fundamental and Applications*, October 5-8, 2009, The Conference Center, Niagara Falls, New York.

572. Elias Stathatos*, Hyeok Choi, and Dionysios D. Dionysiou, Porous Nanocrystalline TiO_2 Fibers for the Destruction of Organic Contaminants in Water (in Greek). Oral Presentation at *The 4th Pan-Hellenic Conference on Porous Materials*, October 22-23, 2009, University of Patras Conference Center, Patras, Greece.

573. Miguel Pelaez, Polycarpos Falaras, Vlassis Likodimos, Athanassios G. Kontos, Kimberley Curell, Elias Stathatos and Dionysios D. Dionysiou*, Structural, Morphological and Optical Properties of Nanostructured NF-TiO_2 Films for the Photocatalytic Degradation of Emerging Micropollutants in Water under Visible and Solar Light. Oral Presentation at *The 239th American Chemical Society (ACS) National Meeting*, Division of Environmental Chemistry, March 21-25, 2010, San Francisco, California.

574. Miguel Pelaez*, Erick R. Bandala, Jordana Castillo, Patrick S.M. Dunlop, Anthony Byrne, and Dionysios D. Dionysiou, Enhanced Photocatalytic Solar Disinfection (ENPHOSODIS) of *Escherichia coli* using Nitrogen and Fluorine co-doped Titanium Dioxide. Oral Presentation at the 239th American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry, March 21-25, 2010, San Francisco, California.

575. Changseok Han, Amos Doepke, Wondong Cho, Armah A. de la Cruz, William R. Heineman, H. Brian Halsall, Vesselin N. Shanov, Mark J. Schulz, Polycarpos Falaras, and Dionysios D. Dionysiou*, Preliminary Study for the Development of Carbon Nanotube-based Biosensor for Monitoring MC-LR. Poster Presentation at *The 239th American Chemical Society (ACS) National Meeting*, Division of Environmental Chemistry, Session on General Posters, March 21-25, 2010, San Francisco, California.

576. Xuexiang He, Miguel Pelaez*, and Dionysios D. Dionysiou, Degradation of Microcystin-LR by UV/H_2O_2 Advanced Oxidation Process. Poster Presentation at *The 239th American Chemical Society (ACS) National Meeting*, Division of Environmental Chemistry, Session on General Posters, March 21-25, 2010, San Francisco, California.

577. H. Choi*, D. D. Dionysiou, Nanostructured Titanium Oxide Photocatalytic Particles, Films, and Membranes for Environmental Applications. Oral Presentation at *The 239th American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry, Symposium on Nanoporous Materials for Environmental Applications*, March 21-25, 2010, San Francisco, California.

578. K. A. Rickman*, S. P. Mezyk, J. R. Peller, and D. D. Dionysiou, Sulfate Radical Remediation of Contaminant Antibiotics in Water. Oral Presentation at *The 239th American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry, Session on Wastewater Treatment Processes and Advanced Oxidation Technologies of the Symposium Sustainable Water Production and Waste Treatment:*

Emerging Technologies for the Treatment and Utilization of Impaired Water Sources, March 21-25, 2010, San Francisco, California.

579. E. M. Abud*, K. L. Swancutt, D. D. Dionysiou, and S. P. Mezyk, Removing Steroids from Drinking Water Using Advanced Oxidative and Reductive Chemistry. Oral Presentation at *The 239th American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry, Session on Wastewater Treatment Processes and Advanced Oxidation Technologies of the Symposium Sustainable Water Production and Waste Treatment: Emerging Technologies for the Treatment and Utilization of Impaired Water Sources*, March 21-25, 2010, San Francisco, California.

580. Elias Stathatos*, Yongjun Chen, and Dionysios D. Dionysiou, Comparative Studies on Dye Sensitized Solar Cells with Nanostructured TiO_2 Films Prepared at Room or High Temperature. Oral Presentation at *The International Conference on Renewable Energies (ICRE-2010),* April 5-8, 2010, Higher Institute for Applied Science and Technology, Damascus, Syria.

581. Maria G. Antoniou, Armah A. de la Cruz, and Dionysios D. Dionysiou*, Degradation and Reaction Intermediates of Microcystin-LR with Sulphate Radicals Advanced Oxidation Technologies. Oral Presentation at *The 6th European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA 6)*, June 13-16, Prague, Czech Republic.

582. A. Hiskia*, T. M. Triantis, T. Fotiou, T. Kaloudis, P. Falaras, and D. D. Dionysiou, Photocatalytic Decomposition of Microcystin-LR in Natural and Drinking Water Using Nanostructured TiO_2 Materials. Oral Presentation at *The 6th European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA 6)*, June 13-16, Prague, Czech Republic.

583. Falaras et al, SPEA-6

584. PRE-10. July 5-9, 2010, Corfu, Greece.

585. Hyeok Choi* and Dionysios D. Dionysiou, Nanostructured Titanium Oxide Photocatalytic Films and Membranes: Concept and Materials Development. Oral Presentation at *The 18th International Conference on Photochemical Conversion and Storage of Solar Energy (IPS-18)*, July 25-30, 2010, Seoul, South Korea.

586. Miguel Pelaez, Maria Antoniou, Armah A. de la Cruz, Jody Shoemaker, Changseok Han, Vlassis Likodimos, Athanassios G. Kontos, Polycarpos Falaras, and Dionysios D. Dionysiou*, UV, Solar and Visible Light-Activated Non-Metal Doped TiO_2 Photocatalyst: Application to the Destruction of the Cyanotoxin Microcystin-LR. Invited Oral Presentation at *The 6th International Conference on Sustainable Water Environment-Climate Change and Water Infrastructures*, July 29-31, University of Delaware, Newark, Delaware.

587. Dionysios D. Dionysiou*, Maria G. Antoniou, George Anipsitakis, and Armah A. de la Cruz, Sulfate Radical-based Advanced Oxidation Processes: Application to the

Destruction of MC-LR and Disinfection. Invited Oral Presentation at *The 6th International Conference on Sustainable Water Environment-Climate Change and Water Infrastructures*, July 29-31, University of Delaware, Newark, Delaware.

588. Miguel Pelaez, Polycarpos Falaras, Vlassis Likodimos, Athanassios G. Kontos, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Highly Efficient Nanocrystalline Visible light-activated TiO_2 films by Modified Sol-gel Methods for Sustainable "Green" Applications. Oral Presentation at the *240th American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry, Session on Heterogeneous Catalysis for Environmental and Sustainable Energy Applications*, August 22-26, 2010, Boston, Massachusetts.

589. Yongjun Chen*, Yongcheng Song, Suzanne K. Lunsford, and Dionysios D. Dionysiou, Surfactant Self-assembling Sol-Gel Synthesis of Zirconium Dioxide as an Effective Electrode Material for the Detection of Neurotransmitters. Oral Presentation, *Division of Colloid and Surface Chemistry, 240th ACS National Meeting*, August 22-26, 2010, Boston, Massachusetts.

590. Changseok Han, Amos Doepke, Wondong Cho, Armah A. de la Cruz, William R. Heineman, H. Brian Halsall, Vesselin N. Shanov, Mark J. Schulz, Vlassis Likodimos, Polycarpos Falaras and Dionysios D. Dionysiou*, Enhanced Crystallinity of a Carbon Nanotube-based Biosensor for Monitoring Microcystin-LR. Poster Presentation at the *240th American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry, Session on General Posters*, August 22-26, 2010, Boston, Massachusetts.

591. Changseok Han, Miguel Pelaez, Vlassis Likodimos, Athanassios G. Kontos, Polycarpos Falaras and Dionysios D. Dionysiou*, Preparation of Carbon- and Sulfur-doped TiO_2 by Sol-Gel Method for Drinking Water Treatment under Visible Light. Poster Presentation at the *240th American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry, Session on General Posters*, August 22-26, 2010, Boston, Massachusetts.

592. Nicholas M. Bedford, Miguel Pelaez, Dionysios D. Dionysiou, and Andrew J. Steckl*, Photocatalytic Cellulosic Micro/Nano-Fibers by Electrospinning. Oral Presentation at the *Nanofibers for the 3rd Millennium Conference (N3M 2010)*, August 30-September 1, 2010, Raleigh, North Carolina.

593. Miguel Pelaez*, Erick R. Bandala, Jordana Castillo, Patrick S. M. Dunlop, Anthony Byrne and Dionysios D. Dionysiou, NF-co-doped TiO_2 for Visible/Solar Treatment and Disinfection of Water Including Applications in Developing Countries. Poster Presentation at the *Water Energy in Changing Climates Conference*, Sept. 26-29, 2010, Pittsburgh, Pennsylvania.

594. Changseok Han*, Amos Doepke, Wondong Cho, Armah A. de la Cruz, William R. Heineman, H. Brian Halsall, Vesselin N. Shanov, Mark J. Schulz, Vlassis Likodimos, Polycarpos Falaras and Dionysios D. Dionysiou, Development of CNT-based Sensors for Detecting Cyanotoxins in Water. Poster Presentation at *Water Energy in Changing Climates Conference*, September 26-29, 2010, Pittsburgh, Pennsylvania.

595. Xuexiang He*, Kimberly A. Rickman, Stephen Mezyk, and Dionysios D. Dionysiou. UV/H_2O_2, Process for Treatment of β-lactam Antibiotics in Water. Poster Presentation at the *Water Energy in Changing Climates Conference*, Sept. 26-29, 2010, Pittsburgh, Pennsylvania.

596. P. Falaras*, V. Likodimos, G. Romanos, and D. D. Dionysiou, Clean Water: Water Purification with Innovative Photocatalysts (In Greek). Poster Presentation at the *11th Pan-Hellenic Conference of Catalysis*, October 22-23, 2010, Athens, Greece.

597. P. Falaras, V. Likodimos, A. G. Kontos, A. Hiskia, T. M. Triantis, M. Pelaez, and D. D. Dionysiou, Anion Doped Nanostructured Titania for Photacatalytic Decomposition of Cyanotoxins using Visible Light (In Greek). Poster Presentation at the *11th Pan-Hellenic Conference of Catalysis*, October 22-23, 2010, Athens, Greece.

598. Miguel Pelaez, Polycarpos Falaras*, Vlassis Likodimos, Athanassios G. Kontos, Armah A. de la Cruz and Dionysios D. Dionysiou, Synthesis and Characterization of N-F TiO_2 Nanomaterials for MC-LR Photodegradation. Poster Presentation at the *Autumn Event Joint Dissemination Workshop of the nano4water Cluster*, October 26, 2010, Aachen, Germany.

599. V. Maroga Mboula, V. Héquet*, Y. Andrès, M. Pelaez and D. D. Dionysiou, Approach to Evaluate the Efficiency of Novel Photocatalysts under Solar Light for the Elimination of Emerging Pollutants. Poster Presentation at the *Autumn Event Joint Dissemination Workshop of the nano4water Cluster*, October 26, 2010, Aachen, Germany.

600. J. M. Doña-Rodríguez*, C. Fernández-Rodríguez, D. Portillo-Carrizo, C. Han, M. Pelaez, A. G. Kontos, V. Likodimos, D. D. Dionysiou and P. Falaras, Synthesis and Characterization of Novel Highly Active Photocatalysts based on TiO_2. Poster Presentation at the *Autumn Event Joint Dissemination Workshop of the nano4water Cluster*, October 26, 2010, Aachen, Germany.

601. A. Hiskia*, T. Triantis, T. Fotiou, T. Kaloudis, A. G. Kontos, P. Falaras and D. D. Dionysiou, Photodegradation of MC-LR using Innovative TiO_2 Photocatalysts. Poster Presentation at the *Autumn Event Joint Dissemination Workshop of the nano4water Cluster*, October 26, 2010, Aachen, Germany.

602. Xuexiang He, Miguel Pelaez, Christopher D. Williams, Judy A. Westrick, Kevin E. O'Shea, Anastasia Hiskia, Theodoros Triantis, Armah A. de la Cruz and Dionysios D. Dionysiou*. Oral Presentation at the *16th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil (AOTs-16)*, November 15-18, 2010, San Diego, California.

603. Melike Yalılı Kılıç, Xuexiang He, Kadir Kestioğlu and Dionysios D. Dionysiou*, Degradation of Tyrosol Present in Olive Mill Wastewater by UV Radiation in the Presence of Hydrogen Peroxide, Persulfate or Peroxymonosulfate: Implications of Hydroxyl and Sulfate Radicals. Poster Presentation at the *16th International Conference*

on Advanced Oxidation Technologies for Treatment of Water, Air and Soil (AOTs-16), November 15-18, 2010, San Diego California, U.S.A.

604. Xuexiang He, Kimberly A. Rickman, Stephen P. Mezyk, and Dionysios D. Dionysiou*, Photochemical Destruction of β-lactam Antibiotics. Poster Presentation at the *16th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil (AOTs-16)*, November 15-18, 2010, San Diego, California.

605. Kevin E. O'Shea*, Dionysios D. Dionysiou, Weihua Song, and William J. Cooper, Advanced Oxidation of Cyanotoxins. Oral Presentation at the *16th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil (AOTs-16)*, November 15-18, 2010, San Diego, California.

606. Mohammad H. Entezari*, Lin Chen, Dionysios D. Dionysiou, and Kevin E. O'Shea, Nano-magnetite as a Novel Material for the Removal of Microcystin-LR from Water. Oral Presentation at the *16th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil (AOTs-16)*, November 15-18, 2010, San Diego, California.

607. Miguel Pelaez*, Polycarpos Falaras, Vlassis Likodimos, Athanassios G. Kontos, Armah. A. de la Cruz and Dionysios D. Dionysiou, Synthesis and Performance of Highly Active Mixed-phase NF-TiO_2 Composite Photocatalysts for the Degradation of Microcystin-LR. Oral Presentation at the *15th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications (TiO_2-15)*, November 15-18, 2010, San Diego, California.

608. Urooj Khan, Miguel Pelaez, Dionysios D. Dionysiou, and Kevin E. O'Shea*, Degradation of Domoic Acid by UV and Visible Light TiO_2 Photocatalysis. Poster Presentation at the 15th *International Conference on TiO_2 Photocatalysis: Fundamentals and Applications (TiO_2-15)*, November 15-18, 2010, San Diego, California.

609. Changseok Han, Miguel Pelaez*, Vlassis Likodimos, Athanassios G. Kontos, Polycarpos Falaras and Dionysios D. Dionysiou, Synthesis of Sulfur-doped TiO_2 by Sol-Gel Method for Drinking Water Treatment under Visible Light. Poster Presentation at the *15th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications (TiO_2-15)*, November 15-18, 2010, San Diego, California.

610. Miguel Pelaez, Maria Antoniou, Polycarpos Falaras, Vlassis Likodimos, Athanassios G. Kontos, Armah. A. de la Cruz, and Dionysios D. Dionysiou*, Mesoporous Non-metal Doped TiO_2 for Visible Light-induced Photo-assisted Degradation of Microcystin-LR. Oral Presentation in the Area of Materials & Nanotechnology, *Symposium on Redox Processes on Nanoparticles, Nanomaterials, and Nanostructured Systems in the Environment, Pacifichem 2010*, December 15-20, 20010, Honolulu, Hawaii, USA.

