

# CURRICULUM VITAE

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## **Chunlong (Carl) Zhang, Ph.D., P.E.**

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### **EDUCATION**

#### **Ph.D., Environmental Engineering, 1993 – 1997**

Department of Civil and Environmental Engineering, Louisiana State University,  
Baton Rouge, Louisiana.

#### **M.S., Environmental Chemistry, 1983 – 1986**

Department of Environmental Sciences, Zhejiang University, P.R. China.

#### **B.S., Environmental Science, 1979 – 1983**

Department of Environmental Sciences, Zhejiang University, P.R. China.

### **ACADEMIC EMPLOYMENT**

- September 2009 – : Professor, University of Houston-Clear Lake, Houston
- 2005 – 2009: Associate Professor, University of Houston-Clear Lake, Houston
- 2000 – 2005: Assistant Professor, University of Houston-Clear Lake, Houston
- 1998 – 2000: Postdoctoral Research Fellow, Rice University, Houston, Texas
- 1997 – 1998: Postdoctoral Research Fellow, Hazardous Waste Research Center (HWRC), Louisiana State University, Baton Rouge, Louisiana
- 1993 – 1997: Research Assistant, Louisiana State University, Baton Rouge, LA
- 1991 – 1993: Research Assistant, Virginia Tech, Blacksburg, VA
- 1986 – 1991: Assistant Professor (Equivalent), Division of Environmental Chemistry, Zhejiang University, Hangzhou, People's Republic of China
- 1983 – 1986: Research and Teaching Assistant, Department of Environmental Science, Zhejiang University, Hangzhou, People's Republic of China

### **HONORS / AWARDS**

- President's Distinguished Research award recipient, 2013.
- Si Yuan Chair Professor, Zhejiang University, Hangzhou, China, 2012-present.
- University Faculty Fellowship, University of Houston-Clear Lake, 2011-2012.
- University of Houston – Clear Lake, 15 Years Service Award (2000-2015), 2016.

- Adjunct Professor, Zhejiang University, 2011 – 2012.
- Keynote Speaker: 36<sup>th</sup> International Symposium on Environmental and Analytical Chemistry, Rome, Italy, October 05–09, 2010.
- Advisory Board on the Scientific Committee, International Conference on Environmental Pollution and Remediation (ICEPR), Rome, Italy (2017)
- Editorial Board, *The Scientific World Journal*, 2011-present.
- Editorial Board: *Water, Air, and Soil Pollution*, 2010-present
- Editorial Board: *Environmental Toxicology and Chemistry*, 2006-2008.
- Water, Air & Soil Pollution (WATE) Top 25 Reviewers, Excellence in Reviewing Award in 2016.
- Standard Method Committee, Examination of Water and Wastewater, Standard Method committee, 22<sup>nd</sup>, 23<sup>rd</sup> edition, American Water Works Association.
- Proposal Review Panel for National Science Foundation (NSF), 2006-2007, 2008; NSF / USDA (2006-2007); Strategic Environmental Research and Development Program (SERDP) –A Consortium of U.S. Environmental Protection Agency (EPA), Department of Defense (DoD), and Department of Energy (DoE), 2005-2006, 2008, 2011, 2014; U.S. Geological Survey (USGS) and National Institutes for Water Resources (NIWR) National Competitive Grants Program, 2002-present; Institute for Space Systems Operations (ISSO), 2005, 2010. Proposal review panel: LSU BP Gulf Research Initiative (GRI), 2011, Mississippi-Alabama Sea Grant, Israeli Ministry of Science, Technology and Space, Singapore National Research Foundation; Member of the scientific committee on the 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> International Conference on Environmental Pollution and Remediation (ICEPR)
- Nominee, President’s Distinguished Teaching Award, University of Houston-Clear Lake, 2005, 2006.
- Piper Award nominee, 2011.
- Exceptional Leadership and Commitment in Teaching Environmental Science, awarded by Texas Commission on Environmental Quality (TCEQ), 2004.
- Advisory Board, Environmental Institute of Houston (EIH), 2006 – present.
- Marquis Who's Who in American, 57<sup>th</sup> Edition, 2003.
- International Who’s Who of Professional Educators, 2003-2004.
- Madison Who’s Who of Professionals, 2004-2005, 2006-2007.
- Award for the Outstanding Dissertation in the Field of Engineering and Physical Sciences, The Universities Council on Water Resources (UCOWR), Inc., 1997.
- John Lee Pratt Fellowship, Virginia Tech, 1991, 1992, 1993.
- Excellent Paper Award, Zhejiang Science and Technology Association, 1989.
- Excellent Paper Award, Zhejiang Environmental Science Association, 1987.

