## Maria G. Antoniou (Ph.D.)

Deaprtment of Environmental Science and Technology, Cyprus University of Technology, Corner of Athinon and Anexartisias 57; PO Box: 50329, 3603 Lemesos, Cyprus Tel: +357 25002277; Fax: +357 25002842 Email: <u>maria.antoniou@cut.ac.cy</u> (Last Updated: Sept 2016)

#### SUMMARY

- *Ph.D.* in Environmental Science
- **Specialty** on Environmental Applications of Advanced Oxidation Processes/Technologies and Nanostructured Functional Materials, preparation of Analytical Methods for Organic Contaminants, Interpretation of MS/MS spectra.
- **Experience** on Advanced Oxidation Processes/Technologies for the Treatment of Water and Wastewater
- **Keywords**: Advanced Oxidation Processes/Technologies, Water reclamation processes, UV, Solar Light Nanotechnology, Oxidants, Sulfate radicals, Hydroxyl radicals, Intermediates, Mass Spectrometry, Cyanotoxins, Microcystin-LR, Cylindrospermopsin, BMAA, Toxicity, Urine metabolites, Creatinine, Pharmaceuticals, Nanostructured Materials, Titania, Catalysis, Thin and Thick Films, Sol-Gel, Water and Wastewater Treatment, Activated carbon, Adsorption, Ozone, Bromate, Disinfection by-products, Ballast Water, Hydroponics and Plant Uptake of Cyanotoxins.

#### **EDUCATION**

- 2010 Ph.D in Environmental Science from the Department of Civil and Environmental Engineering of the University of Cincinnati. (**GPA: 3.916/4.00**). Dissertation "Mechanistic Studies on the Degradation of Cyanobacterial Toxins and Other Nitrogen containing Organic contaminants with Hydroxyl Radical and Sulfate Radical-based Advanced Oxidation Technologies"
- 2002 Diploma (four-year term) from the Department of Chemistry of The University of Cyprus (UCY). **GPA: 7.18/10**. Diploma Thesis Grade: 8.5/10 (Excellent). Title: "Boron in Natural Waters, Methods Validation"

#### WORK EXPERIENCE AND ACTIVITIES:

**August 2016:** Assistant Professor at the Department of the Environmental Science and Technology of the Cyprus University of Technology.

**July 2016:** Erasmus Mobility Program- to conduct research on the treatment of cyanotoxins for 5 weeks at the School of Pharmacy of the Robert Gordon University with the CyanoSol group under the supervision of Dr. Christine Edwards and Dr. Linda Lawton.

**June 2015:** Short Term Scientific Mission (STSM, 2500€) to conduct research on the treatment of cyanotoxins for 5 weeks at the School of Pharmacy of the Robert Gordon University with the CyanoSol group under the supervision of Dr. Christine Edwards and Dr. Linda Lawton.

**May 2015:** 5-day training in Wageningen, NL, to participate in the "Workshop on BMAA Analysis". Hosted by Dr. Els Faassen and Dr. Miquel Lurling.

**May 2015**: 3-day training in Evian, France, to participate in a combined CyanoCOST / NETLAKE training school to learn state-of-the-art techniques for collecting and processing samples from cyanobacteria and to prepare Trainees for participation in the upcoming CyanoCOST / NETLAKE European multi-lake survey. Hosted by Dr. Bastiaan Ibelings and Evanthia Mantzouki of the Université de Genève.

**Sept 2014:** 5-day training on Hydrogen Peroxide Treatment of cyanobacterial contaminated Lakes. Hosted by University of Amsterdam (UvA), Prof. J.C.P. (Hans) Matthjis.

**July 2014:** Erasmus Teachers' Mobility Program: to get trained in remediation technologies that utilize zero valence iron (ZVI) particles at the Universidad Complutense de Madrid (UCM). Contact point: Dr. Sergio Rodríguez.

July 2013: Short Term Scientific Mission (STSM, 2000€) to contact research on cyanotoxins for 4 weeks at the "Catalytic-Photocatalytic Processes Laboratory (Solar Energy, Environment) and Environmental Analysis Laboratory" of NCSR Demokritos under the supervision of Dr. Anastasia Hiskia.

**May 2013**: Assigned co-Editor on the book that Working Group 3 of the CYANOCOST action will prepare with tentative title: "*Water treatment for purification from cyanobacteria and cyanotoxins*" **Editors**: Anastasia Hiskia, Dion Dionysiou, <u>Maria G. Antoniou</u>, and Triantafyllos Kaloudis.

**May 2013-April 2016:** MC Member [ES1105 CY] to COST Action ES1105, CYANOCOST-Cyanobacterial blooms and toxins in water resources: Occurrence, impacts and management.

**January 2013:** Erasmus Teachers' Mobility Program, Gave s short course on the application of AOPs on water at the Environmental Engineering Department of DTU. Contact point: Dr. Henrik R. Andersen

**May 2012 – current:** Lecturer at the Department of the Environmental Science and Technology of the Cyprus University of Technology.

**January 2012** – **April 2012:** Contractor for the Department of Environment of the Ministry of Agriculture, Natural Resources and Environment of Cyprus. Providing consulting services on the protection of the water quality at the European and International level, prior and during the Cyprus EU Presidency of 2012.

**October 2009 – October 2011:** Post doctoral fellow at the Technical University of Denmark, DTU, 2800 Kgs. Lyngby, Denmark, working with UV-based AOPs for ground water treatment and ozone for wastewater treatment. Mentoring graduate students from DTU-Environment, Lund University and guest visitors (ERASMUS).

**June 2008** – **August 2008:** Supervisor/Mentor of Mr. Matthew Bosch as part of the Research Experiences for Undergraduates (REU) program of NSF

December 2007: Accepted for PhD Candidacy in the Water Quality Program of CEE

**June 2007 – August 2007:** Supervisor/Mentor of Ms. Emily Riley as part of the Integrative Graduate Education and Research Traineeship (IGERT) program of NSF.

**June 2006** – **October 2006:** Supervisor/Mentor of Mrs. Usha Nambiar, a visitor scholar in the labs of Dr. Dionysiou, at UC. Responsible for teaching Mrs. Usha Nambiar analytical methods for the detection of contaminants of NASA's interest (HPLC, TOC) and operation of the photocatalytic reactors.

September 2004 - August 2005: Supervisor for Brian Yates, Daniel Breetz, and Elizabeth Myre (University of Cincinnati) in National Science Foundation-Funded Project on Bio-templated Synthesis of  $TiO_2$  Nanoparticles.

**September 2004** – **December 2009:** Laboratory Manager, at the University of Cincinnati for the Nanotechnology and Photocatalysis Lab and Advanced Oxidation Technology Lab in Water Quality Program, Civil and Environmental Engineering. Responsible for the maintenance of the analytical instruments in the labs and training new students (HPLC and TOC).

**November 2004 - December 2009:** Guest Worker (Grantee) at the US Environmental Protection Agency (USEPA), NERL Microbiological & Chemical Exposure Research Division and University of Cincinnati, under the supervision of Dr. Armah A. de la Cruz.

September 2003 - December 2009: Graduate and Teaching Assistant at the University of Cincinnati

**February 2003 - August 2003:** In State General Laboratory (SGL), the main and longest established Institution in Cyprus in the fields of Chemistry and Microbiology, as technician's assistant. SGL encompasses 6 sections with 18 laboratories. I worked in the Environmental Chemistry and Effluent Control Lab and the Forensic Chemistry Lab.

August 2002 - August 2003: Delivered supporting lessons (Chemistry) to high school students

**September 2002** - **April 2003:** In Panaska Trading Company, as a chemist. Panaska is a company that distributes chemicals to a wide range of industries (detergents, paints, cosmetics) and Institutes (The University of Cyprus, The Geological Survey Department).

# HEALTH AND SAFETY TRAINING PROGRAM

- *Hazardous Waste Training*: University of Cincinnati Health Service (2005)
- *HAZWOPER* (29 CRF 1910): 40-hours training (July 2007)
- USEPA 24-hour Laboratory Safety Training (October 2007)

## TEACHING ASSISTANT

## At the Department of the Civil and Environmental Engineering, UC

- 1. Summer Quarter 2004: 20-257-471: Environmental Engineering I
- 2. Fall Quarter 2004: 20-257-471: Environmental Engineering I
- 3. Spring Quarter 2005: 20-CEE- 654: Physical-Chemical Processes for Water Quality Control
- 4. Spring Quarter 2005: 20-CEE- 657: Unit Operation Laboratory and Process Monitoring
- 5. Spring Quarter 2005: 20-CEE- 658: Environmental Instrumentation
- 6. Fall Quarter 2005: 20-CEE-204: Introduction to Environmental Assessment and Remediation\*
- 7. Summer Quarter 2006: 20-257-471: Environmental Engineering I
- 8. Fall Quarter 2006: 20-257-471: Environmental Engineering I \*\*

9. Spring Quarter 2007: 20-CEE- 657: Unit Operation Laboratory and Process Monitoring

- 10. Fall Quarter 2007: 20-257-471: Environmental Engineering I \*\*
- 11. Spring Quarter 2008: 20-CEE- 654: Physical-Chemical Processes for Water Quality Control
- 12. Spring Quarter 2008: 20-CEE- 657: Unit Operation Laboratory and Process Monitoring
- 13. Spring Quarter 2009: 20-CEE- 657: Unit Operation Laboratory and Process Monitoring

\* The class required the preparation of two 50min long lectures on "Drinking Water Treatments" and the preparation of a test quiz based on the material covered.