611. Maria G. Antoniou, Armah. A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou*, Intermediates and Reaction Pathways from the Degradation of Microcystin-LR with Sulfate Radicals. Oral Presentation in the Area of Environmental Chemistry,

Symposium on Free Radical Chemistry in the Environment, Pacifichem 2010, December 15-20, 2010, Honolulu, Hawaii, USA.

612. Maria G. Antoniou*, Armah. A. de la Cruz, and Dionysios D. Dionysiou, Degradation of Microcystin-LR using Sulfate Radicals Generated through Photolysis, Thermolysis and e-Transfer Mechanisms. Poster Presentation in the Area of Environmental Chemistry, *Symposium on Free Radical Chemistry in the Environment, Pacifichem 2010*, December 15-20, 2010, Honolulu, Hawaii, USA.

613. Changseok Han, Amos Doepke, Wondong Cho, Armah A. de la Cruz, William R. Heineman, H. Brian Halsall, Vesselin N. Shanov, Mark J. Schulz, Vlassis Likodimos, Polycarpos Falaras and Dionysios D. Dionysiou*, Investigation of Carbon Nanotube-based Biosensors for Monitoring Microcystin-LR. Poster Presentation in the Area of Materials & Nanotechnology, *Symposium on Redox Processes on Nanoparticles, Nanomaterials, and Nanostructured Systems in the Environment, Session on Posters, Pacifichem 2010*, December 15-20, 2010, Honolulu, Hawaii.

614. A. Hiskia*, T. Triantis, T. Fotiou, T. Kaloudis, P. Falaras, and D. Dionysiou, Photocatalytic Degradation of Microcystin-LR using Visible-Light Activated Nanostructured TiO_2 Materials. Oral Presentation at *The 4th National Environmental Conference of Macedonia*, March 18-20, 2011, Thessaloniki, Greece.

615. Miguel Pelaez, Polycarpos Falaras, Vlassis Likodimos, Athanassios G. Kontos, Armah A. de la Cruz and Dionysios D. Dionysiou*, Novel NF-TiO_2-P25 Composite Photocatalyst for the Removal of Microcystins and Cylindrospermopsin under Visible and Solar Light. Oral Presentation in the *Division of Industrial and Engineering Chemistry, 9th Symposium on Nanotechnology and the Environment: Green Nanotechnology, 241st American Chemical Society (ACS) National Meeting & Exposition*, March 27-31, 2011, Anaheim, California.

616. Changseok Han, Miguel Pelaez, Vlassis Likodimos, Athanassios G. Kontos, Polycarpos Falaras and Dionysios D. Dionysiou*, Synthesis, Characterization, and Evaluation of Visible Light-Activated Sulfur-doped TiO_2 for the Treatment of Cyanotoxins in Water. Poster Presentation in the *Division of Environmental Chemistry, General Poster Session, 241st American Chemical Society (ACS) National Meeting & Exposition*, March 27-31, 2011, Anaheim, California.

617. Changseok Han, Miguel Pelaez, Vlassis Likodimos, Athanassios G. Kontos, Polycarpos Falaras and Dionysios D. Dionysiou*, Synthesis, Characterization, and Evaluation of Visible Light-Activated Sulfur-doped TiO_2 for the Treatment of Cyanotoxins in Water. Poster Presentation in the *Sci-Mix Poster Session, 241st American Chemical Society (ACS) National Meeting & Exposition*, March 27-31, 2011, Anaheim, California.

618. Lijuan Sang, Xuexiang He*, George Sorial, Souhail R. Al-Abed, and Dionysios D. Dionysiou, Study on the Performance of Oxone as the Disinfectant Agent and the Impact of Nanoparticles from Personal Care Products in Pool Water. Poster Presentation in the Symposium on *Occurrence, Detection, Removal, and Environmental Fate of*

Pharmaceutical and Personal Care Products in Wastewater, Groundwater, and Other Sources of Water Supply, Division of Environmental Chemistry, 241st American Chemical Society (ACS) National Meeting & Exposition, March 27-31, 2011, Anaheim, California.

619. Chun Zhao, Miguel Pelaez, Huiping Deng and Dionysios D. Dionysiou*, Photodegradation of the Antibiotic OTC in Aqueous Solution by Solar/Visible Light: Comparison between Photolysis and Photocatalysis with NF-TiO_2. Poster Presentation, *Division of Environmental Chemistry, General Poster Session,* 241st American Chemical Society (ACS) National Meeting & Exposition, March 27-31, 2011, Anaheim, California.

620. Chun Zhao, Miguel Pelaez, Huiping Deng and Dionysios D. Dionysiou*, Photodegradation of the Antibiotic OTC in Aqueous Solution by Solar/Visible Light: Comparison between Photolysis and Photocatalysis with NF-TiO_2. Poster Presentation at the *Sci-Mix Poster Session, 241st American Chemical Society (ACS) National Meeting & Exposition*, March 27-31, 2011, Anaheim, California.

621. Xuexiang He*, Armah A. de la Cruz and Dionysios D. Dionysiou, Destruction of Microcystins and Cylindrospermopsin in Various Water Samples by UV/H_2O_2 Process. Oral Presentation at the *241st American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry*, March 27-31, 2011, Anaheim, California.

622. Xuexiang He*, Kimberly Rickman, Stephen Mezyk, and Dionysios D. Dionysiou, Destruction of Model Antibiotics by UV-254 nm Based Advanced Oxidation Processes. Oral Presentation at the *241st American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry*, March 27-31, 2011, Anaheim, California.

623. L. Chen, E. Mohammad, D. Dionysiou, and K. O'Shea*, Application of Magnetic Particles for the Removal of Microcystin-LR. Oral Presentation in the Division of Environmental Chemistry (paper # 130), *241st American Chemical Society (ACS) National Meeting & Exposition*, March 27-31, 2011, Anaheim, California.

624. Kimberly A. Rickman*, Stephen P. Mezyk, Xuexiang He, Dionysios D. Dionysiou, and Armah A. de la Cruz, Sulfate Radical Removal of Antibiotics in Waters Containing DOM. Oral Presentation in the Division of Environmental Chemistry, *241st American Chemical Society (ACS) National Meeting & Exposition*, March 27-31, 2011, Anaheim, California.

625. Miguel Pelaez*, Polycarpos Falaras, Erick R. Bandala, Patrick Dunlop, Anthony Byrne, Armah A. de la Cruz and Dionysios D. Dionysiou, TiO_2-based Enhanced Photocatalytic Degradation and Disinfection of Water Under Solar Light Irradiation. Oral Presentation at The *20th IOA World Congress – 6th IUVA World Congress*, May 23-27, 2011, Paris, France.

626. Xuexiang He, Miguel Pelaez*, Armah A. de la Cruz, and Dionysios D. Dionysiou, Destruction of Microcystins and Cylindrospermopsin in Various Water Samples by UV/H_2O_2 Process. Short Oral and Poster Presentation at *The 20th IOA World Congress – 6th IUVA World Congress*, May 23-27, 2011, Paris, France.

627. Dionysios D. Dionysiou, TiO_2 and Visible Light-Activated (VLA) non-metal containing TiO_2 - Synthesis, Characterization and Mechanistic Aspects in the Photocatalytic Degradation of Cyanotoxins in Water, Invited Oral Presentation at the International Workshop on Frontiers in Environmental Chemical Research, May 30, 2011, POSCO International Center, POSTECH, Pohang, South Korea.

628. Xuexiang He, Kimberly A. Rickman, Stephen P. Mezyk, and Dionysios D. Dionysiou*, Removal of β-lactam Antibiotics by Advanced Oxidation Processes. Invited Oral Presentation at *The 2011 International Symposium on Environmental Science and Technology*, June 1-4, 2011, Dongguan, Guangdong Province, China.

629. Dionysios D. Dionysiou*, Visible Light-Activated (VLA) Non-metal Containing TiO_2 - Synthesis, Characterization, and Mechanistic Aspects in the Photocatalytic Degradation of Cyanotoxins. Oral Presentation at the *US-Ireland Workshop on VLA Photocatalysis for the Treatment of Algal Toxins*, June 21, 2011, University of Ulster, Northern Ireland.

630. Dionysios D. Dionysiou*, Advances in Visible Light Active Photocatalytic Materials. Invited Oral Presentation at the *Nano for Clean Water Conference, Symposium on Solar Photocatalytic Reactor Engineering for Water Disinfection*, June 22, 2011, University of Ulster, Northern Ireland.

631. Urooj Khan, Miguel Pelaez, Dionysios D. Dionysiou, Kevin E. O'Shea*, TiO_2 Photocatalytic Degradation of Domoic Acid Under UV and Visible Light. Invited Oral Presentation at the *Nano for Clean Water Conference, Symposium on Solar Photocatalytic Reactor Engineering for Water Disinfection*, June 22, 2011, University of Ulster, Northern Ireland.

632. Jeremy W. J. Hamilton, J. Anthony Byrne, Patrick S. M. Dunlop, Miguel Pelaez, Dionysios D. Dionysiou, Kevin E. O'Shea, Suresh C. Pillai, Nicholas Nolan, and Darragh Ryan, Photoelectrochemical Response of Visible Light Active Titania. Poster Presentation at the *Nano for Clean Water Conference, Symposium on Solar Photocatalytic Reactor Engineering for Water Disinfection*, June 22, 2011, University of Ulster, Northern Ireland.

633. A. S. M. Clarke, P. S. M. Dunlop, , J. A. Byrne, J. W. J. Hamilton, M. Pelaez, and D. D. Dionysiou, Inactivation of Pathogens on Ultraviolet and Visible Light Activated TiO_2 Photocatalysts. Poster Presentation at the *Nano for Clean Water Conference, Symposium on Solar Photocatalytic Reactor Engineering for Water Disinfection*, June 22, 2011, University of Ulster, Northern Ireland.

634. Miguel Pelaez, Polycarpos Falaras, Vlassis Likodimos, Armah A. de la Cruz, Dionysios D. Dionysiou*, Novel and Sustainable TiO_2-based Nanotechnology for the Removal of Cyanotoxins. Oral Presentation at *The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N-3)*, June 26-30, 2011, Crete Island, Greece.

635. Changseok Han*, Miguel Pelaez, Vlassis Likodimos, Athanassios G. Kontos, Polycarpos Falaras and Dionysios D. Dionysiou, Visible Light-activated Sulfur-doped TiO_2 Films for the Degradation of Microcystin-LR in Water. Poster Presentation at *The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N-3)*, June 26-30, 2011, Crete Island, Greece.

636. Changseok Han*, Amos Doepke, Wondong Cho, Armah A. de la Cruz, William R. Heineman, H. Brian Halsall, Vesselin N. Shanov, Mark J. Schulz, Vlassis Likodimos, Polycarpos Falaras and Dionysios D. Dionysiou, Carbon Nanotubes-based Biosensor for Detecting Cyanotoxins in Water. Poster Presentation at *The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N-3)*, June 26-30, 2011, Crete Island, Greece.

637. Nikolaos Moustakas, Athanassios G. Kontos, Theodora Fotiou, Fotis Katsaros, Vlassis Likodimos, Theodoros M. Triantis, Anastasia Hiskia, Dionysios D. Dionysiou and Polycarpos Falaras*, Tuning Sol-Gel Growth of Nitrogen Doped TiO_2 for Microcystin-LR degradation under Visible Light. Poster Presentation (Book of Abstracts p. 31) at *The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N-3)*, June 26-30, 2011, Crete Island, Greece.

638. Antigoni Katsanaki, Polycarpos Falaras*, Thomas Maggos, Miguel Pelaez, Athanassios G. Kontos, Vlassis Likodimos, and Dionysios D. Dionysiou, Photocatalytic Degradation of Nitrogen Oxides on N-F Co-Doped Titania Films Under Visible Light. Poster Presentation (Book of Abstracts p. 70) at *The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N-3)*, June 26-30, 2011, Crete Island, Greece.

639. Dimitrios S. Tsoukleris, Evangelia A. Pavlatou, Dionysios D. Dionysiou, Polycarpos Falaras*, Chemical and Mechanical Stability of Nanoengineered Titania Thin Films. Poster Presentation (Book of Abstracts p. 138) at *The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N-3)*, June 26-30, 2011, Crete Island, Greece.

640. D. Alrousan, J. A. Byrne*, D. D. Dionysiou, P. S. M. Dunlop, P. Fernandez-Ibanez, J. W. J. Hamilton, E. Magee, M. Pelaez and C. Sheeran, Photocatalytic Disinfection of Water and Surfaces. Oral Presentation at *The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N-3)*, June 26-30, 2011, Crete Island, Greece.

641. J. Anthony Byrne, Jeremy W. J. Hamilton*, Patrick S. M. Dunlop, Miguel Pelaez, Dionysios D. Dionysiou, Suresh C. Pillai, Nicholas Nolan, and Darragh Ryan, Electrochemical Characterization of Nitrogen Doped Titania for Visible Light Applications. Oral Presentation at *The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N-3)*, June 26-30, 2011, Crete Island, Greece.

642. Miguel Pelaez*, Armah de la Cruz, Polycarpos Falaras and Dionysios Dionysiou, Novel TiO_2-based Nanotechnology Process Utilizing Solar Light to Treat Drinking Water in a Sustainable Way. Poster Presentation at the 2011 Association of Environmental Engineers and Science Professors (AEESP) Research and Education Conference, July 10-12, 2011, Tampa, Florida.

643. Miguel Pelaez*, Armah de la Cruz, Kevin O'Shea, Polycarpos Falaras and Dionysios Dionysiou, Influence of Natural Organic Matter in the Photocatalytic Degradation of Microcystin-LR with Visible and Solar Light Activated NF-TiO_2. Poster Presentation at the Fourth IWA Specialty Conference on Natural Organic Matter: From Source to Tap and Beyond, July 27-29, 2011, Costa Mesa, California.

644. Miguel Pelaez, Erick R. Bandala, Jordana Castillo Patrick S.M. Dunlop, Anthony Byrne and Dionysios D. Dionysiou*, Environmentally Sustainable Route for Drinking Water Disinfection: Solar Light-activated TiO_2 Photocatalysis. Invited Oral Presentation at the 43rd IUPAC World Chemistry Congress. July 30-August 7, San Juan, Puerto Rico, 2011.

645. Xuexiang He, Armah A. de la Cruz and Dionysios D. Dionysiou*, Hydroxyl Radical Promoted Destruction of Microcystin-LR and Cylindrospermopsin in UV-254 nm/H_2O_2 Process. Oral Presentation at the *242nd American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry*, August 28-September 1, 2011, Denver, Colorado.

646. Xuexiang He, Kimberly A. Rickman, Stephen P. Mezyk, and Dionysios D. Dionysiou*, Kinetics and Pathways of the Destruction of β-lactam Antibiotics by Hydroxyl Radicals. Poster Presentation at the *242nd American Chemical Society (ACS) National Meeting, Division of Environmental Chemistry*, August 28-September 1, 2011, Denver, Colorado.