## **REGISTRATION / CERTIFICATION / PROFESSIONAL ASSOCIATIONS**

- Registered Professional Engineer (Environmental Engineer), State of Louisiana, Registration No. 33659
- Waste Site Management – HAZWOPER Training in accordance with 29 CFR 1910.120 (May 1995)
- Association of Environmental Engineering and Science Professors (AEESP)

- American Chemical Society (ACS)-Division of Environmental Chemistry
- Society of Environmental Toxicology and Chemistry (SETAC)
- National Society of Professional Engineers (NSPE)
- The Louisiana Engineering Society (LES)

## RESEARCH INTEREST

**General Research Interest:** Environmental sampling and analysis; Environmental chemistry; Environmental remediation; Fate, transport, and remediation of organic chemicals and heavy metals in soil, groundwater, and sediment.

**Research Projects:** Sustainable remediation; Analysis of emerging contaminants (endocrine disrupting chemicals; bromate); Biodegradation of surfactants, explosives chemicals, pharmaceutical and endocrine disrupting compounds; Sorption of polycyclic aromatic hydrocarbons, explosives and endocrine disrupting compounds in soil and sediment; Effects of surfactants on air-water partition of chlorinated solvents; Zero-valent iron for the remediation of chromium contaminated soil and sediment.

## INDUSTRIAL & CONSULTING EXPERIENCE

**HydroGeoLogic, Inc., Proposal Reviewer Panel, 2005, 2008, 2011, 2014:** Reviewed 30 proposals (\$26 millions dollars) in the field of fate and transport of munitions constituents in operational ranges. Provided funding recommendations to Strategic Environmental Research and Development Program (SERDP) – a consortium of USEPA, DoD and DoE.

**Rice University, Houston, TX, Research Consultant, 6/01 to 9/01 & 06/02 to 09/02:** Supervised Ph.D. graduate students and provided technical consultation in two research projects: "Aerobic dinitrotoluene bioremediation in vadose zone soils" (funded by Strategic Environmental Research and Development Program, SERDP) and "Reactive capping using elemental iron to enhance reductive processes in Anacostia River sediments" (funded by the U.S. EPA Hazardous Substance Research Center).

**Tyndall Air Force Base, Applied Research Inc., Armstrong Laboratory, Environmental Engineer Consultant, Panama City, FL, 2/99 to 6/99:** Principal investigator in conducting pilot-scale treatability study on the bioremediation of explosives compounds in contaminated soils from two former army ammunition plants (Volunteer Army Ammunition Plant and Badger Army Ammunition Plant).

**Zhejiang Environmental Engineering Company, China, Environmental Engineer, 9/86 to 4/91:** Supervised field sampling and lab analysis of 22 water quality parameters for numerous sites in China. Analyzed data and prepared 10 Environmental Impact Statements (EIS) reports for permit applications of various industrial clients including iron and steel, pulp and paper, chemical fertilizer and pharmaceutical industries. Developed methods for the quality assessment of surface water (Fuzzy method) and air (dispersion modeling).