\*\* Preparation of lecture notes and teaching three to five 90min long lectures

## At the Technical University of Denmark (DTU)

14. Preparation of modules for the e-learning course of DTU on "Water Treatment Process"

## **TEACHING COURSES at CUT**

## At the Cyprus University of Technology (CUT)

- 1. Toxicology I (EST 313) Fall 2012, Fall 2013, Fall 2014, Fall 2015
- 2. Toxicology I Laboratory (EST 313E) Fall 2012, Fall 2013, Fall 2014, Fall 2015
- 3. Environmental Physics (EST 301) Fall 2012, Fall 2013, Fall 2014, Fall 2015
- 4. Instrumental Analysis Laboratory (EST 225) Spring 2013, Spring 2014, Spring 2015

5. Storage and transport of fossil fuels (EST 537-in collaboration with 2 more faculty members of EST) Spring 2014

6. Water Treatment (EST 536) Spring 2013 (the class was cancelled due to low participation)

## **PROJECTS-REPORTS**

Written or Responsible for Annual and/or Final Reports for the Following Projects:

## At the University of Cincinnati

- 1. "Monitoring, Photochemical Fate, and Oxidative Degradation by UV and Solar-based Catalytic Technologies of Cyanotoxins in Freshwater Estuaries" supported by US Environmental Protection Agency (EPA), USA (September 2006 December 2009)
- "Hydroxyl Radical and Sulfate Radical-Based Advanced Oxidation Nanotechnologies for the Destruction of Biological Toxins in Water" supported by National Science Foundation (NSF) Career Award, USA (July 2005 – December 2009)
- 3. "High Performance TiO<sub>2</sub> Photocatalytic Coatings and Membranes for the Purification, Disinfection and Recycle of Water and Air in Space Applications" supported by National Aeronautics and Space Administration (NASA), USA (September 2003 – November 2006)

## At the Technical University of Denmark (DTU)

- 4. Due to the confidentiality agreement signed with Siemens Water Technology, the title of the project is withheld.
- 5. "Mistrapharma Project" sponsored by the Swedish research foundation, the Mistra foundation.

## At the Cyprus University of Technology (CUT)

6. Start-up package from CUT (40,000€). Starting July 2013-June 2015

## SUBMITTED PROPOSALS

- 1. WATER\_JPI (13/12/2013) CYANOHAZARD: Cyanotoxins as emerging freshwater hazards: sources, impacts and control. (rejected)
- 2. WATER\_JPI (13/12/2013) ORFEUS: Optimal (Re)use oF urban Effluents for a sUStainable development. (rejected)
- 3. Life+ (24/10/2014) CYANO-FREE: Treatment of cyanobacterial contaminated water for irrigation purposes. (rejected)
- 4. FACCE-JPI (4/3/2015) HYDROCH4BIOMASS: Near Zero Energy Phytotronic and Hydroponic Systems Operated on Reduced Quality Water. (rejected)

- 5. WATER\_JPI (4/5/2015) CYANOVEL: A Novel and Sustainable approach for the treatment of cyanobacterial contaminated water resources. (rejected)
- 6. Life+ (1/10/2015) CYANOFREE: Sustainable treatment of cyanobacterial contaminated water for irrigation purposes. (rejected)
- 7. Life+ (1/10/2015) SustaAroma: Soil Conservation with Sustainable Use of Native Aromatic Species in Cyprus and Crete. (rejected)
- 8. Joint Call WATER and FACCE JPI (19/04/2016) CYANOPONIC: Sustainable management of cyanobacterial contaminated water utilized in Field Crops and Near Zero Energy Hydroponics. (submitted)

# COLLABORATIONS

## **Research Institutes**

- Dr. Dionysios D. Dionysiou: Thesis Advisor at the University of Cincinnati
- Dr. Armah A. de la Cruz: Supervisor at the USEPA, Cincinnati
- <u>Dr. Jody A. Shoemaker</u>: USEPA, Cincinnati. Collaborated on the LC/MS/MS analysis for the identification of intermediates formed during the photocatalysis of the cyanotoxin MC-LR and CYN
- <u>Prof. Kevin O'S</u>hea: Department of Chemistry and Biochemistry, Florida International University. Common Research Interests: AOPs, cyanobacteria, cyanotoxins.
- <u>Dr. Anastasia Hiskia:</u> Director of the Catalytic–Photocatalytic Processes (Solar Energy, Environment) and Environmental Analysis Laboratories, Institute of Physical Chemistry, NCSR Demokritos. Common Research Interests: AOPs, cyanobacteria, cyanotoxins, intermediates.
- <u>Dr. Stephen Macha</u>: Director of the Mass Spectrometry Facility of UC
- Dr. Larry Sallans: Director of the Mass Spectrometry Facility of UC
- <u>Dr. Henrik Rasmus Andersen</u>: Department of Environmental Engineering, Technical University of Denmark, DTU, Kgs. Lyngby, Denmark. Common Research Interests: AOPs, Treatment of water and wastewater.
- <u>Dr. Ioannis Fotidis</u>: Department of Environmental Engineering, Technical University of Denmark, DTU, Kgs. Lyngby, Denmark. Common Research Interests: AOPs, cyanobacteria.
- <u>Prof. Jes la Cour Jansen</u>, Department of Chemical Engineering, Lund University, Sweden, P.O. Box 124, SE-221 00 Lund, Sweden. Common Research Interests: Pharmaceuticals
- <u>Dr. Eva Eriksson:</u> Department of Environmental Engineering, Technical University of Denmark, DTU, Kgs. Lyngby, Denmark. Preparation of e-courses.
- <u>Dr. Sergio Rodríguez-Vega</u>, Department of Chemical Engineering, Universidad Complutense de Madrid, España. Common Research Interests: AOPs of xenobiotics
- <u>Dr. Stasinakis S. Athanasios</u>, Department of Environment, University of Aegean, Greece. Common Research Interests: removal of xenobiotics from water and AOPs.
- <u>Dr. Christine Edwards</u>, Deputy Director of CyanoSol Research, School of Pharmacy and Life Sciences, Robert Gordon University, Aberdeen, UK. Common Research Interests: analysis of cyanotoxins, intermediates, and toxicity.
- <u>Dr. Linda Lawton</u>, Director of CyanoSol Research, School of Pharmacy and Life Sciences, Robert Gordon University, Aberdeen, UK. Common Research Interests: Photocatalytic Oxidation of cyanobacteria and cyanotoxins.
- <u>Dr. Ambrose Furey</u>, Cork Institute of Technology, Bishopstown, Cork Ireland, Common Research Interests: Analysis of cyanotoxins
- <u>Dr. J.C.P. (Hans) Matthjis</u>, FNWI/IBED/AMB, University of Amsterdam, Common Research Interests: AOPs for the treatment of Cyano-HABs in lake water.
- <u>Dr. Petra Visser:</u> FNWI/IBED/AMB, University of Amsterdam, Common Research Interests: AOPs for the treatment of Cyano-HABs in lake water.

- <u>Prof. Bastiaan Ibelings</u>, Institut F.A. Forel, Université de Genève Common Research Interests: Cyano-HABs monitoring.
- <u>Dr. Judita Koreiviene</u>, Nature Research Centre, Laboratory of algology and microbial ecology, Akademijos Str. 2, LT-08412 Vilnius, Lithuania. Common Research Interests: Characterization of cyanobacteria.
- <u>Dr. Chrysi Laspidou</u>, Department of Civil Engineering, University of Thessaly, Pedion Areos, GR-38334, Volos, Greece. Common Research Interests: cyanotoxins.
- <u>Dr. Anabela Sousa de Oliveira</u>, Department of Technology and Design Department, Escola Superior de Tecnologia e Gestão (ESTG), Instituto Politécnico de Portalegre, Portalegre (IPP), Portugal. Common Research Interests: AOPs, xenobiotics, water and soil treatment
- <u>Prof. Evan Diamadopoulos</u>, Department of Environmental Engineering, Technical University of Crete, 73100 Chania, Greece, Common Research Interests: xenobiotics, AOPs, photocatalysis.
- <u>Dr. George Botsaris, Special Teaching Staff,</u> Department of Agricultural Sciences, Biotechnology and Food Science, Cyprus University of Technology. Common Research Interests: Analysis and monitoring of sea water.
- <u>Dr. Nikolas Tzotzakis, Lecturer,</u> Department of Agricultural Sciences, Biotechnology and Food Science, Cyprus University of Technology. Common Research Interests: AOPs, cyanobacterial contaminated water, and hydroponics.

#### Government and Semi-government organizations

- Water Development Department (Gerald Dörflinger). Collaborating on the monitoring of surface waters from cyano-HABs and on "green" in-lake treatment processes.
- Department of Environment (Costas Hadjipanayiotou). Removal of xenobiotics from drinking water.
- State General Laboratory (Dr. Popi Kanari and Dr. Maria Aletrari). Collaborating on the regulation of cyanotoxins and their inclusion into the new list of the Drinking Water Directive.
- Department of Fisheries and Marine Research (Dr. Konstantinos Antoniadis and Marina Argyrou). Monitoring of Limassol cost-line area near the harbor (chemical and microbiological analysis).
- Public Health Services of Limassol Municipality. Monitoring of Limassol cost-line area near the harbor (chemical and microbiological analysis).

## **Private Companies**

- Flow Water Technologies Ltd (Mark Hadfield). Consulting on the treatment of ballast water, removal of cyanobacterial scum form surface waters and removal of oil spills.
- KARMA Water Purification Systems Ltd. (Sotiris Michael). Consulting on the formation of disinfection by products during chlorination.