647. Changseok Han, Miguel Pelaez*, Vlassis Likodimos, Athanassios G. Kontos, Polycarpos Falaras, Armah de la Cruz, and Dionysios D. Dionysiou, Solvent Effects on Sulfur-doped TiO_2 Films Synthesized by a Sol-gel Method. Poster Presentation at the *ACS 242nd National Meeting & Exposition*, August 28-September 1, Denver, Colorado.

648. Changseok Han, Miguel Pelaez*, Vlassis Likodimos, George E. Romanos, Polycarpos Falaras and Dionysios D. Dionysiou, Implication of Composite Photocatalysts Incorporating Carbon-based Nanomaterials with Potential use in Drinking Water Treatment: Mechanical and Chemical Stability. Poster Presentation at *ACS 242nd National Meeting & Exposition*, August 28-September 1, Denver, Colorado.

649. Guanglong Liu, Changseok Han, Miguel Pelaez*, Vlassis Likodimos, Athanassios G. Kontos, Polycarpos Falaras, Duanwei Zhu, and Dionysios D. Dionysiou, Heterogeneous Photocatalytic Degradation of Microcystin-LR by Visible Light-activated C-doped TiO_2 Nanoparticles in Water. Poster Presentation at the *ACS 242nd National Meeting & Exposition*, August 28-September 1, 2011, Denver, Colorado.

650. Yongjun Chen, Xiuyun Wang*, Suzanne K. Lunsford, Huangxian Ju, and Dionysios D. Dionysiou, Electrochemical Behavior of Dopamine at a Sonogel Carbon Electrode

Modified with ZrO_2 Film. Poster Presentation at the Division of Analytical Chemistry at the 242nd ACS National Meeting, Aug. 28 - Sept. 1.2011, Denver, Colorado.

651. Xuexiang He, Armah A. de la Cruz, and Dionysios D. Dionysiou, Removal of Cylindrospermopsin from Water through Photochemical Oxidation. Oral Presentation at *The 2nd North American Conference on Ozone, Ultraviolet & Advanced Oxidation Technologies*, September 19-20, 2011, Toronto, Ontario, Canada.

652. Dionysios D. Dionysiou*, Destruction of Cyanotoxins by UV 254 nm-based Advanced Oxidation Processes and Nanotechnologies for Sustainable Water Purification. Oral Presentation at the Research Committee Workshop, 73rd Annual Ohio American Water Works Association, September 20-23, Cincinnati, Ohio.

653. Rafat Khalaphallah, Vanessa Maroga-Mboula, Manuel Pelaez, Valérie Héquet, Yves Andres and Dionysios D. Dionysiou, Inactivation of *E. coli* and *P. aeruginosa* in Greywater by NF-TiO_2 Photocatalyst under Visible Light. Submitted for Oral Presentation at the IWA Regional Conference on Wastewater Purification & Reuse, WWPR2012, March 28-30, 2012, Heraklion, Crete, Greece.

CURRENT AND PREVIOUS TEACHING AND RESEARCH GRANTS AND CONTRACTS

National Science Foundation

1. Collaborative Research: Degradation Mechanism of Cyanotoxins Using Novel Visible Light-Activated Titania (TiO_2) Photocatalysts, (D. D. Dionysiou), National Science Foundation, $ 250,000, 09/01/2010 to 08/31/2013. Effort: Summer 0.5. This is a collaborative proposal between University of Cincinnati, two institutions in Ireland and Florida International University. The overall requested budget is about $ 1 M. Dr. Dionysiou serves as the PI of the whole consortium.

2. NUE: Integration of Nanoscale Devices and Environmental Aspects of Nanotechnology into Undergraduate Engineering and Science Curricula, National Science Foundation, 20% Effort, (J. Boerio, D. D. Dionysiou, A. Kukreti, V. Shanov, D. Shi) $200,000.00, 4/1/2011-3/31/2013.

3. IGERT: Bioapplications of Membrane Science and Technology, (PI: D. Butler, Co-PIs: R. Millard, D. D. Dionysiou, S. Hoath, J. Fried), National Science Foundation, $ 3,644,410, 10/1/2003 to 9/30/2011 (no cost extension from 9/30/2008). Dr. Dionysiou is serving as Co-PI on this project from 3/1/2011 to 9/30/2011 (with remaining amount of funding of $ 550,000), 2% Effort (Academic: 0.18 months).

4. "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation, $400,000, July 1, 2005-June 30, 2010; No Cost extension, June 30, 2011.

5. Supplemental Funds to "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation, $30,000, July 1, 2005-June 30, 2010.; No-Cost extension, June 30, 2011.

6. Research Experience for Undergraduates (REU) as Supplement to "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation, $12,000, July 1, 2007-June 30, 2010; No-Cost extension, June 30, 2011.

7. Research Experience for Undergraduates (REU) as Supplement to "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation, $6,000, July 1, 2006-June 30, 2007.

8. Research Experience for Undergraduates (REU) as Supplement to "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation, $6,000, July 1, 2005-June 30, 2006.

9. "NER (Nanotechnology Exploratory Research): Fabrication of TiO_2 Nanoparticles and Films for Environmental Applications Using Ionic Liquid-Based Self Assembling Sol-Gel Methods," National Science Foundation, $ 100,000, June 1, 2003-May 31, 2005.

10. "The Use of Ionic Liquids for the Remediation of Wastewater Contaminated by Halogenated Organics," National Science Foundation (through Tufts University), $150,000, Sep. 1, 2000-Aug. 31, 2002, (G. D. Botsaris, PI; D. D. Dionysiou and R.-Y. Qian, Co-PIs), (Ranked # 1 by the Reviewer Panel), Effort 33%. Note: Title of Subcontract from Tufts University: "Advanced Oxidation Technologies, $50,000).

Competitive Federal Projects and Industry Projects (Including from National Science Foundation)

1. Visible Light-Activated Mixed Anatase/Brookite Heterojunction Titania Photocatalysts For Treatment of Polluted Water, (PI: Adel A. Ismail; PI: Dionysios Dionysiou, 50%/50%), U.S. Department of Agriculture, U.S. - Egypt Joint Research Grants For Collaborative Research Grant, $ 250,000, 6/1/2011-5/30/2013, Summer 5% Effort (Summer: 0.15 months).

2. "NIREAS International Water Research Center", (PI. Fatta-Kassinos, Co-PIs, Dionysiou, Christodoulou, Kostarelos, Papanastasiou, Kassinis), The Research Promotion Foundation's Framework Programme, Cyprus Development Foundation, The Republic of Cyprus, $ 194,400 (out of 1.4 Million Euros total) 1/1/2011-12/31/2015. Summer 1.0 month.

3. "Collaborative Research: Degradation Mechanism of Cyanotoxins Using Novel Visible Light-Activated Titania (TiO_2) Photocatalysts", (D. D. Dionysiou), National Science Foundation, $ 250,000, 09/01/2010 to 08/31/2013. Effort: Summer 0.5. This is a collaborative proposal between University of Cincinnati, two institutions in Ireland and Florida International University. The overall requested budget is about $ 1 M. Dr. Dionysiou serves as the PI of the whole consortium.

4. "NUE: Integration of Nanoscale Devices and Environmental Aspects of Nanotechnology into Undergraduate Engineering and Science Curricula", National Science Foundation, 20% Effort, (PI: J. Boerio; Co-PIs: D. D. Dionysiou, A. Kukreti, V. Shanov, D. Shi) $200,000.00, 4/1/2011-3/31/2013.

5. "Development of Carbon Nanotube-based Biosensor for Monitoring Microcystin-LR in Water", Ohio State University Research Foundation, $17,500, 3/1/2011-2/28/2012, 8% Effort (Academic: 0.72 months).

6. "IGERT: Bioapplications of Membrane Science and Technology", (PI: D. Butler, Co-PIs: R. Millard, D. D. Dionysiou, S. Hoath, J. Fried), National Science Foundation, $3,644,410, 10/1/2003 to 9/30/2011 (no cost extension from 9/30/2008). Dr. Dionysiou is serving as Co-PI on this project from 3/1/2011 to 9/30/2011 (with remaining amount of funding of $ 550,000), 2% Effort (Academic: 0.18 months).

7. "Laboratory and Analytical Support in the Area of Fate and Remediation of Persistent Organic Pollutants (POPS) in Sediment", (PI: D. D. Dionysiou), Pegasus Technical Services/Environmental Protection Agency, WA 0-24, $25,212, 4/1/2011 to 9/29/2011, Effort: 2.54% Academic (0.085 months) and 3.13% (0.2 months) Summer.

8. "Laboratory and Analytical Support in the Area of Nanomaterials", (PI: D. D. Dionysiou), Pegasus Technical Services/Environmental Protection Agency, WA 0-16, $36,543, 2/2/2011 to 9/29/2011, Effort: 2.54% (0.085 months) Academic and 3.13% (0.2 months) Summer.

9. "CAREER: Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water", National Science Foundation, $400,000, July 1, 2005-June 30, 2010; No Cost extension, June 30, 2011.

10. "Monitoring, Photochemical Fate, and Oxidative Degradation by UV and Solar-based Technologies of Cyanotoxins in Freshwater Estuaries," (D. D. Dionysiou, PI; Kevin O'Shea, Judy Westrick, PBS&J, co-PIs) U.S. EPA STAR Program, $ 679,589, April 1, 2007-March 31, 2010. No cost extension April 30, 2011.

11. "Destruction of Cyanobacterial Toxins in Water with Germicidal UV-254 nm-based Homogeneous and Solar-based Advanced Oxidation Processes," Ohio State University Research Foundation, $25,000, March 1, 2009-February 28, 2010; no cost extension until Nov. 30, 2010, Academic 0.81.

12. "Enhanced Photocatalytic Solar Disinfection (ENPHOSODIS) of Water as Effective Intervention Against Waterborne Diarrhoea Diseases at Household Level and as Emergency Relief in the Aftermath of Natural or Man-made Disasters in Marginal Rural Zones in Developing Countries," US EPA P3 Competition-G2008-P3-Z5 (D. D. Dionysiou, PI; Erick R. Bandala and Patrick Dunlop, Collaborators), $10,000, September 01, 2008 – August 31, 2009.

13. "Nanoscale Modification and Functionalization of Carbon Electrodes for the Detection of Harmful Organic Chemicals in Water such as Phenol and Domoic Acid," Water Resources Research Institute, US Geological Survey (USGS) through the Ohio State University Research Foundation, (Dionysios D. Dionysiou, PI; Suzanne Lunsford from Wright State University, co-PI), $ 27,174, March 1, 2007-February 29, 2008.

14. "Use of Peroxymonosulfate Oxidants for the Destruction of Sediments and Groundwater Contaminants", U.S. EPA through Pegasus Technical Services, Inc., WA# 08, $ 81,068, September 30, 2007-September 29, 2008.

15. "Use of Peroxymonosulfate Oxidants for the Destruction of Sediments and Groundwater Contaminants", U.S. EPA through Pegasus Technical Services, Inc., WA# 08, $ 33,590, July 1 2007-September 30 2007.

16. "Use of Peroxymonosulfate Oxidants for the Destruction of Sediments and Groundwater Contaminants", U.S. EPA through Pegasus Technical Services, Inc., WA# 08, $ 60,032, Effort 94% ($ 56,430), April 2006-June 2007.

17. "DuPont Young Professor Award," Du Pont De Nemours and Company, $75,000, June 1, 2005-May 31, 2009.

18. "Character and Controlling Membrane Biofouling", Water Resources Research Institute, US Geological Survey (USGS) through the Ohio State University Research Foundation, (D. B. Oerther, PI; D. D. Dionysiou, Co-PI), $28,127, Effort 50%, March 1 2006 – February 28 2007.

19. "High Performance TiO_2 Photocatalytic Coatings and Membranes for the Purification, Disinfection and Recycle of Water and Air in Space Applications," National Aeronautics and Space Administration (NASA), $ 329,753, Jan. 12 2003-Jan. 11 2006; No cost extension until Jan. 14 2007.

20. "Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water," Ohio Board of Reagents, $62,262, July 1, 2005-June 30, 2006.

21. "Use of Persulfate and Peroxymonosulfate Oxidants for the Destruction of Groundwater Contaminants," Water Resources Research Institute, US Geological Survey (USGS) through the Ohio State University Research Foundation, $ 15,000, March 1, 2005-Feb. 28, 2006.

22. "NER (Nanotechnology Exploratory Research): Fabrication of TiO_2 Nanoparticles and Films for Environmental Applications Using Ionic Liquid-Based Self Assembling Sol-Gel Methods," National Science Foundation, $ 100,000, June 1, 2003-May 31, 2005.

23. "Degradation of Organics in Sediments by Field Effect TiO_2 Catalysis," U. S. Environmental Protection Agency, Contract No. 68-C-00-159, Task Order No. 73, $60,828, Effort 94% ($57,178), Nov. 3, 2004-Dec. 31, 2005.

24. "Use of Room Temperature Ionic Liquids as Solvent Media for the Treatment of Organic Contaminants from Sediments and Solid Matrices," NOAA/UNH Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET), NOAA Grant Number: NA04NOS4190109, $ 25,000, May 1, 2004-December 31, 2005.

25. "P3 Award: A National Student Design Competition for Sustainability focusing on People, Prosperity, and the Planet-Biotemplating of Titanium Dioxide Nanoparticles for the Green Production of Photochemically Active Catalysts: Synthesis, Characterization, and Photocatalytic Evaluation," U.S. Environmental Protection Agency, Grant Number SU831824, $10,000, Sep. 1, 2004-May 31, 2005.

26. "Cobalt/Oxone Advanced Oxidation Process," Du Pont De Nemours and Company, $22,000, Oct. 2003- Sep. 2004.

27. "Use of Novel Hydrophobic Ionic Liquids for Extraction and *in-situ* Destruction of Polycyclic Aromatic Hydrocarbons," The Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET), $ 15,000, Jan. 1, 2002-Dec. 31, 2002.

28. "Optimized Treatment of MTBE Contaminated Water Using Fenton's Reagent," U. S. Environmental Protection Agency (EPA), Contract No. 68-C-00-159, Task Order No. 5., $ 21,000, April 2001-Nov. 2001.

29. "Assessment of Effects of Risk Management Activities on the Speciation and Transport of Mercury in Aquatic Sediments," U. S. EPA, Contract No. 68-C-00-159, Task Order No. 16 (D. D. Dionysiou, PI; George A. Sorial, Co-PI), $66,205, Effort 45%, Dec. 2001-Aug. 2001.

30. "Preventing the Initiation of Biofouling of Membrane Bioreactors in Wastewater Treatment," Water Resources Research Institute, Ohio State University Research Foundation, (D. B. Oerther, PI; D. D. Dionysiou and George A. Sorial, Co-PIs), $ 79,810, Effort 33%, Sep. 2002- Aug. 2003.