## ACADEMIC EXPERIENCE

**University of Houston – Clear Lake**, Houston, TX, *Professor* (09/2009-), *Associate Professor* (09/05-08/09); Assistant Professor (08/00-08/05), College of Science and Engineering; *Program Chair of Environmental Science* (since 01/05). Coordinator and faculty advisor of Environmental Chemistry Program. The Environmental Science Program consists of 10 full-time faculty members and offers BS and MS degrees in environmental science with 5 specializations, i.e., environmental biology, environmental chemistry, environmental geology, industrial hygiene, and safety. Served as Lab Manager of Advanced Science Instrument Lab (ASIL) which hosts LC-MS-TOF, LC-MS, GC-MS, IC, and ICP.

**Rice University**, Houston, TX, 3/98 to 07/00

*Postdoctoral Research Associate, Dept. of Civil and Environmental Engineering*  
Coordinated a \$1.9 million DoD funded project “A Coupled Evaluation of Biotransformation Pathways and Toxicity for Explosives in Remediation Systems or the Natural Environment” ; Studied the biotransformation of 2,4-dinitrotoluene, 2,6-dinitrotoluene and RDX; Assisted in the guidance of graduate student research projects; Oversaw progress in other departments at Rice (Bioengineering, Biochemistry) and other universities (Baylor College of Medicine, Alabama A&M University), and responsible for writing quarterly and annual progress reports to the Department of Defense; Managed maintenance and operation of instruments including HPLC and LC-MS.

**Louisiana State University**, Baton Rouge, LA, 8/93 to 3/98

*Postdoctoral Research Associate, Hazardous Waste Research Center (HWRC)*  
*Research Assistant, Department of Civil and Environmental Engineering*  
Wrote proposals on the biodegradation and bioavailability of sorbed-phase chlorinated hydrocarbons in soils (Co-PI with Drs. Constant, Valsaraj and Kommalapati). Participated in surfactant-enhanced soil washing experiment; Developed protocols for the analyses of volatile chlorinated hydrocarbons using purge-and-trap GC-MS method. Designed and fabricated bench-scale apparatus, and conducted wastewater treatment feasibility study using an innovative flotation technology. Developed a mathematical model for the mass transfer of gas aphyrons during extraction/flotation process. Participated in a field-scale bioremediation project for a local Petro Processors Inc. Superfund site.

**Virginia Tech**, Blacksburg, VA, 5/91 to 8/93

*Research Assistant, Department of Crop & Soil Environmental Sciences*  
Conducted studies on nutrient cycling, land application of agricultural wastes, and nitrate leaching to groundwater in a farm-scale ecosystem of a project sponsored by the U.S. Department of Agriculture.

**Zhejiang University**, China, 9/86 to 4/91

*Assistant Professor, Department of Chemistry, Environmental Chemistry Division*

Associate Chair of Environmental Chemistry Division; Set up QA/QC program and created an environmental service program which was certified by Zhejiang Environmental Protection Agency. Raised funds from local industries. Guided undergraduate theses on speciation of heavy metals, and biodegradation of phenol and cyanide. Courses developed and taught: Introduction to Environmental Sciences, Environmental Impact Assessment, Environmental Monitoring.

**Zhejiang University, China, 5/83 to 8/86**

*Research / Teaching Assistant, Department of Environmental Sciences*

Performed thesis studies on fate and transport of chromium in soils and its phytotoxicity using soil and pot experiments. Developed a GC-FID method to analyze nitrogenase activity. Instructed an environmental monitoring lab class. Participated in a nation funded environmental project in a senior year as a team leader for the study on the background levels of heavy metals in soils along Hangzhou section of the Grand Canal.