## JOURNAL REVIEWS

- Journal of Environmental Engineering
- Environmental Science and Technology
- Applied Catalysis B: Environmental
- Photochemistry and Photobiology A: Chemistry
- Journal of Hazardous Materials
- International Journal of Environmental Analytical Chemistry
- Environmental Engineering Science
- Toxicon

- Environmental Pollution
- Water Research
- Chemical Engineering Journal
- Energy & Environmental Science
- Environmental Science and Pollution Research
- Industrial & Engineering Chemistry Research
- CLEAN Soil, Air, Water
- Current Organic Chemistry
- Chemosphere
- RSC Advances
- Photochemical & Photobiological Sciences

## JOURNAL EDITOR

• Advances In Oceanography and Limnology (AIOL Journal) (2016-current)

## **PROFESSIONAL AFFILIATIONS**

- American Chemical Society (ACS) (2004 current)
- Association of Environ. Engineering and Science Professors (AEESP) (2004 2010)
- American Water Works Association (AWWA) (2006 current)
- Sigma Xi, The Scientific Research Society (2007 current)
- International Water Association (2010 current)
- Water Environment Federation (2008 2009)

## AWARDS AND HONORS

## National (US) and International

- Top 25 Most Cited Papers for 2010 and 2011 of Applied Catalysis B: Environmental for the paper "<u>Maria G. Antoniou</u>, Armah. A. de la Cruz, and Dionysios D. Dionysiou, Degradation of microcystin-LR using sulfate radicals generated through photolysis, thermolysis and e- transfer mechanisms. Applied Catalysis B: Environmental, **96** (2010), 290–298." August 2013.
- *NSF-AEESP Grand Challenge Student Paper Award*, Association of Environmental Engineering and Science Professors (AEESP) Conference, University of Iowa, July 26th-29th, 2009.
- Finalist in the Young Scientist Competition of the International Conference on Xenobiotics in the Urban Water Cycle, Paphos, Cyprus, March 2009
- *Graduate Student Award in Environmental Chemistry*, Division of Environmental Chemistry, American Chemical Society (ACS), January 2008
- *First Place* for poster presentation in the Fresh Idea Winner's Session in the 2007 Annual Conference and Exposition (ACE) in Toronto, ON, Canada (June 24-28).
- *Graduate Student Paper Award*, for the Research Paper "Investigation of the photocatalytic degradation pathway of creatinine: The effect of pH", Division of Environmental Chemistry, American Chemical Society (ACS), February 2007
- Certificate of Merit Award for First Paper Presentation, "Application of Mesoporous TiO<sub>2</sub> Photocatalysts for the Degradation of Microcystin-LR: The Degradation Pathway", American Chemical Society, Division of Environmental Chemistry, ACS 232<sup>nd</sup> National Meeting, September 10-14, San Francisco, 2006.
- *Sigma Xi Grants-in-Aid Research Award* for the Proposal "Destruction of the Cyanobacterial Toxins Microcystin- LR and Cylindrospermopsin with Advanced Oxidation Technologies (AOTs)", Sigma Xi, The Scientific Research Society, April 2006.

## State (Ohio)

- *Ohio American Water Works Association (OAWWA)*, 1<sup>st</sup> Place for Poster Presentation, 70<sup>th</sup> AWWA Ohio Section (OAWWA) Annual Conference, September 16-19, 2008, Toledo, Ohio.
- *Fresh Idea Winner*: Ohio Representative for the Poster competition of *Fresh Idea Winner* s at the ACE07. Travel Award (\$923) to participate in the Annual Conference and Exposition (ACE) on the 24-28 June, 2007 in Toronto from the MAC Committee and Young Professionals Committee of OAWWA and represent Ohio in the student poster competition
- *Ohio American Water Works Association (OAWWA)*, One of the three winners (1<sup>st</sup> Place) for the Research Paper Award and Presentation, 68<sup>th</sup> AWWA Ohio Section (OAWWA) Annual Conference, October 10-13, 2006, Cleveland, Ohio.

# University of Cincinnati

- Dissertation Completion Fellowship for 2009-2010, Graduate School of UC, June 10<sup>th</sup>, 2009
- UC Graduate Student Award for Exemplary Scholarship in the area of Physical Science and Engineering, May 27, 2009
- John David Eye Scholarship, Environmental Engineering and Science Division Awards, Department of Civil and Environmental Engineering, May 19, 2009
- 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.
- 2009 Jacob D. and Lillian Rindsberg Award, Graduate Research and Studies of University of Cincinnati, October 14, 2008
- 2008 College of Engineering Finalist for the Graduate Assistant Excellence in Teaching (April 29<sup>th</sup>, 2008)
- 2008 University Summer Research Fellowship, University of Cincinnati (June 08)
- 2008 Jacob D. and Lillian Rindsberg Award, Graduate Research and Studies of University of Cincinnati, December 5, 2007
- Best of Show Award, "Degradation of the cyanobacterial toxins microcystin- LR and cylindrospermopsin with TiO<sub>2</sub> photocatalysts: Reaction Intermediates" *The 2007 Graduate Student Research/Scholarship Forum of the University of Cincinnati*, March 2, 2007, Cincinnati, Ohio.
- 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.
- *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

# **Travel Awards**

- Travel Award (\$923) to participate in the Annual Conference and Exposition (ACE) on the 24-28 June, 2007 in Toronto from the MAC Committee and Young Professionals Committee of OAWWA and represent Ohio in the student poster competition
- Travel Fund Support from the Institute for Nanoscale Science and Technology (INST), University of Cincinnati.
- Travel Award (12,000 DKK) from the Otto Mønsteds Fond, Denmark to participate in the Pacifichem Conference 2010, December 15-20, 2010, Honolulu, Hawaii, USA.
- Travel Award (7,560 DKK) from the Otto Mønsteds Fond, Denmark to participate in the 2011 Joint World Congress & Exhibition, 20<sup>th</sup> IOA World Congress, May 23-27, 2011, Paris, France.

# MGA's RESEARCH GROUP-STUDENT AWARDS

#### International

- 1. My undergraduate advisee in research *Nikoletta I. Tsiarta*: Undergraduate Student Award in Environmental Chemistry, Division of Environmental Chemistry, American Chemical Society, April 2015.
- 2. My undergraduate advisee in research *Iosef B. Boraei*: Undergraduate Student Award in Environmental Chemistry, Division of Environmental Chemistry, American Chemical Society, April 2016.

#### SCIENTIFIC PUBLICATIONS

#### A. REFEREED JOURNAL ARTICLES (Peer Reviewing)

#### Published (h-index 15- based on Scopus)

- 1. <u>Maria G. Antoniou</u>, Armah A. de la Cruz and Dionysios D. Dionysiou, Cyanotoxins: A New Generation of Water Contaminants, *Journal of Environmental Engineering (ASCE)* **131** (9), (2005) 1239-1243.
- 2. Hyeok Choi, <u>Maria G. Antoniou</u>, Armah A. de la Cruz, Elias Stathatos and Dionysios D. Dionysiou, Photocatalytic TiO<sub>2</sub> Films and Membranes for the Development of Efficient Wastewater Treatment and Reuse Systems, *Desalination*, **202** (2006), 199-206; erratum **202** (2007)199-206.
- 3. <u>Maria G. Antoniou</u> and Dionysios D. Dionysiou, Application of immobilized titanium dioxide photocatalysts for the reclamation of water from NASA's spacecrafts wastewater streams: Degradation of Phenol and Creatinine, *Catalysis Today*, **124** (2007), 215-223.
- 4. Hyeok Choi, <u>Maria G. Antoniou</u>, Miguel Pelaez, Armah A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou, Visible light-activated mesoporous nitrogen doped TiO<sub>2</sub> for the destruction of microcystin-LR: Synthesis and photocatalytic activity, *Environmental Science* & *Technology*, **41** (2007), 7530-7535.
- 5. <u>Maria G. Antoniou</u>, 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., *Toxicon*, **51** (2008), 1103-1118.
- 6. <u>Maria G. Antoniou</u>, Jody A. Shoemaker, Armah. A. de la Cruz, and Dionysios D. Dionysiou, Unveiling New Degradation Intermediates/ Pathways from the Photocatalytic Degradation of Microcystin-LR, *Environmental Science & Technology* **42** (2008), 8877-8883.
- 7. <u>Maria G. Antoniou</u>, Usha Nambiar, and Dionysios D. Dionysiou, Investigation of the photocatalytic degradation pathway of the urine metabolite, creatinine: The effect of pH, *Water Research*, **43** (2009), 3956- 3963.
- 8. <u>Maria G. Antoniou</u>, Persoulla A. Nicolaou, Armah. A. de la Cruz, and Dionysios D. Dionysiou, Impact of the morphological properties of thin TiO<sub>2</sub> photocatalytic films on the detoxification of water contaminated with the cyanotoxin, microcystin-LR, *Applied Catalysis B: Environmental*, **91** (2009), 165-173.
- 9. <u>Maria G. Antoniou</u>, Armah. A. de la Cruz, and Dionysios D. Dionysiou, Degradation of microcystin-LR using sulfate radicals generated through photolysis, thermolysis and e-transfer mechanisms. *Applied Catalysis B: Environmental*, **96** (2010), 290–298.