31. "The Use of Ionic Liquids for the Remediation of Wastewater Contaminated by Halogenated Organics," National Science Foundation (through Tufts University), $150,000, Sep. 1, 2000-Aug. 31, 2002, (G. D. Botsaris, PI; D. D. Dionysiou and R.-Y. Qian, Co-PIs), (Ranked # 1 by the Reviewer Panel), Effort 33%. Note: Title of Subcontract from Tufts University: "Advanced Oxidation Technologies, $50,000).

International Projects

32. "Water Detoxification Using Innovative vi-Nanocatalysts", Seventh Framework Programme, European Union; Several Research groups in Europe are involved with Demokritos Research Center in Greece as lead (Dr. Polycarpos Falaras et al), ~1.7M Euros, June 2009-May 2012, D. D. Dionysiou is serving as the only International Collaborator outside of Europe. No direct funding is provided to Dr. Dionysiou but funds are available for research collaboration and specific student training in various laboratories in Greece, Spain, Portugal, Italy, and U.K.

33. "NIREAS International Water Research Center", (Dionysiou, Christodoulou, Fatta-Kassinos, Kostarelos, Papanastasiou), The Research Promotion Foundation's Framework Programme, The Republic of Cyprus, ~1.4 M Euros, Infrastructure Proposal, June 2009-May 2013, Accepted for Funding and currently in the process of negotiation as it has been a reduction in the original budget from $2.5 M to 1.4 M (as was the case from 33 to 50% reduction in all budgets of the nine centers approved) due to budget cuts resulted from the financial crisis. Dr. Dionysiou will not receive any direct funding in the US if the project is finally funded but funds will be provided to a post doctoral associate from Cyprus to work in Dr. Dionysiou's group on Drinking water research for four years.

34. "Synthesis of Visible-Light Functional $TiO_{2-x}N_x$ Nanoparticles and Films and their Application for the Decomposition of Carbamide and Organophosphate-based Pesticides in Water"; Scientific and Technological Cooperation between University of Patras, Greece, and the University of Cincinnati, USA; Funded by the General Secretariat for Research and Technology, International Science and Technology Directorate, Bilateral Relations Division, Ministry of Development, Hellenic Republic, (E. Stathatos, PI; D. D. Dionysiou, International Collaborator). 56,000 Euros, June 2007-Dec. 2008.

35. "Evaluate the Efficiency of RTILs as Solvents to Regenerate Three-Way Catalytic Converters," University of Cyprus, $ 12,119, July 2004-June 15, 2007.

Other Projects

36. "Sustainable Environmental Nanotechnologies: Fundamentals, Applications, and Implications", Center of Sustainable Urban Engineering (SUE) of the University of Cincinnati, (Dionysios D. Dionysiou, PI; George Sorial, Bill Connick, Pramod Kulkarni, Elias Stathatos, Erick Bandala, co-PIs) $20,000, October 1, 2007-Sep. 30, 2008.

37. "Destruction of Microcystin-LR Cyanobacteria Toxin in Sources of Drinking Water Using UV-Based Advanced Oxidation Technologies," University of Cincinnati Research Council, $ 5,000, May 2003-May 2004.

38. "Innovative Method for the Generation of Hydroxyl Radicals to Oxidize and Eliminate Recalcitrant Organic Contaminants and Arsenic Species in Contaminated Water," University of Cincinnati Research Council, $ 5,000, May 2001-May 2002.

39. "Advanced Training for Learning State of the Art Instrumentation for Measuring Environmentally Hazardous Organic and Inorganic Contaminants in Water," University of Cincinnati Faculty Development Council, (Dionysios D. Dionysiou, PI; George Sorial and Daniel B. Oerther, Co-PIs), $7,500, 33.3%, March 2001-March 2002.

40. "Advanced Laboratory Series for Environmental Engineering and Science Education, Integrating Discipline-Based Labs in Cross-Cutting Education," Department of Civil and Environmental Engineering, University of Cincinnati, Jan. 2001, (D. B. Oerther, D. D. Dionysiou, George A. Sorial, Co-PIs), $ 24,000, Effort 33.3%.

Total Individual External Funding Received/Committed ((9/2000-9/2011): $ > 3 M
Total Individual Internal Funding Received/Committed (9/2000-9/2011): $ 40,490
Total Collaborative Funding Received/Committed (9/2000-9/2011): $ > 7 M

PENDING RESEARCH AND TEACHING PROPOSALS

EXAMPLES OF PREVIOUSLY SUBMITTED NON-FUNDED TEACHING AND RESEARCH PROPOSALS

National Science Foundation

1. "NIRT: $TiO_{2-x}N_x$ and SiO_2 Nano-Surfaces for Destruction, Detection, and Biorecognition of Cyanobacterial Toxin", National Science Foundation, $1,600,000 (D. D. Dionysiou, PI; V. V. Guliants, D. B. Oerther, Co-PIs), Effort 33.3%, May 1, 2006-April 30, 2010, declined.

2. "Nano-Surfaces and Biomolecules-Surface Interactions and Biorecognition", Ohio Board of Regents, $65,340, (D. D. Dionysiou, PI; V. V. Guliants, D. B. Oerther, Co-PIs), Effort 33.3%, May 1, 2006-April 30, 2010, declined.

3. "Synthesis of Visible-Light Functional $TiO_{2-x}N_x$ Nanoparticles and Films Using Confined-Structure Self-Assembling-Based Sol-Gel Methods," National Science Foundation, $160,000, June 2005- Dec. 2006, declined.

4. "Cobalt/Peroxymonosulfate and Related Transition Metal Chemical Oxidation for Water Treatment," National Science Foundation, $407,342, Oct. 1, 2003, 2003- Sep. 30, 2006, Rejected August 2003.

5. "CAREER: Novel Nanostructured Photocatalytic Coatings for Water Treatment," National Science Foundation, Submitted July 2002, $ 400,000, Jan. 2003-Dec. 2007, Rejected January 2003.

6. "Cobalt/Peroxymonosulfate and Related Transition Metal Chemical Oxidation for Water Treatment," National Science Foundation, $377,817, (D. D. Dionysiou, PI, G. A. Sorial, Co-PI), Effort 50%, June 1, 2003- May 31, 2006, Rejected February 2003.

7. "NER: Fabrication of Novel Nanoporous Ceramic Photocatalytic Membranes for Integrated Disinfection-Advanced Oxidation-Membrane Reactors in Drinking Water Applications," National Science Foundation, Submitted Dec. 2001, $100,000, July 2002-June 2003, Rejected June 2002.

8. "CAREER: Novel Photocatalytic Coatings for Environmental Applications," National Science Foundation, Submitted July 2001, $ 375,000, 2002-2006, Rejected January 2002.

9. "Novel Concepts in the Preparation of Integrated Membranes with Enhanced Anti-biofouling Properties for Drinking Water Treatment and Desalination," April 1, 2004-March 31, 2006, National Science Foundation, $120,000 (D. D. Dionysiou, PI; Isabel Escobar, University of Toledo, Co-PI), Effort 66.7%. Rejected October 2004.

Other Competitive Proposal Submitted to Federal Agencies

10. "Thermally and Chemically Stable Inorganic Membranes for Carbon Dioxide Separation from Flue Gas," Ohio Coal Development Office, (Vadim Guliants, PI; D. D. Dionysiou, Co-PI) $ 160,000, Effort 25% ($ 40,000) 9/1/2007-8/31/2009, declined July 2007.

11. "Extraction of Organic Compounds from Sorbents using Ionic Liquids followed by Destruction of Organic Compounds in Extract using Photocatalytic Technologies," National Science Foundation, $119,963, 9/1/2007-8/31/2010, Rejected.

12. "Fenton-Based Processes," Institute of Hazardous Materials Management (IHMM), $10,000, 6/1/2007-5/31/2008, Declined.

13. "Improvement of Wet Weather Treatment Facility Performance with Use of Polymer Addition and UV Disinfection," Metropolitan Sewer District, (P. L. Bishop, PI; D. D. Dionysiou, Co-PI) $ 40,000, Effort 33% ($ 13,200) Jan. 2005- Aug. 2005.

14. "Molecular Microbial Ecology of Biofouling in Membrane Bioreactor Subsystems for Human Support Technology," National Aeronautics and Space Administration, (D. B. Oerther, PI; D. D. Dionysiou, Co-PI), $ 598,347, Effort 50% ($299,174), May 2005-April 2008.

15. "Removal of Disinfection Byproducts (DBP's) in Drinking Water Distribution Systems by Means of Modular, Unmanned, Titanium Dioxide Electrocatalytic Reactor," American Water Works Association Research Foundation, $149,992, July 2004-June 2006, Rejected June 2004.

16. "Use of Water Immiscible Room Temperature Ionic Liquids for the Remediation of Contaminated Sediments in Estuarine Systems," The Cooperative Institute for Coastal and Estuarine Environmental Technology, $247,690, (D. D. Dionysiou, PI, G. A. Sorial, and A. P. Khodadoust, Co-PIs), Effort 70%, Aug. 2003-July 2005, Rejected June 2003.

17. "Predicting the Fate of Mercury in Aquatic Sediments after Applying Remedial Actions for Mercury Pollution Control," National Oceanic and Atmospheric Administration through CICEET, $20,000 (D. D. Dionysiou, PI, G. A. Sorial, Co-PI), Effort 50%, May 1, 2003- Feb 29 2004, Rejected March 2003.

18. "Pulse UV Photolytic and TiO_2 Photocatalytic Degradation of Polycyclic Aromatic Hydrocarbons, Pentachlorophenol, and Atrazine in Water," National Oceanic and Atmospheric Administration through CICEET, $20,000 (D. D. Dionysiou, PI, G. A. Sorial, Co-PI), Effort 50%, May 1, 2003- Feb 29 2004, Rejected March 2003.

19. "Use of Coupled Electrochemical Process and Ion Exchange Process for Removal of Boron" National Oceanic and Atmospheric Administration through CICEET, $20,000 (G. A. Sorial, PI, D. D. Dionysiou, Co-PI), Effort 50%, May 1, 2003- Feb 29 2004, Rejected March 2003.

20. "Fabrication of Nanoporous Photocatalytic Membranes," Environmental Protection Agency, $389,921, Feb. 2003-Jan 2006 (D. D. Dionysiou, PI, D. B. Oerther, Co-PI), Effort 80%, Rejected Jan. 2003.

21. "Novel Chemical Oxidation Involving Sulfate Radicals for the Destruction of Toxic Substances Resulting from Agricultural Runoff and Industrial Wastewater," The Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET), Submitted Dec. 2001, $ 15,000, Rejected February 2002.

22. "Ozone Enhanced Biofiltration for Geosmin and MIB Removal", Montgomery Watson (for American Water Works Association), Submitted July 2001, $ 180,000, two year period (D. D. Dionysiou, PI, George A. Sorial, D. B. Oerther, Makram T. Suidan, Co-PIs), Effort 30%, Rejected Oct. 2001.

23. "Evaluation of TiO_2-Rotating Disk Photocatalytic Reactor for the Degradation of Dyes and Recalcitrant Organic Compounds in Tertiary-Treated Wastewater and Industrial Water," Water Environment Research Foundation, Submitted Nov. 2000, $74,999, June 2001-May 2002, Rejected April 2001.

POST DOCTORAL ASSOCIATES AND VISITING SCHOLARS

Postdoctoral Associates/Research Associates/Visiting Research Scholars:

1. Dr. Qiujing Yang	March 1, 2006-February 28, 2008. Project Title: "OXONE®-based Heterogeneous and Homogeneous Chemical Oxidation Systems." First Position: Postdoctoral Scholar, The Energy Institute, Pennsylvania State University, University Park, Pennsylvania.
2. Yongjun Chen	December 10, 2007-February 28, 2008. Project Title: "Environmental and Biomedical Applications of Sonogel Carbon Electrode Sensors Modified with Titania and Zirconia Films." Job Placement: Evernu Technology LLC, 1616 Holly Hill Ln # 108, Ambler, Pennsylvania, 19002-3171, United States. March 24, 2010- October 10, 2010 Project Title: "The Carbon Electrodes Modified by Porous Metal Oxide Films and Their Electrochemical Responses to Dopamine" Employment: Associate Professor, Key Laboratories of Ocean Energy Utilization and Energy Conservation of Ministry of Education, Dalian University of Technology, China.
3. Dr. Key Sang Yoo	September 15, 2003-April 15, 2004. Project Title: "Synthesis of Mesoporous Titania Films Using Ionic Liquids as Templates." Job Placement: Assistant Professor Department of Chemical Engineering Seoul National University of Technology Seoul, 139-743, South Korea.
4. Prof. Elias Stathatos	July 26, 2004-Aug. 26, 2004 and July 31, 2007-Aug. 17, 2007 Collaborative Project Title: "Research on the Preparation of Nanostructured TiO_2 Films using Novel Self Assembling Methods for Environmental Applications" Current Position: Associate Professor, Electrical Engineering Department, Technological-Educational Institute of Patras, Greece, Patras, Greece.
5. Mrs. Usha Nambiar	June 2006 – October 2006,

	Trainee Project Title (working with Ph.D. student Maria Antoniou): "Detection of Contaminants of NASA's Interest (HPLC, TOC) and Evaluation of Photocatalytic Reactors" Current Position: P&G, Cincinnati, Ohio.
6. Mr. Christos Kalamaras Ph.D. Student	January 1, 2008-March 31, 2008. Collaborative Project Title: "Synthesis and Characterization of Innovative Catalytic Materials for Water-Gas Shift Reaction." Visiting Scholar from the Department of Chemistry, University of Cyprus.
7. Professor Zhaohong Zhang	November 30, 2008 to May 30, 2009. Collaborative Project Title: "Photocatalytic Degradation of the Pesticide Amitrole using NF-TiO_2 Films under Visible Light." Home Institution: Environment School, Liaoning University, Shenyang, Liaoning Province, China.
8. Mrs. Arş.Gör. Melike YALILI KILIÇ Ph.D. Student	February 1, 2010-October 31, 2010 Collaborative Project Title: "Degradation of Tyrosol Present in Olive Mill Wastewater by UV Radiation in the Presence of Hydrogen Peroxide, Persulfate or Peroxymonosulfate." Visiting Scholar form Uludag University, Bursa, Turkey.
9. Mr. Chun Zhao Ph.D. Student	Sep.16, 2010-March.15, 2012 (Expected) Collaborative Project Title: "Detoxification of Tetracycline Antibiotics in Water by Advanced Oxidation Processes". Visiting Scholar form the Key Laboratory of Yangtze River Water Environment, Ministry of Education, Tongji University, Shanghai, China.
10. Mr. Guanglong Liu Ph.D. Student	Sep. 18, 2010-Sep. 18, 2011 Collaborative Project Title: "Visible Light-activated C-doped TiO_2 Nanoparticles and Films for the Photocatalytic Degradation of Microcystin-LR in Water." Visiting Scholar form Huazhong Agricultural University, Shizishan Street, Wuhan City, Hubei Province, China.