## **PUBLICATIONS**

### **Book and Book Chapter:**

1. **Zhang, C** (2015) Chapter 8: Graduate Studies to Explore Opportunities in Environmental Sciences. In: Environmental Science and Studies for the Curious, Editor: K. Vaidya, Curious Academic Publishing, January 2015. ISBN 978-1-925128-60-4.
2. **Zhang, C**, Mueller, J.F., Mortimer, M.R. (2014), Quality Assurance & Quality Control in Environmental Field Sampling, Future Science Ltd, London, UK.
3. Zhang J, **Zhang C** (2014), Chapter 4: Quality Assurance in Surface Water Sampling, In: Quality Assurance & Quality Control in Environmental Field Sampling, Future Science Ltd, London, UK, 2014.
4. **Zhang, C** (2013), Incorporation of Green Remediation into Soil and Groundwater Cleanups, pp. 75-84, Proceedings of First International Conference on Sustainable Human Development, Editor: Tariq M. Khan, Eduserv Group, UK (ISBN 978-0-9576287-1-7).
5. **Zhang C** (2007), Fundamentals of Environmental Sampling and Analysis, John Wiley and Sons, Inc., pp. 436, 2007. (This has been adopted as a textbook in over 20 universities around the world).
6. **Zhang C** (2007), Solution Manual: Fundamentals of Environmental Sampling and Analysis, John Wiley & Son, (<http://www.wiley.com/WileyCDA/WileyTitle/productCd-0471710970.html> for academic adopter)

### **Peer Reviewed Journal Articles:**

1. Ding, K; Kong, X; Wang, J; Lu, L; W Zhou, T Zhan, C Zhang, S Zhuang (2017), Side Chains of Parabens Modulate Antiandrogenic Activity: In Vitro and Molecular Docking Studies, *Environmental Science & Technology*, 51(11):6452-6460.

2. Niu, Lili; Xu, Chao; Zhang, Chunlong; Zhou, Yuting; Zhu, Siyu; Liu, Weiping (2017), Spatial distributions and enantiomeric signatures of DDT and its metabolites in tree bark from agricultural regions across China, *Environmental Pollution*, 220:111-118.
3. Keke Ding, Liping Lu, Jiaying Wang, Jingpeng Wang, Minqiang Zhou, Cunwu Zheng, Jinsong Liu, Chunlong Zhang, Shulin Zhuang (2017), In vitro and in silico Investigations of the Binary-mixture Toxicity of Phthalate Esters and Cadmium (II) to *Vibrio qinghaiensis* sp.-Q67, *Science of the Total Environment*, 580:1078-1084.
4. Shulin Zhuang, Xuan Lv, Liumeng Pan, Liping Lu, Zhiwei Ge, Jiaying Wang, Jingpeng Wang, Jinsong Liu, Weiping Liu, Chunlong Zhang (2017), Benzotriazole UV 328 and UV-P showed distinct antiandrogenic activity upon human CYP3A4-mediated biotransformation, *Environmental Pollution*, 220(A): 616-624.
5. Jianhui Jiang, Jianying Zhang, Yangwei Zhang, Chunlong Zhang, Guangming Tian (2016), Estimating nitrogen oxides emissions at city scale in China with a nightlight remote sensing model, *Science of the Total Environment* 544: 1119-1127.
6. Chenye Xu, Mengling Tang, Honghui Zhang, **Chunlong Zhang**, Weiping Liu (2016), Levels and patterns of DDTs in maternal colostrum from an island population and exposure of neonates, *Environmental Pollution*, 209:132-139.
7. Zhuang, S., Wang, H., Ding, K., Wang, J., Pan, L., Lu, Y., Liu, Q., **Zhang, C.** (2016), Interactions of benzotriazole UV stabilizers with human serum albumin: Atomic insights revealed by biosensors, spectroscopies and molecular dynamics simulations, *Chemosphere*, 144: 1050-1059.
8. Chen Wang, Lizhong Zhu, **Chunlong Zhang** (2015), A New Speciation Scheme of Soil PAHs toward Risk Assessment, *Journal of Soil and Sediment*, 15:1139-1149.
9. Jianying Zhang, Tengda Ding, Zhijian Zhang, **Chunlong Zhang** (2015), Enhanced Adsorption of Trivalent Arsenic from Water by Functionalized Diatom Silica Shells, *PLoS ONE*, 10(4): e0123395. doi:10.1371/journal.pone.0123395.
10. Zhang, J, **Zhang, C.** (2015), Current Techniques for Detecting and Monitoring Algal Toxins and Causative Harmful Algal Blooms, *Journal of Environmental Analytical Chemistry*, 2(1):1000123.
11. Mengling Tang, Meirong Zhao, Zhou Shanshan, Kun Chen, **Chunlong Zhang**, Weiping Liu (2014), Assessing the underlying breast cancer risk of Chinese females contributed by dietary intake of residual DDT from agricultural soils, *Environment International*, 73: 208–215.
12. Quan Zhang, Meiya Lu, Xiaowu Dong, Cui Wang, **Chunlong Zhang**, Weiping Liu, and Meirong Zhao (2014), Potential Estrogenic Effects of Phosphorus-Containing Flame Retardants, *Environmental Science Technology*, 48 (12):6995–7001.
13. Shulin Zhuang, **Chunlong Zhang**, and Weiping Liu, Atomic Insights into Distinct Hormonal Activities of Bisphenol A Analogues toward PPAR $\gamma$  and ER $\alpha$  Receptors, *Chemical Research in Toxicology*, 2014, 27 (10):1769–1779.
14. Lili Niu, Chao Xu, Yang Xu, **Chunlong Zhang**, and Weiping Liu, Hexachlorocyclohexanes in Tree Bark across Chinese Agricultural Regions: Spatial Distribution and Enantiomeric Signatures, *Environmental Science and Technology*, 2014, 48 (20):12031–12038.
15. **Zhang, C** (2013), Incorporation of green remediation into soil and groundwater cleanups, *International Journal of Sustainable Human Development*, 1(3):128-137.