- 10. <u>Maria G. Antoniou</u>, Armah. A. de la Cruz, and Dionysios D. Dionysiou, Intermediates and Reaction Pathways from the Degradation of Microcystin-LR with Sulfate Radicals, *Environmental Science & Technology*, **44** (2010), 7238-7244
- Armah A. de la Cruz, <u>Maria G. Antoniou</u>, 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 for Medicinal Chemistry Special Issue*, **11** (2011), 19-37.
- 12. <u>Maria. G. Antoniou</u> and Henrik R. Andersen. Evaluation of pre-treatments for inhibiting bromate formation during ozonation. *Environmental Technology*, (2012), 1-7.
- 13. Virender K. Sharma, Theodoros M. Triantis, <u>Maria G. Antoniou</u>, Xuexiang He, Miguel Pelaez, Changseok Han, Weihua Song, Kevin E. O'Shea, Armah A. de la Cruz, Triantafyllos Kaloudis, Anastasia Hiskia, Dionysios D. Dionysiou, Destruction of Microcystins by Conventional and Advanced Oxidation Processes: A Review, *Separation and Purification Technology*, **91**, (2012), 3-17.
- 14. Kamilla M. S. Hansen, Sarah Willach, <u>Maria G. Antoniou</u>, Hans Mosbæk, Hans-Jørgen Albrechtsen and Henrik R. Andersen, Effect of pH on the formation of disinfection byproducts in pool water Is less THMs better?, *Water Research*, 46 (2012), 6399-6409.
- 15. <u>Maria. G. Antoniou</u>, Gerly Hey, Sergio Rodríguez-Vega, Aikaterini Spiliotopoulou Jerken Fick, Mats Tysklind, Jes la Cour Jansen, and Henrik R. Andersen, Required ozone doses for removing pharmaceuticals from wastewater effluents, *Science of the Total Environment*, **456**-**457** (2013), 42-49.
- 16. Armah A. de la Cruz, Anastasia Hiskia, Triantafyllos Kaloudis, Neil Chernoff, Donna Hill, <u>Maria G. Antoniou</u>, Xuexiang He, Keith Loftin, Kevin O'Shea, Cen Zhao, Miguel Pelaez, Changseok Han, Trevor J. Lynchf and Dionysios D. Dionysiou, A review on cylindrospermopsin: the global occurrence, detection, toxicity and degradation of a potent cyanotoxin, *Environmental Science Processes & Impacts* (2013), DOI: 10.1039/c3em00353a
- 17. <u>Maria. G. Antoniou</u>, and Henrik R. Andersen. Comparison of UVC/S<sub>2</sub>O<sub>8</sub><sup>-</sup> with UVC/H<sub>2</sub>O<sub>2</sub> in terms of efficiency and cost for the treatment of a specific ground water, *Chemosphere*, 119 (2015), S81–S88.
- 18. Elisabeth J. Faassen, <u>Maria G. Antoniou</u>, Wendy Beekman-Lukassen, Lucie Blahova, Ekaterina Chernova, Christophoris Christophoridis, Audrey Combes, Christine Edwards, Jutta Fastner, Joop Harmsen, Anastasia Hiskia, Leopold Ilag, Tryantafyllos Kaloudis, Srdjan Lopičić, Miquel Lürling, Hanna Mazur-Marzec, Jussi Meriluoto, Cristina Porojan, Yehudit Viner-Mozzini and Nadezda Zguna. A collaborative evaluation of LC-MS/MS based methods for BMAA analysis: Soluble bound BMAA found to be an important fraction. *Marine Drugs* 2016, 14(3), 45; doi:10.3390/md14030045.
- 19. <u>Maria. G. Antoniou</u>, Cosima Sichel, Klaus Andre, and Henrik R. Andersen. Novel pretreatments to control bromate formation during ozonation. *Journal of Hazardous Materials*, 2016 (article in press, **DOI:** 10.1016/j.jhazmat.2016.03.041.

#### In preparation,

20. <u>Maria. G. Antoniou</u>, I. Boraei, M. Abhishek, C. Edwards, and L.A. Lawton. Enhancing photocatalytic degradation of the cyanotoxin microcystin-LR with the addition of sulfate-

radical generating oxidants. Chemical Engineering Journal, 2016 (to be resubmitted).

# **B. PAPERS RANKED IN THE TOP 25 OR MOST CITED**

- Hyeok Choi, <u>Maria G. Antoniou</u>, Miguel Pelaez, Armah A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou. 2007. Mesoporous Nitrogen-Doped TiO<sub>2</sub> for the Photocatalytic Destruction of the Cyanobacterial Toxin Microcystin-LR under Visible Light Irradiation. Environmental Science & Technology 41:7530-7535. Most –Accessed Articles (# 16), October-December, 2007.
- 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. *Applied Catalysis B: Environmental*, **96** (2010), 290–298. **TOP CITED in 2010**, **2011** (certificate sent on 13<sup>th</sup> August, 2013).
- Armah A. de la Cruz, Anastasia Hiskia, Triantafyllos Kaloudis, Neil Chernoff, Donna Hill, <u>Maria G. Antoniou</u>, Xuexiang He, Keith Loftin, Kevin O'Shea, Cen Zhao, Miguel Pelaez, Changseok Han, Trevor J. Lynch, and Dionysios D. Dionysiou. 2013. A review on cylindrospermopsin: The global occurrence, detection, toxicity and degradation of a potent cyanotoxins. *Environmental Science: Processes & Impacts* 15:1979-2003. Associate Editor highlights (# 3) focusing on the topic of environmental molecular toxicology. June, 2014.

## C. BOOKS/BOOKS CHAPTERS (Peer Reviewing)

- 21. Miguel Pelaez, <u>Maria G. Antoniou</u>, Xuexiang He, Dionysios D. Dionysiou, Armah A. de la Cruz, Katerina Tsimeli, Theodoros Triantis, Anastasia Hiskia, Triantafyllos Kaloudis, Christopher Williams, Mark Aubel, Andrew Chapman, Amanda Foss, Urooj Khan, Kevin E. O'Shea and Judy Westrick, Sources and Occurrence of Cyanotoxins Worldwide, In *Xenobiotics in the Urban Water Cycle*, Fatta-Kassinos, Bester, and Kümmerer (Eds.), Springer, USA.
- 22. <u>Maria G. Antoniou</u>, Armah, A. de la Cruz, Lionel Ho, Gayle Newcombe, Bala Rajasekhar, Virender Sharma, Miguel Pelaez, Changseok Han, Xuexiang He, Margarida Ribau Teixeira, Mike Dixon, Anastasia Hiskia, Triantafyllos Kaloudis, Theodoros Triantis, Weihua Song, Kevin O'Shea, and Dionysios D. Dionysiou. Book Chapter 2.9 Removal of algal cells and cyanotoxins by physical methods, *Comprehensive Water Quality and Purification*, Published by Elsevier 2013,pp 173-195.
- 23. Anastasia Hiskia, Theodoros M. Triantis, <u>Maria G. Antoniou</u>, Armah A. de la Cruz, Kevin O'Shea, Weihua Song, Theodora Fotiou, Triantafyllos Kaloudis, Xuexiang He, Joel Andersen and Dionysios D. Dionysiou, Transformation Products of Emerging Contaminants in the Environment: Analysis, Processes, Occurrence, Effects and Risks, First Edition. Edited by Dimitra A. Lambropoulou and Leo M. L. Nollet.# 2014 JohnWiley & Sons, Ltd. Published 2014 by JohnWiley & Sons, Ltd.
- 24. <u>Maria G. Antoniou</u>, Cen Zhao, Kevin E. O'Shea, Geshan Zhang, Dionysios D. Dionysiou, Chun Zhao, Changseok Han, Mallikarjuna N. Nadagouda, Hyeok Choi, Theodora Fotiou, Theodoros Triantis, and Anastasia Hiskia, Photocatalytic Degradation of Organic Contaminants in Water: Process optimization and degradation pathways, Photocatalysis: Applications. Edited by Dionysios D. Dionysiou, Junhua Ye,Jenny Scheider, Gianluca Li, Puma, Detlef W. Bahnemann. Published 2016 The Royal Society of Chemistry, energy and

Environment Series. DOI:10.1039/9781782627104-00001.

- 25. Theodora Fotiou, Theodoros Triantis, Anastasia Hiskia, Dariusz Dziga, Sylvain Merel, Christine Edwards, and <u>Maria G. Antoniou</u>, Transformation products (TPs) of cyanobacterial metabolites during treatment, Water Treatment for Purification from Cyanobacteria and Cyanotoxins, Edited by A. Hiskia, D. Dionysiou, M. G. Antoniou, T. Kaloudis, T. Triantis, Wiley (*accepted-pending publication*).
- 26. Mike B. Dixon, Lionel Ho, and <u>Maria G. Antoniou</u>, Removal of cyanobacteria and cyanotoxins by membrane processes, Water Treatment for Purification from Cyanobacteria and Cyanotoxins, Edited by A. Hiskia, D. Dionysiou, M. G. Antoniou, T. Kaloudis, T. Triantis, Wiley (*accepted-pending publication*).
- 27. Anastasia Hiskia, Dionysios D. Dionysiou, Triantafyllos Kalloudis, and <u>Maria G. Antoniou</u>, Current situation, research gaps, and future perspectives on the treatment of cyanobacteria, cyanotoxins, and taste and odor compounds., Water Treatment for Purification from Cyanobacteria and Cyanotoxins, Edited by A. Hiskia, D. Dionysiou, M. G. Antoniou, T. Kaloudis, T. Triantis, Wiley (*in preparation*).