GRADUATE STUDENTS ADVISED

Former Students

Ph.D. Students

1. Arturo A. Burbano — Ph.D., Graduated March 18, 2004
(Professor Makram T. Suidan served as co-advisor)
Dissertation Title: "*Chemical Degradation of Methyl Tert-Butyl Ether (MTBE) by Fenton Reagent*"
Job Placement: Montgomery Watson Harza, Pasadena, California

2. George P. Anipsitakis — Ph.D., Graduated December 11, 2005
Dissertation Title: "*Cobalt/Peroxymonosulfate and Related Oxidizing Reagents for Water Treatment*"
Job Placement: Senior Environmental Scientist
Chastain-Skillman, Inc., Lakeland, Florida
Current Job: Senior Engineer at Brown and Caldwell, Charlotte, North Carolina Area.

3. Hyeok Choi — Ph.D., Graduated June 9, 2007.
Dissertation Title: "*Novel Preparation of Nanostructured Titanium Dioxide Photocatalytic Particles, Films, Membranes, and Devices for Environmental Applications*"
Job Placement: Oak Ridge Institute of Science and Education (ORISE) Research Fellow: August 1, 2007 Land Remediation and Pollution Control Division (LRPCD), National Risk Management Research Laboratory (NRMRL), US Environmental Protection Agency, Cincinnati, Ohio.
Current Job: Assistant Professor, University of Texas at Arlington.

4. Yongjun Chen — Ph.D., Graduated December 8, 2007
Dissertation Title: "*The Role of Preparation Conditions in Sol-Gel Methods on the Synthesis of Nanostructured Photocatalytic Films for Water Treatment*"
Job Placement: Evernu Technology LLC, 1616 Holly Hill Ln # 108, Ambler, Pennsylvania, 19002-3171, United States. Current Employment: Associate Professor, Key Laboratories of Ocean Energy Utilization and Energy Conservation of Ministry of Education, Dalian University of Technology, Dalian 116024, Liaoning Province, P. R. China.

5. Shirish Agarwal — Ph.D., Graduated March, 2009
Dissertation Title: "*Palladium/Magnesium Bimetallic Systems for Dechlorination of Polychlorinated Biphenyls*"
Job Placement: Engineer, CH2MHill, Cincinnati, Ohio.

6. Maria Antoniou — Ph.D., Graduated March, 2010
Dissertation Title: "*Mechanistic Studies on the Degradation of Cyanobacterial Toxins and Other Nitrogen -containing Organic Contaminants with Hydroxyl Radical and Sulfate Radical -based Advanced Oxidation Technologies*"

Job Placement: Post doctoral position, Denmark Technical University.

Master's Students (with Thesis)

7. Evangelia Bekou — M.S, Graduated March 18, 2003.
Thesis Title: "*Extraction of Organic Contaminants Using Room Temperature Water-Immiscible Ionic Liquids"*
Job Placement: Montgomery Watson, Soft, Pasadena, California.

8. Qianrui Wang — M.S., Graduated December 2003
Thesis Title: "*Mercury Pollution in Natural Waters"*
Job Placement: ENSR (Guangzhou) Environmental Technology Consulting Co., Ltd, Guangzhou, China.

9. Qiaolin Yang — M.S., Graduated March 18, 2004.
Thesis Title: "*Photolytic Degradation of Environmentally Important Organic Contaminants in Novel Room Temperature Ionic Liquids"*
Job Placement: SBR Technologies, Inc., Cincinnati, Ohio.

10. Rachel Copeland — M.S., Graduated December 11, 2005.
Thesis Title: "*Dissolved Arsenic release from Drinking Water Distribution System Solids"*
Job Placement: Black and Veatch, Tampa, Florida.

11. Bhargavi Subramanian — M.S., Graduated June 9, 2007.
Thesis Title: "*Exploring Neoteric Solvent Extractants: Applications in the Removal of Sorbates from Solid Surfaces and Regeneration of Automotive Catalytic Converters*"
Job Placement: Black and Veatch, Cincinnati, Ohio.

12. Aditya Rastogi — M.S., Graduated March 22, 2008.
Thesis Title: "*Sulfate Radical-Based Environmental Friendly Chemical Oxidation Processes for Destruction of 2-Chlorobiphenyl (PCB) and Chlorophenols (CPs)*"
Job Placement: AT&T, Florham Park, New Jersey.

13. Verna Arnette — M.S., Graduated December, 2009.
Thesis Title: "*Cyanotoxin Removal in Drinking Water Treatment Processes*"
Job Placement: Greater Cincinnati Water Works, Cincinnati, Ohio

Master's Students (non-Thesis)

14. Hengye Jing — M.S., Graduated June, 2010.

Capstone Project Title: "*Overview of Laboratory Scale Monitoring and Rapid Detection of Cyanotoxins in Water*"
Job Placement: Continuing for Ph.D.

Current Graduate Students

Ph.D. Students

15. Debbie Metz — March 2004-pres. (Proposal Defense: Passed July 2011)
16. Miguel Pelaez — Sep. 2006-pres. (Proposal Defense: Passed March 2011)
17. Xuexiang He — Sep. 2007-pres. (Qualifying Exam: Passed March 2010)
18. Changseok Han — Sep. 2008-pres. (Qualifying Exam: Passed March 2010)
19. Geshan Zhang — Sep. 2009-pres. (Qualifying Exam: Passed March 2011)
20. Xiaodi Duan — Sep. 2010-pres.

Master's Students

21. Lijuan Sang — Sep. 2010-pres.
22. Alissa O'Donnell — Sep. 2011-pres.

UNTERGRADUATE STUDENTS ADVISED (IN RESEARCH)

1. Shannon J. Campell — Design Project, 2000
2. Joseph Stallard (CEE) — Jan. 2001 – June 2001
3. Brian Yates (CEE) — Sep. 1. 2003-August 10, 2005.
4. Daniel Breetz (CEE) — Sep. 1, 2004-December 31, 2007.
5. Elizabeth Myre — Sep. 1, 2004-May 31, 2005.
6. Robert Herrick (CEE) — June 15, 2005-Sep. 15, 2005.
7. Anna Sofranko (ChE) — Summer 2005
   (as an REU student from the University of Virginia)
8. Amber Yeary (Chemistry) — June 2006-Spring 2008
   (as an NSF REU student from Write State University)
9. Olga Kavvada (Civil Engineering) — July-August 2006
   (International student from the National Technical University of Athens, Greece)
10. James Newton (Chemical Engineering) — Sep. 2007-Spring 2008
11. Matt Bosch (BioMed) — Summer 2008
    (as an REU student from the University of Texas at Austin)
12. Kimberley Curell (Chemistry) — June-August, 2009
    (as an REU student from Lake Superior State University, Michigan)
13. Joel M. Anderson (Chemistry) — June-August, 2009
    (as an REU student from St. John's University, Minnesota)
14. Lisa Guay (Chemistry) — June-August, 2010
    (as an REU student from University of Arizona)
15. Trevor Lynch (Chemistry) — January 2010-present
    (as an REU student from St. John's University, Minnesota)

16. Robin J. Holland (Science and Materials Engineering) June 2011-present

HIGH SCHOOL STUDENTS ADVISED (IN RESEARCH)

1.	Charles Clay (Mount Healthy/11th)	Summer 2000
2.	Alison Long	Summer 2002
3.	Alex J. Semertzides (Indian Hill/12th)	Summer 2002
4.	Lauren Ford (Mt. Heathy/11th)	Summer 2003
5.	Carol Kao (Sycamore/11th)	Summer 2004
6.	Summer Training on Environmental Nanotechnology for 24 High School Students	Summer 2010
7.	Summer Training on Environmental Nanotechnology for 16 High School Students	Summer 2011

STUDENT COMMITTEE SERVICE OR EXAMINER
(Including my Former and Current Group Students)

Current Committee Member

Ph.D. Students

- Debbie Metz
- Miguel Pelaez
- Kodali Phanichand (Chemistry)
- Amina Darwish (ChE)
- Xuexiang He
- Changseok Han
- Geshan Zhang
- Xiaodi Duan
- Linxi Chen

M.S. Students

- Lijuan Sang
- Shirley Ferreira Rosenzweig
- Bryant McDonnell

Previous Service on Ph.D. Dissertation and M.S. Thesis Committees

Ph.D. Dissertations - Proposal Defense

• John Barton	April 24, 2002
• Shuang Qi	May 22, 2002
• Arturo Burbano	May 29, 2002
• George Anipsitakis	October 30, 2002
• Ziwei Li	April 15, 2003
• Jesus A. Cacho-Rivero	June 10, 2003
• Marie Sedran	October 10, 2002
• Balazi Ramakrishna	September 2, 2003
• Maher Zein	September 23, 2003
• Daekeun Kim	Sep. 16, 2004
• Jeff Szabo	Dec. 8, 2004
• Hyeok Choi	March 11, 2005
• Li Yuan (Chemical Engineering)	May 17, 2006
• Yongjun Chen	December 18, 2006
• Lei Ji (Chemical Engineering)	November 2, 2007
• Maria Antoniou	December 14, 2007
• Ali Asgar S. Bhagat (ECE)	February 12, 2008
• Shirish Agarwal	February 28, 2008

- Rangesh Srinivasan — March 11, 2008
- Amina Darwish (ChE) — April 6, 2009
- Amro El Badawy — March 16, 2010
- Miguel Pelaez — March 22, 2011
- Debbie H. Metz — July 14, 2011
- Linxi Chen — July 15, 2011

M.S. Theses-Proposal Defense

- Jeff R. Macomber — November 17, 2000
- Ragesh B. Doppalapudi — November 17, 2000
- Dinish Kumar Palaniswamy — January, 2002
- Marie Sedran — June 22, 2002
- Evangelia Bekou — February, 2002
- Gayatri Nadimpalli — November 25, 2002
- Qianrui Wang — November 27, 2002
- Qiaolin Yang — February 5, 2003
- Yi Zhou — June 9, 2003
- Maria Vamvakidou (DAAP) — November 25, 2003
- Yuanhang Meng — August 16, 2004
- Rachel Copeland — March 7, 2005
- Zachary Duvall — December 5, 2005
- Bhargavi Subramanian — May 24, 2006
- Anthony Jasper — January 23, 2008
- Dan Li (Biomedical Engineering) — April 8, 2011
- Shirley Ferreira Rosenzweig — May 18, 2011
- Bryant McDonnell — October 19, 2011
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Ph.D. Dissertations – Final Defense

- Shuang Qi — February 19, 2003 — Ph.D. 2003
- Arturo Burbano — October 3, 2003 — Ph.D. 2004
- Marie Sedran — December 10, 2003 — Ph.D. 2004
- John Barton — August 6, 2004 — Ph.D. 2004
- Balaji Ramakrishna — November 23, 2004 — Ph.D. 2004
- Jesus A. Cacho-Rivero — May 3, 2005 — Ph.D. 2005
- George P. Anipsitakis — June 15, 2005 — Ph.D. 2005
- Maher Zein — September 26, 2005 — Ph.D. 2005
- Ziwei Li — April 27, 2006 — Ph.D. 2006
- Jeff Szabo — August 3, 2006 — Ph.D. 2006
- Hyeok Choi — November 14, 2006 — Ph.D. 2007
- Parveen Kumar (ChE) — April 20, 2007 — Ph.D. 2007
- Yongjun Chen — May 25, 2007 — Ph.D. 2007
- Li Yuan (Chemical Engineering) — December 10, 2007 — Ph.D. 2008

- Lei Ji (Chemical Engineering) April 14, 2008 Ph.D. 2008
- Mary Ann Curran June 26, 2008 Ph.D. 2008
  (Erasmus University, Rotterdam, The Netherlands)
- Ali Asgar S. Bhagat (ECE) February 10, 2009 Ph.D. 2009
- Shirish Agarwal February 25, 2009 Ph.D. 2009
- Rangesh Srinivasan May 14, 2009 Ph.D. 2009
- Maria Antoniou December 10, 2009 Ph.D. 2009
- Amro El Badawy July 20, 2011 Ph.D. 2011
-

Ph.D. Final Dissertations –Examiner/External Reviewer

- Quan Sun, May 9, 2009 Ph.D. 2009
  (School of Civil and Environmental Engineering,
  The University of New South Wales, Australia)

- Hosik Park, November 16, 2009 Ph.D. 2009
  (Department of Environmental Science and Engineering,
  Gwangju Institute of Science and technology, GIST, South Korea)

- Evrim Celik, November 18, 2010 Ph.D. 2010
  (Department of Environmental Science and Engineering,
  Gwangju Institute of Science and technology, GIST, South Korea)

- Lars Rønn Bennedsen, June 15, 2011 Ph.D. 2011
  (Department of Chemistry, Biotechnology and
  Environmental Engineering, Section of Chemical Engineering,
  Aalborg University, Esbjerg Campus, Denmark)

M.S. Theses- Final Defense

- Ragesh Bagchi December 22, 2000 M.S. 2001
- Jeff R. Macomber January 10, 2001 M.S. 2001
- Ragesh B. Doppalapudi October 2, 2001 M.S. 2001
- Ganesh Balasubramanian December 11, 2001 M.S. 2002
- Marie Sedran June 22, 2002 M.S. 2002
- Dinish Kumar Palaniswamy July 5, 2002 M.S. 2002
- Evangelia Bekou August 30, 2002 M.S. 2003
- Gayatri Nadimpalli July 21, 2003 M.S. 2003
- Qianrui Wang October 21, 2003 M.S. 2003
- Yi Zhou November 4, 2003 M.S. 2003
- Qiaolin Yang February 13, 2004 M.S. 2004
- Maria Vamvakidou (DAAP) May 13, 2004 M.S. 2004
- Rachel Copeland November 14, 2005 M.S. 2005
- Zachary Duvall (DAAP) May 11, 2006 M.S. 2006

• Ian Laseke	December 19, 2006	M.S. 2007
• Bhargavi Subramanian	March 8, 2007	M.S. 2007
• Aditya Rastogi	February 26, 2008	M.S. 2008
• Sundeep Kumar Kasimsetty (MINE)	March 6, 2008	M.S. 2008
• Anthony Jasper	August 12, 2008	M.S. 2008
• Verna Arnette	August 24, 2009	M.S. 2009
• Srinivas Motamarri	October 27, 2010	M.S. 2010
• Dan Li (Biomedical Engineering)	April 8, 2011	M.S. 2011
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SUMMARY OF COURSES TAUGHT AND DEVELOPED