16. Zhang, J, Ding, T, **Zhang C** (2013), Biosorption and toxicity responses to arsenite (As[III]) in *Scenedesmus quadricauda*, *Chemosphere*, 92:1077-1084.
17. Zhang, J, Ni, Y, Ding, T, **Zhang, C** (2013), The role of humic acid in the toxicity of arsenite to the diatom *Navicula sp.* *Environmental Science Pollution Research*, 1-10.
18. Ezebuio P, Gandhi J, **Zhang C**, Mathew J, Ritter M, Humphery M (2012), Optimal sample preservation and analysis of Cr(VI) in drinking water samplers by high resolution ion chromatography followed by post column reaction and UV/Vis detection. *J. Anal. Sci. Methods and Instrumentation*. 2, 74-80.
19. Yang H, Zhuo S, Xue B, **Zhang C**, Liu W (2012), Distribution, historical trends and inventories of polychlorinated biphenyls in sediments from Yangtze River Estuary and adjacent East China Sea, *Environmental Pollution*, 169:20-26.
20. Zhao, M, Wang, C, **Zhang, C**, Wen, Y, Liu, W (2012), Enantioselective cytotoxicity Profile of o,p'-DDT in PC 12 Cells, *PLoS ONE*, 7(8):1-10.
21. Zhuang, S, Zhang, J, Wen, Y, **Zhang, C**, Liu, W (2012), Distinct Mechanisms of Endocrine Disruption of DDT-related Pesticides towards ER  $\alpha$  and ERR  $\gamma$ , *Environmental Toxicology and Chemistry*, 31(11):2597-2605.
22. **Zhang, C** (2012), Environmental Analytical Chemistry, in Encyclopedia of Life Support Systems (EOLSS), Developed under the Auspices of the UNESCO, Eolss Publishers, Oxford, UK, [<http://www.eolss.net/Sample-Chapters/C09/E6-38-14.pdf>]
23. Thompson, K., Zhang, J., **Zhang, C.** (2011), Use of fugacity model to analyze temperature-dependant removal of micro-contaminants in sewage treatment plants, *Chemosphere*, 84(8):1066-1071.
24. Zhang, J., **Zhang, C.** (2011), Sampling and Sampling Strategies for Environmental Analysis, *International Journal of Environmental and Analytical Chemistry*, 1-10.
25. Wilson, B, Gandhi, J., **Zhang, C.** (2011), Analysis of Inorganic Nitrogen and Related Anions in High Salinity Water Using Ion Chromatography with Tandem UV and Conductivity Detectors, *Journal of Chromatographic Science*, 49:596-602.
26. Lawal W, Gandhi J, **Zhang C** (2010), Direct injection, simple and robust analysis of trace-level bromate and bromide in drinking water by IC with suppressed conductivity detection, *Journal of Chromatographic Science*, 48(7):537-43.
27. Yao C., Jin S., Shen, X., Chen S., **Zhang C.**, Sun, Y., The effect of agitation on volatilization of naphthalene from solution containing surfactant, *Journal of Hazardous Materials*, 2009, 154(1-3):795-803.
28. Ahmad R, **Zhang C**, Ahmed S, Karanfil T, Kaplan SS, Selbes M, Begum S (2008), Physico-chemical processes, *Water Environment Research*
29. Hu Q, **Zhang C**, Chen Y, Xiong Y, Mao K, Wang Z, Tang X (2008), Photodegradation of Methyl *tert-butyl* Ether (MTBE) by UV/H<sub>2</sub>O<sub>2</sub> and UV/TiO<sub>2</sub>, *Journal of Hazardous Materials*, 154(1-3):795-803.
30. Shen X, Sun Y, Ma Z, Zhang P, **Zhang C**, Zhu L (2007), Effects of Mixed-Surfactants on the Volatilization of Naphthalene from Aqueous Solutions, *Journal of Hazardous Materials*, 140:187-193.
31. Grenoble Z, **Zhang C**, Ahmed S, Jeffcoat S, Karanfil T, Selbes M, Kaplan S, Begum S, Ahmad R. (2007), Physico-chemical processes, *Water Environment Research*, 79(10):1228-1296.