# CONFERENCES

# A.ORGANIZING AND SCIENTIFIC COMMITTEE MEMBER & SESSIONS ORGANIZED OR CHAIRED

- 1. Scientific Committee Member of the IWA Regional Conference on Waste and Wastewater Management, Science and Technology (WWMST 2013), 26-28 June 2013, Limassol, Cyprus.
- 2. Chaired sessions at the following conferences: IWA Regional Conference on Wastewater Purification and Reuse, 28-30 March 2012; Waste and Wastewater Management, Science and Technology (WWMST 2013) Limassol, Cyprus; EAAOP4 Meeting, 21-24 October, 2015, Athens, Greece.

## **B. CONFERENCE PROCEEDINGS**

- 1. <u>Maria G. Antoniou</u>, Yongjun Chen and Dionysios D. Dionysiou, Advanced Water Purification: Towards Meeting NASA's Advanced Life Support Requirements. *Proceedings* of "Photocatalytic and Advanced Oxidation Processes for Treatment of Air, Water, Soil and Surfaces" D. F. Ollis and H. Al-Ekabi (Eds), University of Western Ontario Press, London, Ontario, Canada, 2004.
- 2. <u>Maria G. Antoniou</u> and Dionysios D. Dionysiou, Application of Immobilized Titanium Dioxide Photocatalysts for the Reclamation of Water from NASA's Spacecrafts Waste Streams. Proceedings of the 1<sup>st</sup> European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP), September 7-9, 2006, Chania, Greece.
- 3. Hyeok Choi, <u>Maria G. Antoniou</u>, Armah. A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou, Surfactant Templated Sol-Gel Synthesis of Mesoporous TiO<sub>2</sub> Photocatalysts and their Application in the Destruction of Cyanobacterial Toxins. Proceedings of the *Division of Environmental Chemistry, Symposium on Catalysis for Water Purification and Remediation, 232<sup>nd</sup> American Chemical Society (ACS) National Meeting*, September 10-14, 2006, San Francisco, California.
- 4. <u>Maria G. Antoniou</u>, Hyeok Choi, Armah. A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou, Application of Mesoporous TiO<sub>2</sub> Photocatalysts for the Degradation of

Microcystin-LR: The Degradation Pathway. Proceedings of the Symposium on Catalysis for Water Purification and Remediation, Division of Environmental Chemistry, 232<sup>nd</sup> American Chemical Society (ACS) National Meeting, September 10-14, 2006, San Francisco, California.

- 5. Hyeok Choi <u>Maria G. Antoniou</u>, Dionysios D. Dionysiou, Visible Light-Activated Mesoporous Titanium Dioxide Photocatalysts Synthesized via Sol-Gel Method Employing Nitrogen-Containing Surfactant Templates. Accepted for the Proceedings of 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.
- 6. Dionysios D. Dionysiou, <u>Maria G. Antoniou</u>, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker, Ultraviolet- and Solar Light-Activated Nanostructured TiO2 Photocatalysts: Application in the Destruction of Cyanotoxins, a Group of Emerging Drinking Water Contaminants. Accepted for the Proceedings of the Symposium on Catalytic Control of Emerging Micropollutants, Division of Environmental Chemistry, 233rd American Chemical Society National Meeting (ACS), March 25-29, 2007, Chicago, Illinois. (Keynote Presentation)
- 7. <u>Maria G. Antoniou</u> and Dionysios D. Dionysiou, Investigation of the Photocatalytic Degradation Pathway of Creatinine: Effect of pH. Proceedings in the *C. Ellen Gonter Environmental Chemistry Awards Session, Division of Environmental Chemistry, 234<sup>th</sup> American Chemical Society (ACS) National Meeting,* August 19-23, 2007, Boston, Massachusetts.
- 8. <u>Maria G. Antoniou</u>, Jody A. Shoemaker, A. de la Cruz, and Dionysios D. Dionysiou, LC/MS/MS structure elucidation of reaction intermediates formed during the TiO<sub>2</sub> photocatalysis of microcystin-LR., Proceedings in the Division of Environmental Chemistry, 235 American Chemical Society National Meeting (ACS), April 6-10, 2008, New Orleans, Louisiana
- 9. <u>Maria G. Antoniou</u>, 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), Proceedings in the 2008 American Water Works Association (AWWA) Annual Conference and Exposition (ACE), June 8-12, 2008, Atlanta, Georgia.
- 10. <u>Maria G. Antoniou</u>, Armah de la Cruz, Dionysios D. Dionysiou, Application of Immobilized Titanium Dioxide Photocatalysis for the Treatment of Microcystin-LR, In Cyanobacterial Harmful Algal Blooms: State of the Science and Research Needs, Chapter 14: Causes, Mitigation, and Prevention Workgroup Posters, pp. 291-292. In the series, Advances in Experimental Medicine and Biology, Volume 619, XXIV, 960 pages (Kenneth H. Hudnell, Ed.), Springer Press, Inc., March 21, 2008. ISBN: 978-0-387-75864-0.
- 11. <u>Maria G. Antoniou</u>, 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, Proceedings in the Division of Environmental Chemistry, 236 American Chemical Society National Meeting (ACS), August 17-20, 2008, Philadelphia, PA
- 12. P. Theodoulides, M. G. Antoniou, S. Fotiou, K. Tornaritou, P. Kolovopoulos, Asset management, water quality and leakage control of small water systems: the case of Nicosia Cyprus. Accepted for Oral presentation at the 3th IWA Specialized Conference on Small Water and Wastewater Systems &5th IWA Specialized Conference on Resources-Oriented Sanitation, September 14-16, 2016

#### C. PRESENTATIONS AND INVITED LECTURES (\* denotes presenter)

- 1. Hyeok Choi\*, <u>Maria Antoniou</u>, and Dionysios D. Dionysiou, The Potential of UV/TiO<sub>2</sub> 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, Chicago, Illinois, November 6, 2003.
- 2. <u>Maria G. Antoniou\*</u> 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.
- 3. <u>Maria G. Antoniou</u>\* 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)*, Toledo, Ohio, September 14-17, 2004.
- 4. Yongjun Chen, <u>Maria G. Antoniou</u> and Dionysios D. Dionysiou\*, Immobilization of nano-TiO<sub>2</sub> 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*<sub>2</sub> *Photocatalysis: Fundamentals and Applications (TiO*<sub>2</sub>-9), October 24-28, 2004, San Diego, California.
- 5. <u>Maria G. Antoniou</u> and Dionysios D. Dionysiou\*, Advanced Water Purification: Towards Meeting NASA's Advanced Life Support Requirements. Poster Presentation at *the 9th International Conference on TiO*<sub>2</sub> *Photocatalysis: Fundamentals and Applications (TiO*<sub>2</sub>-9), October 24-28, 2004, San Diego, California.
- 6. <u>Maria G. Antoniou</u>, Yongjun Chen, and Dionysios D. Dionysiou\*, Treatment of Space Wastewater Contaminants Using Highly Active TiO<sub>2</sub> 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.
- 7. <u>Maria G. Antoniou</u>\*, 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.
- 8. <u>Maria G. Antoniou\*</u>, Armah A. de la Cruz, and Dionysios D. Dionysiou, Fundamental Studies on the Degradation of Cyanobacterial Toxins by Sulfate Radicals. Poster Presentation at the 67<sup>th</sup> AWWA Ohio Section Annual Conference, September 19-22, 2005, Columbus, Ohio.
- 9. <u>Maria G. Antoniou\*</u>, 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
- 10. Hyeok Choi\*, <u>Maria G. Antoniou</u>, Armah A. de la Cruz and Dionysios D. Dionysiou, Development and Environmental Applications of TiO<sub>2</sub> Photocatalytic Membranes and Films. Poster Presentation at the *10th International Conference on TiO<sub>2</sub> Photocatalysis: Fundamental and Applications*, October 23-27, 2005, Chicago, IL, USA.

- 11. <u>Maria G. Antoniou</u>\*, 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, USA.
- 12. <u>Maria G. Antoniou</u>, Armah A. de la Cruz 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.
- 13. <u>Maria G. Antoniou</u>\*, 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.
- 14. Hyeok Choi\*, <u>Maria G. Antoniou</u> and Dionysios D. Dionysiou, Photocatalytic Destruction of Microcystin-LR Using N-Doped Mesoporous TiO<sub>2</sub> under Visible Light Irradiation. Poster Presentation at *The 2006 Ohio Nanotechnology Summit*, Poster M-4, April 4-5, 2006, Columbus, Ohio, USA.
- 15. <u>Maria G. Antoniou</u>, 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.
- 16. Hyeok Choi, <u>Maria G. Antoniou</u>, Armah. A. de la Cruz, and Dionysios D. Dionysiou\*, Nanostructured TiO<sub>2</sub> 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.
- 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<sub>2</sub> Photocatalytic Films. Poster Presentation at the *HPLC 2006 Conference*, June 17-23, 2006, San Francisco, California.
- 18. Hyeok Choi, <u>Maria G. Antoniou</u>, Dionysios D. Dionysiou\*, Synthesis of Nanostructured TiO<sub>2</sub> 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.
- 19. George P. Anipsitakis, <u>Maria G. Antoniou</u>, Armah A. de la Cruz, and Dionysios D. Dionysiou\*, Oxidation of Organic Contaminants Using Sulfate Radical-Based Advanced Oxidation Processes. Oral Presentation at the 1<sup>st</sup> European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP), September 7-9, 2006, Chania, Greece.
- 20. <u>Maria G. Antoniou</u>, Armah A. de la Cruz, and Dionysios D. Dionysiou\*, Destruction of Cyanotoxin-contaminated Water with Sulfate Radicals. Poster Presentation at the 1<sup>st</sup> European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP), September 7-9, 2006, Chania, Greece.