Number	Title	Hours	Quarter/ Year	Size	Rating *	College Average
CEE 654	Physical Chemical Processes for Water Quality Control	4.0	Spring 11	19	**4.90/4.90**	3.9/4.0
CEE 471	Environmental Engineering I	3.0	Fall 10	53	**4.50/4.60**	3.70/3.90
CEE 654	Physical Chemical Processes for Water Quality Control	4.0	Spring 10	15	**4.60/4.80**	3.90/4.00
CEE 676	Advanced Seminar Series	1.0	Spring 10	19	**4.70/4.80**	3.90/4.00
CEE 654	Physical Chemical Processes for Water Quality Control	4.0	Spring 09	9	**4.50/4.70**	3.90/4.00
CEE 659	Unit Operations Laboratory and Process Monitoring	4.0	Spring 09	10	**4.20/4.50**	3.90/4.00
CEE 471	Environmental Engineering I	3.0	Fall 08	23	**3.80/4.30**	3.80/3.90
CEE 654	Physical Chemical Processes for Water Quality Control	4.0	Spring 08	15	**4.40/4.60**	3.80/3.90
CEE 659	Unit Operations Laboratory and Process Monitoring	4.0	Spring 08	13	**4.20/4.50**	3.80/3.90
CEE 471	Environmental Engineering I	3.0	Fall 07	38	**4.26**	na
CEE 724	Advanced Unit Operations for Water and Wastewater Treatment	3.0	Fall 07	8	**4.47**	na
CEE 654	Physical Chemical Processes for Water Quality Control	4.0	Spring 07	22	**4.27/4.40**	na
CEE 659	Unit Operations Laboratory and Process Monitoring	4.0	Spring 07	11	**3.80/3.80**	na
CEE 471	Environmental Engineering I	3.0	Fall 06	27	**4.09/4.48**	na
CEE 471	Environmental Engineering I	3.0	Summer 06	20	**4.36/4.86**	na
CEE 654	Physical Chemical Processes for Water Quality Control	4.0	Spring 06	14	**4.86/4.86**	na
CEE 724	Advanced Unit Operations for Water and Wastewater Treatment	3.0	Fall 05	7	**4.5/5.0**	na
CEE 659	Unit Operations Laboratory and Process Monitoring	4.0	Spring 05	12	**4.50/4.71**	na
CEE 654	Physical Chemical Processes for Water Quality Control	4.0	Spring 05	28	**4.75/4.77**	na

CEE 471	Environmental Engineering I	3.0	Fall 04	27	**4.56/4.75**	na
CEE 724	Advanced Unit Operations for Water and Wastewater Treatment	3.0	Fall 04	7	**3.83/4.00**	na
CEE 471	Environmental Engineering I	3.0	Summer 04	14	**4.25/4.87**	na/3.81
CEE 659	Unit Operations Laboratory and Process Monitoring	4.0	Spring 04	14	**4.67/4.83**	na
CEE 654	Physical Chemical Processes for Water Quality Control	4.0	Winter 04	8	**4.60/4.71**	na
CEE 724	Advanced Unit Operations for Water and Wastewater Treatment	3.0	Fall 03	8	**4.14/4.43**	3.96
CEE 659	Unit Operations Laboratory and Process Monitoring	3.0	Spring 03	8	**4.71/4.86**	3.97
CEE 904	Advanced Oxidation Technologies	3.0	Winter 03	7	**na**	3.99
CEE 654	Physical Chemical Processes for Water Quality Control	4.0	Winter 03	11	**4.63/4.75**	na
CEE 471	Environmental Engineering I	3.0	Fall 02	26	**4.74/5.00**	na
CEE 659	Unit Operations Laboratory and Process Monitoring	3.0	Spring 02	9	**4.82/4.98**	3.88/4.22
CEE 654	Physical Chemical Processes for Water Quality Control	4.0	Winter 02	23	**4.57/4.73**	3.95/4.32
CEE 724	Advanced Unit Operations for Water and Wastewater Treatment	3.0	Fall 01	4	**4.54/4.79**	3.87/4.28
CEE 659	Unit Operations Laboratory and Process Monitoring	3.0	Spring 01	9	**4.47/4.67**	4.04/4.35
CEE 654	Physical Chemical Processes for Water Quality Control	4.0	Winter 01	11	**4.20/4.57**	3.98/4.40
CEE 724	Advanced Unit Operations for Water and Wastewater Treatment	3.0	Fall 00	14	**4.60/4.84**	4.14/4.53

- Instruction/Organization or Overall Course/Overall Professor; Maximum=5.0/5.0
- After Fall 2007, overall of five criteria (i) planning/organization, (ii) approachability, (iii) fairness of problems and exams, (iv) overall course, (v) overall professor.

ACADEMIC COMMITTEE SERVICE

University Committees

- Research Grant Committee, since April 2007.
- University Research Council, Member of the Physical Science and Engineering Subcommittee, September 1 2003-August 30 2005.

College Committees

- College of Engineering, Reappointment, Promotion, & Tenure (RPT) Committee, Member since Summer 2010.
- College of Engineering Research Co-op Committee, Member since Spring 2007.
- Department of Civil and Environmental Engineering-Representative of the CEE Curriculum Committee in the College of Engineering Curriculum Committee, January 1 2006-June 30, 2006.
- Department of Civil and Environmental Engineering-Representative of the CEE Undergraduate Awards & Scholarships in the College of Engineering Committee, member since April 2007.

School/Departmental Committees

- Director of Graduate Students, Division of Environmental Engineering and Science, since June 2006.
- Curriculum Committee, Department of Civil and Environmental Engineering, Member since Sep. 1. 2005.
- Division of Environmental Engineering and Science, Graduate Admissions Committee – Member since September 2000 and Chair during Sep. 1, 2002-Aug. 31, 2004 and Sep. 1 2005-Aug. 31 2006.
- Examination Committee of the Annual Ph.D. Qualifying Exams, EES Division, Examiner in 2000, 2001, 2002 and Chair since June 2006.
- CEE ACCEND Committee (BS Civil/MS Environmental), Member since Sep. 1 2005.
- CEE Department, Reappointment, Promotion, & Tenure (RPT) Committee, Member since Summer 2006-2010.
- CEE Department, Undergraduate Awards & Scholarship Committee, Member since Summer 2006.
- Department of Civil and Environmental Engineering-Representative of the CEE Curriculum Committee in the College of Engineering Curriculum Committee, January 1 2006-June 2006.
- Division of Environmental Engineering and Science, Member of the Outreach Committee, Sep. 1 2004-present.
- Search committee for hiring a new faculty member in the areas of *Hydrology and Particle Transport* (2006)
- Search committee for hiring two new faculty member in the areas of *Construction* and *Transportation* (2004)

- Search committee for hiring a new faculty member in the area of *Air Quality/Air Pollution Control* (2001)

UNIVERSITY AND COLLEGE / COMMUNITY SERVICE

- Served as Judge for the Poster Competition for: (1) NSF REU Site Program Trainees in Membrane Applied Science and Technology and (2) ASPET SURF Program Dalton/Zannoni Fellows: Pharmacology, Toxicology and Pharmaceutical Sciences, August 16, 2007.
- Served as judge for the Annual Poster Competition of the Graduate Students, Annual Graduate Recruitment Weekend, Spring 2000-present.
- Assisted The Bridge to the Future Alumni Reception and Provided Poster Displays, since my appointment (every October).
- Assisted with College Visitation Days, since my appointment in Fall 2000.
- Assisted in the Efforts for Undergraduate Enrolment, Jan. 2002-present.
- Organized special workshops and instrumentation training sessions on *Atomic Absorption Spectroscopy* and *GC/MS* for enhancing research skills of the graduate students at the Department of Civil and Environmental Engineering, University of Cincinnati

PROFESSIONAL AFFILIATIONS

1. American Association for the Advancement of Science (AAAS)
   Member 1999-2003

2. American Chemical Society (ACS)
   Member since 1998
   Member of the Division of Industrial and Engineering Chemistry (since 1998)
   Member of the Division of Colloid and Surface Chemistry (since 2000)
   Member of the Division of Physical Chemistry (since 2000)
   Member of the Division of Environmental Chemistry (since 2000)
   Member of the Division of Inorganic Chemistry (since 2003)
   Member of the Division of Nuclear Chemistry (2000-2003)

3. American Institute of Chemical Engineers (AIChE)
   Member 1993-2007

4. American Nano Society
   Member since May 15, 2011

5. American Society of Engineering Education (ASEE)
   Member 2001-2004

6. American Water Works Association (AWWA)
   Member of both the National Association and the Ohio Chapter
   Member since 2000

7. Association of Environmental Engineering and Science Professors (AEESP)
   Member since 2000

8. Federal Water Quality Association (FWQA)
   Member since 2002

9. International Ultraviolet Association (IUVA)
   Member since 1999

10. International Water Association (IWA)
    Member since 2002

11. Materials Research Society
    Member since 2005

12. North American Catalyst Society and Tri-State Catalysis Society
    Member since 2001

13. Sigma Xi, The Scientific Research Society
    Member since 2001

14. Water Environment Federation (WEF)
    Member of the National Association and the Ohio Chapter
    Member since 1996

PROFESSIONAL SERVICE

Editorial Activity (International/National)

- *Editor*, Chemical Engineering Journal (Elsevier), (since Nov. 1, 2009)
- *Editor*, Journal of AOTs (Advanced Oxidation Technologies), (since January 1, 2008).
- *Special Issue Editor and Associate Editor*, Journal of Environmental Engineering, American Society of Civil Engineers (ASCE) (since June 1, 2002).
- *Associate Editor*, Water Environment Research, Water Environment Federation (WEF) (since September 20, 2006).
- *Member of Editorial Board*, Applied Catalysis B: Environmental (Elsevier) (since Sep. 1, 2004).
- *Member of Editorial Board*, Journal of Hazardous Materials (Elsevier) (since May 15, 2010).
- *Member of Editorial Board*, Advanced Science Letters (since June 1, 2007).
- *Member of Editorial Board*, International Journal of Photoenergy (Hindawi) (since January 13, 2009).
- *Member of Editorial Board*, Catalysts (MDPI, Basel, Switzerland) (since May 1, 2011).
- *Member of Editorial Board*, Membranes (MDPI, Basel, Switzerland) (since June 22, 2010).
- *Member of Editorial Board*, Journal of Advanced Oxidation Technologies (Jan. 1-Dec. 31, 2007).
- *Member of Editorial Board*, Environmental Progress (now renamed as Environmental Progress and Sustainable Energy) (AIChE) (Dec. 14, 2003-Feb. 2009).
- *Guest Co-Editor*, Chemical Engineering Journal, Special Issue on Environmental Nanotechnology, volume 170, Issues 2-3 (2011), pages 345-568 (Guest Editors: Bingcai Pan, Dionysios D. Dionysiou, and X.S. Zhao).
- *Guest Co-Editor*, Journal of Environmental Quality (published by the American Society of Agronomy), Partial Special Issue on Environmental Occurrences, Behavior, Fate, and Ecological Effects of Nanomaterials, vol. 39, issue 10, November 2010, pages 1867-1965 (Guest Editors: Gregory V. Lowry, Emily Bernhardt, Dionysios D. Dionysiou, Mark R. Wiesner, and Baoshan Xing).
- *Guest Editor*, Journal TOXICON, Special Issue on Harmful Algal Blooms and natural Toxins in Fresh and marine Waters: Exposure, Occurrence, Detection, Toxicity, Control,

Management, and Policy, vol. 55, Issue 5, 2010 (Guest Editors: Dionysios D. Dionysiou, Armah de la Cruz, Judy Westrick).

- *Guest Editor*, Journal of AOTs (Advanced Oxidation Technologies), August 2008 (Guest Editors: Dionysios. D. Dionysiou, Sixto Malato, Panagiotis Lianos, Gianluca Li Puma, Heechul Choi).

- *Guest Editor*, Journal of AOTs (Advanced Oxidation Technologies), July 2008 (Guest Editors: Dionysios. D. Dionysiou, Sixto Malato, Panagiotis Lianos, Gianluca Li Puma, Heechul Choi).

- *Guest Editor*, Journal of AOTs (Advanced Oxidation Technologies), January 2008 (Guest Editors: Dionysios. D. Dionysiou, Panagiotis Lianos, Gianluca Li Puma).

- *Guest Editor*, Water Environment Research, partial special issue 2 on Groundwater, January 2007.

- *Guest Editor*, Environmental Engineering Science, special issue on Environmental Nanotechnology, vol. 24, Number 1, January 2007 (Guest Editors: Dionysios. D. Dionysiou and Mark Wiesner).

- *Guest Editor*, Journal of AOTs (Advanced Oxidation Technologies), January 2007 (Guest Editors: Nick Serpone and Dionysios. D. Dionysiou).

- *Guest Editor*, Water Environment Research, partial special issue 1 on Groundwater, December 2006.

- *Guest Editor*, Journal of Environmental Engineering, Vol. 128, Issue 9, September 2002, MTBE and Gasoline Oxygenates: *Ex Situ* and *In Situ* Treatment (Guest Editors: Makram T. Suidan, Dionysios. D. Dionysiou and George A. Sorial).

Committee Service (International/National)

- American Chemical Society (ACS), Division of Environmental Chemistry, Program Chair since January 2008 and responsible for the Fall 2008 Annual Meeting and forward.
- American Chemical Society (ACS), Division of Environmental Chemistry, Certificate of Merit Awards Committee, Co-Chair January 2007-September 2008.
- American Chemical Society (ACS), Division of Environmental Chemistry Undergraduate Awards Committee, Chair since January 2007.
- American Chemical Society (ACS), Green Chemistry Institute, Hancock Award Committee, since August 2007.
- American Water Works Association (AWWA), Organic Contaminants Control Committee, Member since June 2004.
- American Water Works Association (AWWA), Ph.D. Dissertation and M.S. Thesis Awards Committee, Two term member: Fall 2008-2011; 2011-2014.

- Association of Environmental Engineering and Science Professors (AEESP), MS Thesis Awards Committee, Chair in 2007 and Member January 2005-December 2007.
- Association of Environmental Engineering and Science Professors (AEESP), Education Committee, Member January 2003-Summer 2008.
- Association of Environmental Engineering and Science Professors (AEESP), Distinguished Lecturer Committee, Member since Fall 2008.
- Association of Environmental Engineering and Science Professors (AEESP)-American Chemical Society- Liaison Coordinator, since October 2008.
- Cincinnati Water Works: Water Quality Advisory Committee, Member since 2001.
- International Organizing Committee of the Annual International Conferences on Advanced Oxidation Technologies, Member since 2003 and Chair in 2006-2008.
- International Organizing Committee of the Annual International Conferences on TiO_2 Photocatalysis, Member since 2001.
- International Organizing Committee, The European Meetings on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA), Member since 2007.
- National Research Council of Canada, Evaluator for Applications Submitted for the Steacie Prize.
- Water Environment Federation (WEF), Groundwater Committee,
  Co-Chair since October 2006 and Member since October 2003.
- Water Environment Federation (WEF), McKee Medal Awards Committee,
  Member since May 2007 (served for the 2007 and 2008 competitions).
- Young Professionals Committees of Ohio American Water Works Association (OAWWA) and Ohio Water Environment Association (OWEA)
  Member since 2001.