32. Adam N, **Zhang C**, Gandhi J (2006), Determination of Trace Level Bromate and Bromide in Drinking Water by Suppressed Conductivity and Mass Spectrometry, *LC-MS North America*, p. 37, September issue.
33. **Zhang C**, Zheng G, Nichols CM (2006), Micellar Partitioning and Its Effects on Henry's Law Constants of Chlorinated Solvents in Anionic and Nonionic Surfactant Solutions, *Environmental Science and Technology*, 40(1):208-214.
34. Karanfil, T, Yadav, A, **Zhang, C**, Ghosh, S, Ahmed, S, Jeffcoat, SB, Ahmad, R (2006), Physico-chemical processes, *Water Environment Research*, 78(10):1193-1260.
35. Daprato RC, **Zhang C**, Spain JC, Hughes JB (2005), Modeling Aerobic Bioremediation of 2,4-Dinitrotoluene in a Bioslurry Reactor, *Environmental Engineering Science*, 22(5):676-688.
36. **Zhang C**, Bennett GN (2005), Biodegradation of Xenobiotics by Anaerobic Bacteria, *Applied Microbiology and Biotechnology*, Vol 67: 600-618.
37. Ahmad R, Degum S, **Zhang C**, Karanfil T, Genceli EA, Yadav A, Ahmed S (2005), Physico-chemical Processes, *Water Environment Research*, 77(6):982-1156.
38. Ahmad R, Degum S, Hoek, EMV, Karanfil T, Genceli EA, Yadav A, Trivedi P, **Zhang C** (2004), Physico-chemical Processes, *Water Environment Research*, 76(6):823-1002.
39. **Zhang C**, Fortner JD, Hughes JB (2004), Kinetics and Stoichiometry of Dinitrotoluene Mineralization to Support in situ Vadose Zone Bioremediation, In Magar VS, Kelley ME, eds, Bioremediation of Energetics, Phenolics and Polycyclic Aromatic Hydrocarbons. *The 7th International Symposium on In Situ and On-Site Bioremediation*, Columbus, Ohio, USA. (ISBN 1-57477-139-6).
40. **Zhang C**, Hughes, JB (2004), Bacterial Energetics, Stoichiometry and Kinetic Modeling of 2,4-Dinitrotoluene Biodegradation in a Batch Respirometer, *Environmental Toxicology and Chemistry*, 23(12):2799-2806.
41. Fortner JD, **Zhang C**, Spain JC, Hughes JB (2003), Soil Column Evaluation of Factors Controlling Biodegradation of DNT in the Vadose Zone, *Environmental Science and Technology*, 37(15):3382-3391.
42. **Zhang C**, Hughes JB (2003), Biodegradation Pathways of Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX) by *Clostridium acetobutylicum* Cell-free Extract, *Chemosphere*, 50(5):665-671.
43. **Zhang C**, Hughes JB, Daprato RC, Nishino SF, Spain JC (2001), Remediation of Dinitrotoluene Contaminated Soils from Former Ammunition Plants: Soil Washing Efficiency and Effective Process Monitoring in Bioslurry Reactors, *Journal of Hazardous Materials*, B87:139-154.
44. **Zhang C**, Hughes JB, Nishino SF, Spain J (2000), Slurry-Phase Biological Treatment of 2,4-Dinitrotoluene and 2,6-Dinitrotoluene: Role of Bioaugmentation and Effects of High Dinitrotoluene Concentrations, *Environmental Science and Technology*, 34(13):2810-2816.
45. Tadros MG, Crawford A, Mateo-Sullivan A, **Zhang C**, Hughes JB (2000), Toxic Effects of Hydroxylamino Intermediates on Algae *Selenastrum capricornutum*, *Bulletin of Environmental Contamination and Toxicology*, 64:579-585.
46. Hughes JB, Wang CY, **Zhang C**, (1999), Anaerobic Biotransformation of 2,4-Dinitrotoluene and 2,6-Dinitrotoluene by *Clostridium acetobutylicum*: A Pathway