- 21. <u>Maria G. Antoniou</u>, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou\*, Photocatalytic Degradation of the Hepatotoxin Microcystin-LR with Mesoporous TiO<sub>2</sub> Thin Films. Poster Presentation at the 1<sup>st</sup> European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP), September 7-9, 2006, Chania, Greece.
- 22. <u>Maria G. Antoniou</u> 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 1<sup>st</sup> European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP), September 7-9, 2006, Chania, Greece.
- 23. Hyeok Choi\*, <u>Maria G. Antoniou</u>, Armah. A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou, Surfactant Templated Sol-Gel Synthesis of Mesoporous TiO<sub>2</sub> 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, 232<sup>nd</sup> American Chemical Society (ACS) National Meeting*, September 10-14, 2006, San Francisco, California.
- 24. <u>Maria G. Antoniou</u>\*, Hyeok Choi, Armah. A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou, Application of Mesoporous TiO<sub>2</sub> 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, 232<sup>nd</sup> American Chemical Society (ACS) National Meeting*, September 10-14, 2006, San Francisco, California.
- 25. <u>Maria G. Antoniou</u>, Hyeok Choi, Armah. A. de la Cruz, Jody Shoemaker and, Dionysios D. Dionysiou<sup>\*</sup>, Application of Photocatalytic Films for the Destruction of the Cyanotoxin Microcystin-LR: Reaction Intermediates. Oral Presentation at *The 11<sup>th</sup> International Conference on TiO<sub>2</sub> Photocatalysis: Fundamental and Applications*, Sept. 25-28, 2006, Pittsburgh, Pennsylvania.
- 26. Hyeok Choi\*, <u>Maria G. Antoniou</u>, Armah. A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou, Mesoporous TiO<sub>2</sub> Thin Films: Photocatalytic Destruction of Microcystin-LR. Poster Presentation at *The 11<sup>th</sup> International Conference on TiO<sub>2</sub> Photocatalysis: Fundamental and Applications*, Sept. 25-28, 2006, Pittsburgh, Pennsylvania.
- 27. <u>Maria G. Antoniou</u>, Armah. A. de la Cruz, and Dionysios D. Dionysiou\*, Detoxification of Cyanobacterial-contaminated Water with Sulfate Radicals. Poster Presentation at *The 12<sup>th</sup> International Conference on Advanced Oxidation Technologies for the Treatment of Water, Soil and Air*, Sept. 25-28, 2006, Pittsburgh, Pennsylvania.
- 28. <u>Maria G. Antoniou</u>\*, 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<sub>2</sub> Photocatalytic Films: Reaction Intermediates. Oral Presentation at *The 68<sup>th</sup> Ohio American Water Works Association (OAWWA) Annual Meeting*, October 10-13, 2006, Cleveland OH.
- 29. Dionysios D. Dionysiou\*, <u>Maria G. Antoniou</u>, 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, Gwangju, South Korea, November 3, 2006.

- 30. <u>Maria G. Antoniou</u>\*, 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
- 31. <u>Maria G. Antoniou</u>\*, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou, Application of Thin Nano-TiO<sub>2</sub> 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
- 32. <u>Maria G. Antoniou\*</u>, 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<sub>2</sub> photocatalysts: Reaction Intermediates, Poster Presentation at the 2007 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 2, 2007, Cincinnati, Ohio.
- 33. <u>Maria G. Antoniou</u>\*, Usha Nambiar and Dionysios D. Dionysiou, "Immobilized TiO<sub>2</sub> photocatalysts for the treatment of model organic contaminants found in NASA's wastestreams: Parametric study and Intermediates" Oral Presentation in the 37th Mid-Atlantic Industrial & Hazardous Waste Conference, University of Cincinnati, March 21-23 2007, Cincinnati, Ohio.
- 34. Dionysios D. Dionysiou\*, <u>Maria G. Antoniou</u>, Hyeok Choi, Armah A. de la Cruz, and Jody A. Shoemaker, Ultraviolet- and Solar Light-Activated Nanostructured TiO2 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), March 25-29, 2007, Chicago, Illinois.
- 35. <u>Maria G. Antoniou\*</u>, Usha Nambiar and Dionysios D. Dionysiou, "Application of immobilized TiO<sub>2</sub> photocatalysts for the on-board treatment of NASA's wastestreams" Accepted for Poster Presentation, in the Division of Industrial and Engineering Chemistry, 233rd American Chemical Society National Meeting (ACS), March 25-29, 2007, Chicago, Illinois.
- 36. Hyeok Choi\*, <u>Maria G. Antoniou</u>, Dionysios D. Dionysiou, Visible Light-Activated Mesoporous Titanium Dioxide Photocatalysts Synthesized via Sol-Gel Method Employing Nitrogen-Containing Surfactant Templates. Accepted for 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.
- 37. Hyeok Choi\*, <u>Maria G. Antoniou</u>, Miguel Pelaez, Armah A. de la Cruz, and Dionysios D. Dionysiou, Visible light activated nitrogen-doped TiO<sub>2</sub> nanostructured photocatalysts: Synthesis and Environmental Applications, Poster Presentation at the 2007 Ohio Nanotechnology Summit, April 24-25, 2007, Akron, OH.
- 38. <u>Maria G. Antoniou</u>\*, Hyeok Choi, Armah A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou, Detoxification of Cyanobacterial Toxin-contaminated Water Using TiO<sub>2</sub> Photocatalytic Films. Poster Presentation at the 2007 Ohio Nanotechnology Summit, April 24-25, 2007, Akron, OH.

- 39. Dionysios D. Dionysiou\*, <u>Maria G. Antoniou</u>, 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.
- 40. <u>Maria G. Antoniou</u>\*, 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 KY.
- 41. <u>Maria G. Antoniou</u>\*, 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<sub>2</sub> Photocatalytic Films: Reaction Intermediates Poster Presentation at the 2007 Annual Conference and Exposition (ACE), June 24-28, 2007, Toronto, Canada.
- 42. <u>Maria G. Antoniou</u>, Hyeok Choi, Miguel Pelaez, Armah. A. de la Cruz, Jody A. Shoemaker and Dionysios D. Dionysiou\*, Visible Light Activated Nitrogen-Doped TiO<sub>2</sub> 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, The Robert Gordon University, Aberdeen, Scotland.
- 43. <u>Maria G. Antoniou</u><sup>\*</sup> 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, 234<sup>th</sup> American Chemical Society (ACS) National Meeting, August 19-23, Boston, Massachusetts.*
- 44. <u>Maria G. Antoniou</u>\*, 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<sub>2</sub> Photocatalytic Films: Reaction Intermediates Poster Presentation at *The* 68<sup>th</sup> Ohio American Water Works Association (OAWWA) Annual Meeting, September 18-21, 2007, Cincinnati OH.
- 45. Hyeok Choi, <u>Maria G. Antoniou</u>, Miguel Pelaez, Armah A. de la Cruz, and Dionysios D. Dionysiou<sup>\*</sup>, Synthesis of N-TiO<sub>2</sub> using surfactant and evaluation for the destruction of microcystin-LR, Poster Presentation at the 12th International Conference on TiO<sub>2</sub> Photocatalysis: Fundamental and Applications, Sept. 24-27, 2007, Niagara Falls, NY.
- 46. <u>Maria G. Antoniou</u>, Usha Nambiar and Dionysios D. Dionysiou<sup>\*</sup>, "Mechanistic studies on the identification of the intermediates of Creatinine with TiO<sub>2</sub> photocatalysts: Effect of pH" Poster Presentation, at the 12th International Conference on TiO<sub>2</sub> Photocatalysis: Fundamental and Applications, Sept. 24-27, 2007, Niagara Falls, NY.
- 47. <u>Maria G. Antoniou\*</u>, Usha Nambiar and Dionysios D. Dionysiou, "Mechanistic studies on the identification of the intermediates of Creatinine with TiO<sub>2</sub> photocatalysts: Effect of pH" Poster Presentation, at the 2007 Ralph and Helen Oesper Symposium, University of Cincinnati, October 19-20, 2007
- 48. Dionysios D. Dionysiou\* and <u>Maria G. Antoniou</u>, 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.