Reviewer

Peer-Reviewed Journals (International)

- *ACS Symposium Series* (American Chemical Society)
- *ACS Applied Materials & Interfaces* (American Chemical Society)
- *ACS Catalysis* (American Chemical Society)
- *Advanced Functional Materials* (Wiley)
- *Advanced Materials* (Wiley)
- *Advances in Space Research* (Elsevier)
- *AIChE Journal (*American Institute of Chemical Eng., AIChE)
- *Angewandte Chemie International Edition* (Wiley)
- *Applied Catalysis A: General* (Elsevier)
- *Applied Catalysis B: Environmental* (Elsevier)
- *Applied Physics A* (Springer-Verlag, Berlin/Heidelberg)
- *Applied Surface Science (Elsevier)*
- *Biomacromolecules* (American Chemical Society)
- *Bioinorganic Chemistry and Applications* (Hindawi)
- *Biotechnology and Bioengineering* (John Wiley & Sons)
- *Catalysis Letters* (Springer)
- *Catalysis Science & Technology* (Royal Society of Chemistry)
- *Catalysis Today* (Elsevier)
- *Chemical Communications* (Royal Society of Chemistry)
- *Chemical Engineering Journal* (Elsevier)
- *Chemistry: A European Journal* (Wiley)
- *Chemistry of Materials* (American Chemical Society)
- *Chemosphere* (Elsevier)
- *Colloids and Surfaces A: Physicochemical and Engineering Aspects* (Elsevier)
- *Crystal Growth and Design* (American Chemical Society)
- *Energy & Environmental Science* (Royal Society and Chemistry)
- *Environmental Chemistry* (Csiro Publishers)
- *Environmental Engineering Science* (Mary Ann Liebert, Inc. Publishers)
- *Environmental Health Perspectives*
- *Environmental Progress* (American Institute of Chemical Eng., AIChE)
- *Environmental Science and Pollution Research* (Springer)
- *Environmental Science and Technology* (American Ceramic Society)
- *Fuel Processing and Technology* (Elsevier)
- *Industrial and Eng. Chemistry Research* (American Ceramic Society)
- *Inorganic Chemistry* (American Ceramic Society)
- *International Journal of Chemical Kinetics* (John Wiley & Sons)
- *International Journal of Chemical reactor Engineering* (The Berkeley Electronic Press)
- *International Journal of Environmental Analytical Chemistry* (Taylor & Francis)
- *International Journal of Environmental Technology and Management (IJETM)*(Interscience)
- *Journal of Advanced Oxidation Technologies* (Science & Technology Network, Inc.)
- *Journal of the Air & Waste Management Association* (Air & Waste Management Association)
- *Journal of the American Ceramic Society* (American Ceramic Society)

- *Journal of the American Chemical Society* (American Chemical Society)
- *Journal of Chemical Technology and Biotechnology* (John Wiley & Sons)
- *Journal of Colloid and Interface Science* (Elsevier)
- *Journal of Contaminant Hydrology* (Elsevier)
- *Journal of the Chinese Institute of Chemical Engineers*
- *Journal of Environmental Engineering* (American Society of Civil Engineers, ASCE)
- *Journal of Environmental Engineering* and Science (National Research Council Canada)
- *Journal of Environmental Quality* (American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America)
- *Journal of the European Ceramic Society* (Elsevier)
- *Journal of Fluorine Chemistry* (Elsevier)
- *Journal of Hazardous Materials* (Elsevier)
- *Journal of Materials Chemistry* (Royal Society of Chemistry)
- *Journal of Materials Science* (Springer)
- *Journal of Molecular Catalysis A* (Elsevier)
- *Journal of Nanomaterials* (Hindawi Publishing Corporation)
- *Journal of Nanoparticle Research* (Kluwer)
- *Journal of Nanoscience and Nanotechnology* (American Scientific Publishers)
- *Journal of Photochemistry and Photobiology A: Chemistry* (Elsevier)
- *Journal of Physical Chemistry B* (American Chemical Society)
- *Journal of Solar Energy Engineering* (American Society of Mechanical Engineers, ASME)
- *Journal of Water and Health (IWA)*
- *Journal of Water Resources Planning and Management* (ASCE)
- *Journal of Water Supply: Research and Technology-AQUA*
- *Langmuir* (American Chemical Society)
- *Materials Chemistry and Physics* (Elsevier)
- *Materials Research Bulletin* (Elsevier)
- *Materials Science and Engineering B* (Elsevier)
- *Microporous and Mesoporous Materials* (Elsevier)
- *New Journal of Chemistry* (Royal Society of Chemistry)
- *Photochemical and Photobiological Sciences* (Royal Society of Chemistry)
- *Powder Technology* (Elsevier)
- *Radiation Physics and Chemistry* (Elsevier)
- *Science of the Total Environment* (Elsevier)
- *Separation and Purification Technology* (Elsevier)
- *Small (Wiley, VCH)*
- *Soft Matter* (Royal Society of Chemistry)
- *Solar Energy* (Elsevier)
- *Spectroscopy Letters* (Taylor & Francis)
- *Surface and Coatings Technology* (Elsevier)
- *The Arabian Journal for Science and Eng.* (King Fahd Univ. of Petroleum and Minerals)
- *Thermochimica Acta* (Elsevier)
- *Thin Solid Films* (Elsevier)
- *Topics in Catalysis* (Springer Science)
- *Water, Air & Soil Pollution* (Springer Science)
- *Water Environment Research* (Water Environment Federation, WEF)

- *Water Research* (International Water Association, IWA)
- *Water Science and Technology* (International Water Association, IWA)
- *Water Science and Technol.- Water Supply* (International Water Association, IWA)

Funding Agencies-Proposals

- American Chemical Society (ACS)
- American Water Works Association Research Foundation (AWWARF)
- Czech Republic Science Foundation
- Connecticut Institute of Water Resources, University of Connecticut
- Department of Agriculture (DOA)
- Environmental Protection Agency (Nanotechnology, Drinking Water, STAR, SBIR, EPA STAR Fellowships)
- Estonia Science Foundation
- Estonia-U.S. Bilateral Grants Program, U.S. Civilian Research & Development Foundation
- ETH Zurich Research Commission for Scientific Evaluation
- Georgian-U.S. Bilateral Grants Program, U.S. Civilian Research & Development Foundation
- Greek Ministry for Education (Thalis and Archimedes programs)
- Israel Science Foundation
- Louisiana Board of Regents
- National Aeronautics and Space Administration (NASA)
- National Institute of Health/National Institute of Environmental Health Sciences (NIH/NIEHS)
- National Science Foundation (USA) (several divisions and programs)
- Ohio Water Resources Institute
- Swiss Confederation, Federal Department of Home Affairs FDHA, State Secretariat for Education and Research SER
- United Kingdom: the Natural Environment Research Council; the Engineering and Physical Sciences Research Council; the Department of Environment, Food and Rural Affairs; and the Environment Agency of England and Wales.
- US-Egypt Collaborative Proposals
- University of Wisconsin Water Resources Institute (WRI)
- University of Wisconsin-Milwaukee Research Foundation
- Water Reuse Foundation

ORGANIZER, CHAIR OR MEMBER OF ORGANIZING COMMITTEES & SESSIONS ORGANIZED OR CHAIRED

- Member of the International Organizing Committee, The 6th International Conference on TiO_2 Photocatalytic Purification and Treatment of Water and Air, June 26-29, 2001, Niagara Falls, Ontario, Canada.

- Symposium Organizer (co-Organizer: Makram T. Suidan), Remediation of Water and Soil Contaminated with Gasoline Oxygenates: *In situ* and *Ex situ* Treatment Technologies, American Chemical Society, Chicago, Illinois, August 26-30, 2001.

- Member of the International Organizing Committee, The 7th International Conference on TiO_2 Photocatalytic Purification and Treatment of Water and Air, November 17-21, 2002, Toronto, Ontario, Canada.

- Member of the International Organizing Committee, The 8th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications, October 25-30, 2003, Montreal, Canada.

- Member of the International Organizing Committee, The 9th International Conference on Advanced Oxidation Technologies for Water and Air Remediation, October 25-30, 2003, Montreal, Canada.

- Chairman of the Symposium Session, Oxidation by Oxone and Sodium Chlorite, Advanced Oxidation Technologies for Water and Air Remediation, October 25-30, 2003, Montreal, Canada.

- Member of the International Organizing Committee, The 9th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications, October 24-28, 2004, San Diego, California.

- Chair of the session "Water Treatment with Photo-Fenton Processes, The 10th International Conference on Advanced Oxidation Technologies for Water and Air Remediation, October 24-28, 2004, San Diego, California.

- Symposium Organizer (co-Organizers: Linda K. Weavers and Wonyong Choi), Oxidation and Reduction Technologies for Water Treatment, AEESP-ACS Symposium (Division of Environmental Chemistry), 228th ACS National Meeting, August 22-26, 2004, Philadelphia, Pennsylvania.

- Co-chair of the session on Environmental-Photocatalysis (chair Panagiotis Smirniotis, co-chair Edgar Moctezuma), 19th North American Catalysis Society Meeting (NAM), May 22-27, 2005, Philadelphia, Pennsylvania.

- Symposium Organizer (co-organizers: Pratim Biswas, Gregory V. Lowry, and Mark Wiesner), Environmental Nanotechnology, AEESP-ACS Symposium (Division of

Environmental Chemistry), 330th ACS National Meeting, August 28-September 1, 2005, Washington DC.

- Chair of the session *Nanocatalysis and Biocatalysis of the* AEESP-ACS Symposium on Environmental Nanotechnology (Division of Environmental Chemistry), 330th ACS National Meeting, August 28-September 1, 2005, Washington DC.

- Member of the International Organizing Committee, The 10th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications, October 23-27, 2005, Chicago, Illinois.

- Member of the International Organizing Committee, The 11th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil, October 23-27, 2005, Chicago, Illinois.

- Chair of the Session *TiO_2 Photocatalysis: Fundamental and Mechanistic Studies-II*, The 10th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications, October 23-27, 2005, Chicago, Illinois.

- Chair of the session *Nanomaterials for Treatment and Remediation*, Session S6, Materials Research Society (MRS) Fall Meeting, November 28-December 2, 2005, Boston, Massachusetts.

- Member of the Panel Discussion on *Ethical and Legal Aspects of Nanomaterials and the Environmental Regulation*, Session S8, Policy and Legal Approaches for *Nanotechnology*, Materials Research Society (MRS) Fall Meeting, November 28-December 2, 2005, Boston, Massachusetts.

- Member of the International Scientific Committee, *The First European Conference on the Environmental Applications of Advanced Oxidation Processes (EAAOP)*, September 7-9, 2006, Chania, Crete, Greece.

- Chair of the session *Disinfection*, *The First European Conference on the Environmental Applications of Advanced Oxidation Processes (EAAOP)*, September 7-9, 2006, Chania, Crete, Greece.

- Member of the International Organizing Committee, *The 11th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications*, September 25-28, 2006, Pittsburgh, Pennsylvania.

- Chair of the International Organizing Committee, *The 12th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 25-28, 2006, Pittsburgh, Pennsylvania.

- Chair of the session *Fenton-Based Advanced Oxidation Technologies*, *The 12th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 25-28, 2006, Pittsburgh, Pennsylvania.

- Moderator/Chair of the *sessions A and B on Chemical Oxidation for Water and Wastewater Treatment, The 37th Mid-Atlantic Industrial & Hazardous Waste Conference*, March 21-23, 2007, Cincinnati, Ohio.

- Co-Chair (with Prof. Gianluca Li Puma, University of Nottingham) of the International Organizing Committee, *The 13th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 24-27, 2007, Niagara Falls, New York.

- Member of the International Organizing Committee, The 12th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications, September 24-27, 2007, Niagara Falls, New York.

- Co-Chair of the session *Heterogeneous Photo-Fenton, The 13th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 24-27, 2007, Niagara Falls, New York.

- Chair of the session *Disinfection by AOTs, The 13th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 24-27, 2007, Niagara Falls, New York.

- Co-Chair of the session *Ozonation, UV/H_2O_2, Peroxidation, Electron-Chemical and Combined Advanced Oxidation Technologies, The 13th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 24-27, 2007, Niagara Falls, New York.

- Co-Chair of the session *Biological Applications, The 12th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications,* September 24-27, 2007, Niagara Falls, New York.

- Chair of the session *Modeling, The 12th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications,* September 24-27, 2007, Niagara Falls, New York.

- Organizer of the *Workshop on Advanced Oxidation Technologies in Water Treatment: Fundamentals and Applications, The 2007 Water Quality Technology Conference (WQTC)*, November 4-8, 2007, Charlotte, North Carolina.

- Member of the International Organizing Committee, *1st International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N)* (Conference Organizers: E. I. Meletis, E. C. Aifantis, E. Kaxiras), June 16-18, 2008, Halkidiki, Greece.

- Symposium Chair (with Co-Chairs: G. Kordas (NCSR Demokritos, Hellas) and Y. Sakka (National Inst. Mater. Sci., Japan)), *Nano-Containers and Environmental Applications, Implications, and Ethics*, 1st International Conference from Nanoparticles and Nanomaterials

to Nanodevices and Nanosystems (IC4N) (Conference Organizers: E. I. Meletis, E. C. Aifantis, E. Kaxiras), June 16-18, 2008, Halkidiki, Greece.

- Member of the International Organizing Committee, *The 13th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications,* September 22-25, 2008, San Diego, California.

- Co-Chair (with Prof. Gianluca Li Puma, University of Nottingham) of the International Organizing Committee, *The 14th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 22-25, 2008, San Diego, California.

- Chair of the session *Non-Thermal Plasma and Sonolysis, The 14th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 22-25, 2008, San Diego, California.

- Chair of the session *Fenton and Photo-Fenton-I, The 14th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 22-25, 2008, San Diego, California.

- Co-Chair (with Prof. Gianluca Li Puma, University of Nottingham) of the session *Ozonation and Combined AOTs, The 14th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 22-25, 2008, San Diego, California.

- Co-Chair (with Prof. Gianluca Li Puma, University of Nottingham) of the session *Semiconductor Photocatalysis, The 14th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 22-25, 2008, San Diego, California.

- Chair of the session *Photolysis, Peroxidation, Peroxymonosulfate and Combined AOTs, The 14th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, September 22-25, 2008, San Diego, California.

- Member of the International Organizing Committee, *The 5th European Meeting on Solar Chemistry and Photocatalysis: Environmental Application, (SPEA 5)* (Chairman: Prof. Leonardo Palmisano; co-Chairman: Prof. Vincenzo Augugliaro), October 4-8, 2008, Sicily, Italy.

- Organizer (with Prof. Judy Westrick) of the session workshop *Emerging Aspects on Harmful Algal Blooms and their Effects*, ST2 Special Topic Session, AWWA Water Quality Technology Conference and Exposition, November 17, 2008, Duke Energy Center, Cincinnati, Ohio.

- Organizer (with Dr. James Sinclair, Dr. Armah de la Cruz, and Prof. Judy Westrick) of the one-day workshop *Emerging Aspects on Harmful Algal Blooms and their Effects on Drinking Water Quality*, November 18, 2008, US Environmental Protection Agency, Cincinnati, Ohio.

- Member of the International Scientific Committee, *International Conference on Xenobiotics in the Urban Water Cycle*, XENOWAC 2009, March 11-13, 2009, Limassol, Cyprus.

- Chair of the session *International Conference on Xenobiotics in the Urban Water Cycle*, XENOWAC 2009, March 11-13, 2009, Limassol, Cyprus.

- Member of the International Scientific Committee, The IASTED International Conference on Solar Energy (SOE 2009), March 16-18, 2009, Phuket, Thailand.