- 49. Elias Stathatos\*, Katerina Pelentridou, Panagiotis Lianos, <u>Maria G. Antoniou</u>, Qiujing Yang, Th. Dalkarani and Dionysios D. Dionysiou, Photocatalytic Oxidation of Water Soluble Herbicides in the Presence of Nanocrystalline TiO<sub>2</sub> 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.
- 50. <u>Maria G. Antoniou\*</u>, Jody A. Shoemaker, A. de la Cruz, and Dionysios D. Dionysiou, Treating the new generation of drinking water contaminants, the cyanotoxins, with TiO<sub>2</sub> photocatalysis: Degradation pathways, Poster Presentation at the 2008 Graduate Student Research/Scholarship Forum of the University of Cincinnati, March 7, 2008, Cincinnati, Ohio.
- 51. <u>Maria G. Antoniou</u>\*, Jody A. Shoemaker, A. de la Cruz, and Dionysios D. Dionysiou, LC/MS/MS structure elucidation of reaction intermediates formed during the TiO<sub>2</sub> photocatalysis of microcystin-LR., Poster Presentation, in the Division of Environmental Chemistry, 235 American Chemical Society National Meeting (ACS), April 6-10, 2008, New Orleans, Louisiana
- 52. <u>Maria G. Antoniou</u>\*, 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), accepted for Oral Presentation at the 2008 American Water Works Association (AWWA) Annual Conference and Exposition (ACE), June 8-12, 2008, Atlanta, Georgia.
- 53. <u>Maria G. Antoniou</u>, Jody A. Shoemaker, A. de la Cruz, and Dionysios D. Dionysiou\*, Treating the new generation of drinking water contaminants, the cyanotoxins, with TiO<sub>2</sub> photocatalysis: Degradation pathways, Accepted for Poster Presentation at the 1st International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N), June 16-18, Halkidiki, Greece.
- 54. <u>Maria G. Antoniou</u>\*, 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 Poster Presentation, in the Division of Environmental Chemistry, 236 American Chemical Society National Meeting (ACS), August 17-20, 2008, Philadelphia, PA
- 55. <u>Maria G. Antoniou</u>, Jody A. Shoemaker, Armah A. de la Cruz, and Dionysios D. Dionysiou<sup>\*</sup>, Utilization of Mass Spectrometry for the Identification of Reaction Intermediates Formed During the Photocatalytic Degradation of the Cyanotoxins Microcystin-LR and Cylindrospermopsin. Submitted for Poster Presentation at the International Conference on 25 Years of TiO<sub>2</sub> Photocatalysis-Retrospective and Prospective Views and the 13<sup>th</sup> International Conference on TiO<sub>2</sub> Photocatalysis: Fundamentals and Applications (TiO<sub>2</sub>-13), September 22-25, 2008, San Diego, California.
- 56. <u>Maria G. Antoniou</u>, A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou\*, LC/MS/MS structure elucidation of reaction intermediates formed during the TiO<sub>2</sub> photocatalysis of microcystin-LR, Poster Presentation, in the 5th European Meeting on Solar Chemistry and Photocatalysis: Environmental Application, (SPEA 5), 4-8 October 2008, Sicily, Italy

- 57. <u>Maria G. Antoniou</u>, Miguel Pelaez, Jody A. Shoemaker, Persoulla A. Nicolaou, Armah A. de la Cruz and Dionysios D. Dionysiou<sup>\*</sup>, TiO<sub>2</sub> Films for UV and Visible Light-activated Photocatalysis: Environmental Application in the destruction of Microcystin-LR, Oral Presentation, in the 5th European Meeting on Solar Chemistry and Photocatalysis: Environmental Application, (SPEA 5), 4-8 October 2008, Sicily, Italy
- 58. <u>Maria G. Antoniou</u>\*, Miguel Pelaez, Jody A. Shoemaker, Persoulla A. Nicolaou, Armah A. de la Cruz and Dionysios D. Dionysiou\*, TiO<sub>2</sub> photocatalysis: i) Mechanistic steps of the photocatalytic oxidation of microcystin-LR; ii) Application of solar light activated photocatalysts, Invited Oral presentation at the EPA Symposium and to the WQTC special session, November 18, 2008, Cincinnati, Ohio
- 59. <u>Maria G. Antoniou</u>, Persoulla A. Nicolaou, Armah. A. de la Cruz, and Dionysios D. Dionysiou<sup>\*</sup>, Detoxification of water contaminated with the cyanotoxin, microcystin-LR, by utilizing thin TiO<sub>2</sub> photocatalytic films, Oral Presentation in the XENOWAC 2009 Conference, 13-15 March 2009, Paphos Cyprus
- 60. <u>Maria G. Antoniou\*</u>, 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<sub>2</sub> films: Reaction Intermediates, Oral Presentation in the XENOWAC 2009 Conference, 13-15 March 2009, Paphos Cyprus
- 61. <u>Maria G. Antoniou</u>, 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<sub>2</sub> photocatalytic films, Oral Presentation in the Division of Environmental Chemistry, 237 American Chemical Society National Meeting (ACS), 22-26 March 2009, Utah.
- 62. <u>Maria G. Antoniou</u>, Jody A. Shoemaker, Persoulla A. Nicolaou, Armah. A. de la Cruz, and Dionysios D. Dionysiou\*, Treating water contaminated with cyanotoxins, Invited Oral Presentation in the Division of Environmental Chemistry, 237 American Chemical Society National Meeting (ACS), 22-26 March 2009, Utah.
- 63. <u>Maria G. Antoniou\*</u>, Persoulla A. Nicolaou, Jody A. Shoemaker, Armah de la Cruz, and Dionysios D. Dionysiou, Destruction of Cyanotoxins and Human Metabolites by Advanced Oxidation Technologies, Invited Presentation at the GCWW Advisory Committee Meeting, 29<sup>th</sup> May 2009, University of Cincinnati
- 64. Miguel Pelaez, <u>Maria G. Antoniou</u>, Jody A. Shoemaker, Armah de la Cruz, and Dionysios D. Dionysiou\*, Development and Environmental Application of TiO<sub>2</sub> Photo-assisted Processes for Water Purification: Degradation of Cyanobacterial Toxins. Oral Presentation at the 12<sup>th</sup> International Conference on Chemistry and the Environment (ICCE), June 2009, Stockholm, Sweden
- 65. <u>Maria G. Antoniou</u>, Persoulla A. Nicolaou, Miguel Pelaez , Jody A. Shoemaker, Armah de la Cruz, and Dionysios D. Dionysiou\*, Environmentally friendly nanotechnologies for the treatment of cyanobacterial contaminated water: Application, Reaction intermediates, Toxicity studies, Oral Presentation at the Energy and the Environment Today", June 2009, Belgrade, Serbia
- 66. Miguel Pelaez\*, <u>Maria G. Antoniou</u>, Jody A. Shoemaker, Persoulla A. Nicolaou, Armah de la Cruz, and Dionysios D. Dionysiou, UV and visible photoactivated TiO<sub>2</sub> films for the degradation of microcystin-LR in water. Oral Presentation at the 2nd International Conference *from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems* (IC4N), Rhodes, Greece, June 28-July 3, 2009

- 67. <u>Maria G. Antoniou\*</u>, Persoulla A. Nicolaou, Armah. A. de la Cruz, Hyeok Choi, Elias Stathatos, and Dionysios D. Dionysiou, Detoxification of water contaminated with the cyanotoxin, microcystin-LR, by utilizing thin TiO<sub>2</sub> photocatalytic films, Accepted Oral Presentation in the Association of Environmental Engineering and Science Professors (AEESP) Conference, University of Iowa, July 26-29, 2009.
- 68. <u>Maria G. Antoniou</u>, 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 in the Division of Environmental Chemistry, 238 American Chemical Society National Meeting (ACS),16-20 August 2009, Washington, D.C.
- 69. <u>Maria G. Antoniou</u>, 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 Radicals Advanced Oxidation Technologies, Invited Oral Presentation at the 2<sup>nd</sup> *European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP2)*, September 7-9, 2009, Nicosia, Cyprus
- 70. <u>Maria G. Antoniou</u>, Armah. A. de la Cruz, and Dionysios D. Dionysiou\*, Application of Sulfate Radicals- based Advanced Oxidation Technologies (SR-AOTs) for the degradation of microcystin-LR, Accepted for Oral Presentation at the 1<sup>st</sup> International Workshop on Application of Redox Technologies in the Environment (ARTE), 14-15 September, Istanbul, Turkey
- 71. <u>Maria G. Antoniou</u>, 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, Oral Presentation at the 14<sup>th</sup> International Conference on TiO<sub>2</sub> Photocatalysis: Fundamental and Applications, October 2009.
- 72. <u>Maria G. Antoniou\*</u>, Persoulla A. Nicolaou, Armah. A. de la Cruz, and Dionysios D. Dionysiou, Application of TiO<sub>2</sub> photocatalytic films for the degradation of the cyanotoxin, microcystin-LR: Reaction Intermediates and Toxicity Studies, Oral Presentation in the RG Water Supply Engineering 2009 Meeting 2nd December, 2009, DTU, Denmark
- 73. <u>Maria G. Antoniou</u>, Armah. A. de la Cruz, and Dionysios D. Dionysiou\*, Degradation and reaction intermediates of microcystin-LR with sulfate radicals advanced oxidation technologies, Oral Presentation at the 6th European Meeting on Solar Chemistry and Photocatalysis: Environmental Application, (SPEA 6), 13-16 June 2010, Prague, Czech Republic
- 74. <u>Maria G. Antoniou</u>, Armah. A. de la Cruz, and Dionysios D. Dionysiou Intermediates and Reaction Pathways from the Degradation of Microcystin-LR with Sulfate Radicals, Oral Presentation at the Environmental and Green Chemistry, Session Free Radical Chemistry in the Environment, Pacifichem 2010, December 15-20, 2010, Honolulu, Hawaii, USA.
- 75. <u>Maria G. Antoniou</u>, 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 at the Environmental and Green Chemistry, Session Free Radical Chemistry in the Environment, Pacifichem 2010, December 15-20, 2010, Honolulu, Hawaii, USA.

- 76. <u>Maria G. Antoniou\*</u>, Per Falas, Gerly Moradas, Jerker Fick, Mats Tysklind, Anna Ledin, Jes La Cour Jansen, and Henrik Rasmus Andersen, Required ozone doses for controlling pharmaceuticals in Swedish WWTP Effluents, Short Presentation at the 2011 Joint World Congress & Exhibition, 20<sup>th</sup> IOA World Congress, May 23-27, 2011, Paris, France.
- 77. Maritha Hörsing, <u>Maria G. Antoniou</u>, Sara Furuhagen, Anna Ledin, Magnus Breitholtz, and Henrik Rasmus Andersen\*, Identification of ecotoxicity caused by O3 and ClO<sub>2</sub> treatment of wastewater, Short Presentation at the 2011 Joint World Congress & Exhibition, 20<sup>th</sup> IOA World Congress, May 23-27, 2011, Paris, France
- 78. <u>Maria G. Antoniou</u>, Cosima Sichel\* and Henrik R. Anderesen, Reduction of Bromate Formation During Ozonation of Drinking Water, Accepted for Poster Presentation at the Water Convention 2011, International Water Week, July 4-8, 2011, Singapore, Republic of Singapore.
- 79. <u>Maria. G. Antoniou\*</u>, and Henrik R. Andersen. Pre-treatments to control bromate formation during ozonation., Oral Presentation at the IWA Regional Conference on Wastewater Purification and Reuse, 28-30 March 2012, Heraklion, Crete, Greece.
- 80. <u>Maria. G. Antoniou</u>\*, Gerly Hey, Aikaterini Spiliotopoulou, Sergio Rodríguez-Vega, Jerken Fick, Mats Tysklind, Anna Ledin, Jes la Cour Jansen, and Henrik R. Andersen, Decadic Delivered O<sub>3</sub> doses of 50 APIs from WWTP effluents, Poster Presentation at the IWA Regional Conference on Wastewater Purification and Reuse, 28-30 March 2012, Heraklion, Crete, Greece.
- 81. Joel Andersen, Xuexiang He, <u>Maria G. Antoniou</u>, Miguel Pelaez, Dionysios D. Dionysiou\*. Overview of the remediation of cyanotoxins from water using physicochemical processes. Poster presentation at the 244<sup>th</sup> ACS Conference. August 19-23, 2012. Philadelphia, PA, USA.
- 82. <u>Maria. G. Antoniou\*</u>, Gerly Hey, Sergio Rodríguez Vega, Aikaterini Spiliotopoulou, Jerker Fick, Mats Tysklind, Anna Ledin, Jes la Cour Jansen, and Henrik R. Andersen. Required Ozone doses for achieving 90% removal of pharmaceuticals from Swedish WWTP effluents, Oral Presentation at the WASTEWATER REUSE APPLICATIONS AND CONTAMINANTS OF EMERGING CONCERN, 13-14 September 2012, Columbia Beach Hotel, Pissouri - Limassol, Cyprus.
- 83. <u>Maria G. Antoniou</u>, Armah A. de la Cruz, Jody A. Shoemaker, and Dionysios D. Dionysiou. Detoxification of water contaminated with the cyanotoxin microcystin-LR by Advanced Oxidation Technologies (AOTs). Poster Presentation at the 3<sup>rd</sup> CYANOCOST Meeting, 24-26 April 2013, Gdansk, Poland.
- 84. <u>Maria. G. Antoniou</u>, Gerly Hey, Sergio Rodríguez Vega, Aikaterini Spiliotopoulou, Jerker Fick, Mats Tysklind, Anna Ledin, Jes la Cour Jansen, and Henrik R. Andersen. Required ozone doses for removing pharmaceuticals from wastewater effluents, Accepted for Oral Presentation at the 8<sup>th</sup> Micropol & Ecohazard 2013, June 16-20, 2013, Zurich, Switzerland.
- 85. Arvaniti S. Olga, Evangelos C. Symsaris, Andersen R. Henrik, <u>Maria G. Antoniou</u>, Thomaidis S. Nikolaos and Stasinakis S. Athanasios, Removal of perfluorinated compounds from water using advanced treatment processes, Accepted for Oral Presentation at the 8<sup>th</sup> Micropol & Ecohazard 2013, June 16-20, 2013, Zurich, Switzerland.
- 86. <u>Maria. G. Antoniou\*</u>, Gerly Hey, Sergio Rodríguez Vega, Aikaterini Spiliotopoulou, Jerker Fick, Mats Tysklind, Anna Ledin, Jes la Cour Jansen, and Henrik R. Andersen. Required

ozone doses for removing pharmaceuticals from wastewater effluents, Accepted for Oral Presentation at the IWA Regional Conference on Waste and Wastewater Management, Science and Technology (WWMST 2013), 26-28 June 2013, Limassol, Cyprus.

- 87. <u>Maria. G. Antoniou\*</u>, Gerly Hey, Sergio Rodríguez Vega, Aikaterini Spiliotopoulou, Jerker Fick, Mats Tysklind, Anna Ledin, Jes la Cour Jansen, and Henrik R. Andersen. Required ozone doses for removing pharmaceuticals from wastewater effluents, Poster Presentation at the International Conference WIN4Life, 19-21 September 2013, Tinos Island, Greece.
- 88. <u>Maria G. Antoniou</u>, Theodora Fotiou, Sevasti Zervou, Theodoros Triantis, Triantafyllos Kaloudis, Anastasia Hiskia. Evaluation of the efficiency of Advanced Oxidation Processes (AOPs) for the removal of various microcystins (MCs) under realistic conditions. Poster Presentation at the 4<sup>th</sup> CYANOCOST Meeting, 12-15 November, 2013 Bulgaria, Sofia.
- 89. <u>Maria. G. Antoniou\*</u>, Gerly Hey, Sergio Rodríguez Vega, Aikaterini Spiliotopoulou, Jerker Fick, Mats Tysklind, Anna Ledin, Jes la Cour Jansen, and Henrik R. Andersen. Required ozone doses for removing pharmaceuticals from wastewater effluents, Poster Presentation at 1<sup>st</sup> Pancyprian conference on Environmental Outlook: Cyprus 2014, May 28<sup>th</sup>, 2014, Cyprus University of Technology, Lemesos, Cyprus.
- 90. Hans C.P. Matthijs\*, <u>Maria G. Antoniou</u>, Luc Brient, Christine Edwards, Fatma Gurbuz, Iwona Jasser, Latife Koker, Veerle Luimstra, Jussi Meriluoto, Merijn Schuurmans, Jelica Simeunovic, Elena Stoica, Zorica Svircev, Gabor Vasas, Petra M. Visser, Irma Vitonyte, Erik Weenink. Setting out for selective mitigation of cyanobacteria with hydrogen peroxide (HP) in a range of lakes across Europe. Oral presentation March 4<sup>th</sup>, 2015 ASLO Meeting, Granada, Spain.
- 91. <u>Maria G. Antoniou</u>\*, Iosef Boraei, Constantina M. Kyriakou, Mahalakshmi Abhishek, Christine Edwards, Linda A. Lawton. Enhancing photocatalytic degradation of cyanotoxins with the addition of sulfate-radical producing oxidants. Poster Presentation at the EAAOP4 Meeting, 21-24 October, 2015, Athens, Greece.
- 92. Nikoletta Tsiarta, Sergio Rodriguez, Aurora Santos, and <u>Maria G. Antoniou</u>\*. Removal of emerging contaminants from water via peroxymonosulfate activation with various iron sources (Fe<sup>+2</sup>, Fe<sup>+3</sup>, ZVI). Poster Presentation at the EAAOP4 Meeting, 21-24 October, 2015, Athens, Greece.
- 93. M. Samanis, S. Fotiou, M. Hadfield, A. Chrysargyris, N. Tzortzakis, and <u>M. G. Antoniou</u>\*. Removal of cyanobacterial scum from surface waters with a tangential flow separator. Accepted for Poster Presentation at the 4<sup>th</sup> International Conference on Sustainable Solid Waste Management, June 23-25, 2016, Limassol, Cyprus.
- 94. P. Theodoulides, M. G. Antoniou, S. Fotiou, K. Tornaritou, P. Kolovopoulos, Asset management, water quality and leakage control of small water systems: the case of Nicosia Cyprus. Accepted for Oral presentation at the 3th IWA Specialized Conference on Small Water and Wastewater Systems &5th IWA Specialized Conference on Resources-Oriented Sanitation, September 14-16, 2016

## INVITED TALKS FOR SEMINARS AND THE GENERAL PUBLIC (IN GREEK)

- "Ξενοβιοτικές ουσίες και καθαρισμός νερού" Ομιλία κατόπιν προσκλήσεως στη Συνάντηση Καθηγητών Χημείας Επαρχίας Πάφου, Λύκειο Εθνάρχη Μακαρίου Γ´ 21/02/2014.
- 2. "Ξενοβιοτικές ουσίες και καθαρισμός νερού" Ομιλία κατόπιν προσκλήσεως στη Συνάντηση

Καθηγητών Χημείας Επαρχίας Λεμεσού, Λύκειο Λινόπετρας Λεμεσού 25/02/2014.

- 3. «Τρόποι μείωσης της ολικής τοξικότητας που προκαλεί η παρουσία χλωριωμένης οργανικής ύλης στις πισίνες», παρουσίαση στην Ημερίδα που διοργανώνει το Διεθνές Ινστιτούτο Κύπρου για την Περιβαλλοντική και Δημόσια Υγεία (CII) σε συνεργασία με τη Σχολή Δημόσιας Υγείας του Πανεπιστημίου του Χάρβαρντ, υπό την αιγίδα του Τεχνολογικού Πανεπιστημίου Κύπρου και ο Αναπτυξιακός Οργανισμός ΤΑΛΩΣ με θέμα «Εμφιαλωμένο και Πόσιμο Νερό: Ποιότητα και Διαχείριση», Ευρωπαϊκό Πανεπιστήμιο Κύπρου, 16/12/2015.
- 4. Τρόποι μείωσης της ολικής τοξικότητας που προκαλεί η παρουσία χλωριωμένης οργανικής ύλης στις πισίνες», παρουσίαση στο 1° Ετήσιο Συνεδρίο Χημείας στην Εκπαίδευση. Τεχνολογικό Πανεπιστήμιο Κύπρου (Κτήριο "Τάσσος Παπαδόπουλος" Αμφιθέατρο 1), το Σάββατο, 13 Φεβρουαρίου 2016.