- Chair of the session *Nanotechnology and the Environment: Emphasis on Green Nanotechnology – Nanotechnologies for Environmental Cleanup, Division of Industrial & Engineering Chemistry* (cosponsored by the Divisions of Inorganic Chemistry and NANO), March 22-26, 2009, Salt Lake City, Utah.

- Member of the International Scientific Committee, *International Conference on Water, Environment and Health Sciences (ICWEHS): The Challenges of the Climate Change,* April 13-17, Universidad de las Americas-Puebla, Mexico.

- June, Duke

- Member of the International Organizing Committee, 2nd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N) (Conference Organizers: E. I. Meletis, M. Sitti, C. Politis), June 28-July 3, 2009, Rhodes, Greece.

- Co-chair (with P. Colomban) of the session Nano-Multidisciplinary NM-2, 2nd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N) (Conference Organizers: E. I. Meletis, M. Sitti, C. Politis), June 28-July 3, 2009, Rhodes, Greece.

- Co-chair and Open Floor Discussion Leader (with Claude Levy-Clement) of the session Nanotechnology Applications: Energy, Bio, Environmental at the Aegean Nanoscience and Nanotechnology Workshop, July 2-3, 2009, Rhodes, Greece.

- Aug. 2009, ACS

- Co-Chair (with Dr. V. Vilar) of Session 17: Fenton Processes 3, The 2nd European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP2), September 7-9, 2009, Nicosia, Cyprus.

- Member of the International Scientific Committee, First International Workshop on Application of Redox Technologies in the Environment, ARTE'2009, September 14-15, 2009, Istanbul, Turkey.

- Member of the International Organizing Committee, *The 14th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications,* October 5-8, 2009, The Conference Center, Niagara Falls, New York.

- Conference Co-Chair (with Prof. Gianluca Li Puma, University of Nottingham) of the International Organizing Committee, *The 15th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, October 5-8, 2009, The Conference Center, Niagara Falls, New York.

- Chair of *Session VI: Water Treatment II, The 14th International Conference on TiO_2 Photocatalysis: Fundamentals and Applications,* October 5-8, 2009, The Conference Center, Niagara Falls, New York.

- Co-Chair (with Prof. Gianluca LiPuma) of *Session I: UV/H_2O_2 and VUV/H_2O_2, The 15th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, October 5-8, 2009, The Conference Center, Niagara Falls, New York.

- Co-Chair (with Prof. Madjid Mohseni) of *Session II: UV/H_2O_2,UV Photocatalysis, Sonophotolysis, Photo-Fenton, and Electro-Fenton, The 15th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, October 5-8, 2009, The Conference Center, Niagara Falls, New York.

- Co-Chair (with Prof. Nilsun H. Ince) of *Session III: Sonolysis, Photocatalysis, Fenton, Electro-Fenton, and In-Situ Oxidation, The 15th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, October 5-8, 2009, The Conference Center, Niagara Falls, New York.

- Symposium Organizer (co-Organizer: Nora Savage), Nanotechnology: Enabling Sustainable Solutions for Potable Water, Division of Environmental Chemistry, 239th American Chemical Society National Meeting and Exposition, San Francisco, California, March 21-25, 2010.

- Member of the International Scientific Advisory Committee, *Third International Conference on Environmental Toxicology*, May 4-6, 2010, Limassol, Cyprus.

- Member of the International Scientific Advisory Committee, *The 6th European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA 6)*, June 13-16, 2010, Prague, Czech Republic.

- Member of the International Program Committee, *The 6th International Conference on Sustainable Water Environment- Climate Change and Water Infrastructures*, July 29-31, 2010, University of Delaware, Newark, Delaware.

- Chair of *Session 4.8. Separations, The 6th International Conference on Sustainable Water Environment-Climate Change and Water Infrastructures*, July 29-31, 2010, University of Delaware, Newark, Delaware.

- Member of the International Scientific Committee, *The Eighth International IWA Symposium on Waste Management Problems in Agro-Industries- AGRO 2011*, June 22-24, 2011, Cesme, Izmir, Turkey.

- Conference Co-Chair (with Prof. Gianluca Li Puma, University of Nottingham) of the International Organizing Committee, *The 16th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil*, November 15-18, 2010, San Diego California, U.S.A.

- Session Chair, AOTs-16

- Organizer (with co-organizers: Wonyong Choi, Kelvin Gregory, Woojin Lee, Gregory Lowry, T. David Waite) of the Pacifichem Symposium: *Redox Processes on Nanoparticles, Nanomaterials, and Nanostructured Systems in the Environment* (Symposium # 272, presented on December 19 and 20; three oral sessions and one poster session), *Pacifichem 2010*, December 15-20, 2010, Honolulu, Hawaii, USA.

- Session chair (with co-chair: Wonyong Choi), Oral Session 3 of the Pacifichem Symposium *Redox Processes on Nanoparticles, Nanomaterials, and Nanostructured Systems in the Environment* (Symposium # 272, oral session 3, presented on December 20, 7:45-11:05 am), *Pacifichem 2010*, December 15-20, 2010, Honolulu, Hawaii, USA.

- Session Presider, Poster Session, Pacifichem Symposium *Redox Processes on Nanoparticles, Nanomaterials, and Nanostructured Systems in the Environment* (Symposium # 272, poster session, presented on December 19, 7:00-9:00 pm), *Pacifichem 2010*, December 15-20, 2010, Honolulu, Hawaii, USA.

- Symposium Organizer (co-Organizers: W. Cooper, W. Arnold, S. Snyder), Occurrence, Detection, Removal, and Environmental Fate of Pharmaceutical and Personal Care Products in Wastewater, Groundwater, and Other Sources of Water Supply, Division of Environmental Chemistry, 241st American Chemical Society National Meeting and Exposition, Anaheim, California, March 27-31, 2011.

- Session Chair (co-Chair: W. Cooper), Occurrence, Detection, Removal, and Environmental Fate of Pharmaceutical and Personal Care Products in Wastewater, Groundwater, and Other Sources of Water Supply (Organizers: W. Arnold, W. Cooper, D. Dionysiou, S. Snyder), Session: Biodegradation, Photolysis and Sorption of Pharmaceuticals, Division of Environmental Chemistry, 241st American Chemical Society National Meeting and Exposition, Anaheim, California, March 27-31, 2011.

- Session co-Chair (Chair: W. Cooper), Occurrence, Detection, Removal, and Environmental Fate of Pharmaceutical and Personal Care Products in Wastewater, Groundwater, and Other Sources of Water Supply (Organizers: W. Arnold, W. Cooper, D. Dionysiou, S. Snyder), Division of Environmental Chemistry, Session: Advanced Oxidation Processes, 241st American Chemical Society National Meeting and Exposition, Anaheim, California, March 27-31, 2011.

- Member of the International Program Committee, International Conference on Energy, Environment, Entrepreneurship, and Innovation (ICEEEI-11), May 27-29, 2011, Lanzarote, Canary Islands, Spain.

- Conference Co-Chairman (Chair: Changgen Feng) The 2011 International Symposium on Environmental Science and Technology (ISEST), Dongguan, Guangdong Province, China, June 1-4, 2011.

- Session Chair, Water Pollution and Water Quality Control (I), The 2011 International Symposium on Environmental Science and Technology (ISEST), Dongguan, Guangdong Province, China, June 1-4, 2011.

- Member of the International Organizing Committee, The 8th Symposium on Waste Management Problems in Agro-Industries (Agro'2011), June 22-24, 2011, Çeşme, Turkey.

- Member of the International Organizing Committee, The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N) (Conference Organizers: E. I. Meletis, A. Mitraki, A. Odysseos, C. Politis), June 26-29, 2011, Crete, Greece.

- Chair (with Co-chairs: Prof. Jorge Gardea-Torresdey, University of Texas at El-Paso, and Dr. Polycarpos Falaras, Demokritos Research Center, Greece) of the Symposium on Environmental Applications and Implications (June 27, 2011), The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N) (Conference Organizers: E. I. Meletis, A. Mitraki, A. Odysseos, C. Politis), June 26-29, 2011, Crete, Greece.

- Chair (with Co-chair: Prof. A. Christou) of the Session on Nano-multidisciplinary 2 (NM-2) (June 28, 2011), The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N) (Conference Organizers: E. I. Meletis, A. Mitraki, A. Odysseos, C. Politis), June 26-29, 2011, Crete, Greece.

- Chair of the Session on Environmental Applications and Implications, Cretan Workshop on Global Challenges & Opportunities for Nanotechnology (June 29, 2011), The 3rd International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N) (Conference Organizers: E. I. Meletis, A. Mitraki, A. Odysseos, C. Politis), June 26-29, 2011, Crete, Greece.

- Chair (with Co-chair Helen Hsu-Kim, Duke University) of the *Session on Nano-scale Issues in Environmental Engineering and Science, The Association of Environmental Engineering and Science Professors (AEESP) Education and Research Conference*, July 10-12, 2011, Tampa, Florida.

- Symposium co-Organizer (co-Organizers: Woojin Lee, Kelvin B. Gregory, Wonyong Choi, David Waite), Abiotic and Biotic Interactions at Nano-Scale Interfaces, 242nd American Chemical Society (ACS) National Meeting, August 28-September 01, 2011, Denver, Colorado.

- Symposium co-Organizer (co-Organizers: Fernando L. Rosario-Ortiz, Karl Linden, Stephen P. Mezyk), Chemistry of Hydroxyl Radicals in Natural and Engineered Aqueous Systems, 242nd American Chemical Society (ACS) National Meeting, August 28-September 01, 2011, Denver, Colorado.

- Session co-Chair (co-Chairs: Karl Linden and Fernando L. Rosario-Ortiz), Chemistry of Hydroxyl Radicals in Natural and Engineered Aqueous Systems (Organizers: Dionysios D. Dionysiou, Fernando L. Rosario-Ortiz, Karl Linden, and Stephen P. Mezyk), Session: Advanced (Oxidation Processes, 242nd American Chemical Society (ACS) National Meeting, August 28-September 01, 2011, Denver, Colorado.

- Member of the International Scientific Advisory Board, the 3rd International Symposium on Environmental Management, SEM – Towards Sustainable Technologies (SEM2011), October 26 - 28, 2011, Zagreb, Croatia.

- Member of the International Scientific Advisory Committee, 1st International Conference on Advances in Environmental Chemistry (AEC), November 16-18, 2011, Aizawl, India.

- Member of the International Scientific Advisory Committee, International Conference on Recycling and Reuse" (R&R, 2012), June 4-6, 2012, Istanbul, Turkey.

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CURRENT AND RECENT (Past 48 Months) COLLABORATORS

State and National

Souhail Al-Abed	U.S. EPA, Cincinnati, Ohio.
Pnina Ari-Gur	Mechanical and Aeronautical Engineering, Western Michigan University, Kalamazoo, Michigan.
Paul Bishop	Department of Civil and Environmental Engineering, University of Cincinnati, Cincinnati, Ohio.
Bill Connick	Chemistry Department, University of Cincinnati.
Armah de la Cruz	U.S. EPA, Cincinnati, Ohio.
Don R. Deis	PBS&J, Jacksonville, Florida.
Hugo Destaillats	Lawrence Berkeley National Laboratory Indoor Environment Department, Berkeley, California
Mike Gonzalez	U.S. EPA, Cincinnati, Ohio.
Vadim Guliants	Department of Chemical and Materials Engineering, University of Cincinnati, Cincinnati, Ohio.
Howard L. Hertzberg	Du Pont
Amid P. Khodadoust	Department of Civil and Materials Engineering, University of Illinois at Chicago, Chicago, Illinois.
Alexander Kravtsov	Alfa Technology LLC, Cincinnati, Ohio.
Gregory V. Lowry	Department of Civil and Materials Engineering, Carnegie Mellon University, Pittsburgh, Pennsylvania.
Suzanne Lunsford	Wright State University, Ohio.
Darren Lytle	U.S. EPA, Cincinnati, Ohio.
Cheryl L. Miller	PBS&J, Jacksonville, Florida.
Vasu Namboodiri	U.S. EPA, Cincinnati, Ohio.
Daniel B. Oerther	Department of Civil and Environmental Engineering, University of Cincinnati.
Ian Papautsky	Electrical and Computer Engineering, University of Cincinnati.
Kevin O'Shea	Chemistry Department, Florida International University, Miami, Florida.
Mike Schock	U.S. EPA, Cincinnati, Ohio.
Jody Shoemaker	U.S. EPA, Cincinnati, Ohio.
Tim Keener	Department of Civil and Environmental Engineering, University of Cincinnati.
Tom Speth	U.S. EPA, Cincinnati, Ohio.
George A. Sorial	Department of Civil and Environmental Engineering, University of Cincinnati.
Makram T. Suidan	Department of Civil and Environmental Engineering, University of Cincinnati.
Vladimir Tsibulsky	Department: Psychiatry, College of Medicine, University of Cincinnati.
Thomas P. Tufano	Du Pont.
Gary (Guixiang) Yang	Spectrum Magnetics, LLC, Newark, Delaware.
Rajender Varma	U.S. EPA, Cincinnati, Ohio.

Judy Westrick	Lake Superior State University

International

Erick R. Bandala	Departamento de Ingeniería Civil y Ambiental, Universidad de Las Américas-Puebla, Puebla, México
Cesar Dopazo	Department of Materials Science and Technology, Universidad de Zaragoza, Zaragoza, Spain.
Patrick Dunlop	Nanotechnology and Integrated Bio-Engineering Centre, University of Ulster at Jordanstown, Northern Ireland.
Aggelos Efstathiou	Department of Chemistry, University of Cyprus, Nicosia, Cyprus.
Polycarpos Falaras	Institute of Physical Chemistry, NCSR Demokritos, Athens, Greece.
Valerie Hequet	Department of Energy and Environmental Systems, Ecole des Mines de Nantes, Nantes, France.
Anastasia Hiskia	Institute of Physical Chemistry, NCSR Demokritos, Athens, Greece.
Panagiotis Lianos	Engineering Science Department, University of Patras Patras, Greece.
Gianluca Li Puma	Chemical Engineering Department, The University of Nottingham, United Kingdom.
Cecile Raillard	Department of Energy and Environmental Systems, Ecole des Mines de Nantes, Nantes, France.
Juan Rodríguez	Faculty of Sciences, Universidad Nacional de Ingeniería, Lima, Peru.
Elias Stathatos	Department of Electrical Engineering, Technological-Educational Institute of Patras, Patras, Greece.
Mihaela Stefan	Trojan Technologies, London, Ontario, Canada.
Luis G. Torres	Instituto de Ingeniería Universidad Nacional Autónoma de México, Mexico.
M. Vijay	Department of Physics, Bharathiar University, Coimbatore, Tamilnadu, India.

CONSULTING ACTIVITIES

Technical Support Services for OSDF Administrative and Engineering Services Fluor Fernald, (Total: $35,379, Individual: $ 3,281), 2001. Note this was used to supplement summer salary and no additional personal income was obtained from this service).

LAST REVISION DATE: *October 17, 2011*