- through Dihydroxylamino-Intermediates, *Environmental Science and Technology*, 33(7):1065-1070.
47. Gerlach R, Steiof M, **Zhang C**, Hughes JB (1999), Low Aqueous Electron Donors for the Reduction of Nitroaromatics in Anaerobic Sediments, *Journal of Contaminant Hydrology*, 36:91-104.
  48. Pucik LE, **Zhang C**, Hughes JB (1998), Fate of TNT and TNT-Transformed Products in Mixed Aerobic Cultures, *Bioremediation Journal*, 2(1):57-67.
  49. **Zhang C**, Valsaraj KT, Constant WD, Roy D (1998), Surfactant Screening for Soil Washing: Comparison of Foamability and Biodegradability of a Plant-Based Surfactant with Commercial Surfactants, *Journal of Environmental Science and Health*, A33(7):1249-1273.
  50. **Zhang C**, Valsaraj KT, Constant WD, Roy D (1999), Aerobic Biodegradation Kinetics of Four Anionic and Nonionic Surfactants at Sub- and Supra- Critical Micelle Concentrations (CMCs), *Water Research*, 33(1):115-124.
  51. **Zhang C**, Valsaraj KT, Constant WD, Roy D (1998), Nutrient and Surfactant Enhancement for the Biodegradation of Chlorinated Hydrocarbons in the Wastewater from a Louisiana Superfund Site, *Journal of Hazardous Materials*, 62:41-58.
  52. **Zhang C**, Valsaraj KT, Constant WD, Roy D (1998), Kinetic Modeling of Diauxic Microbial Growth in a Plant-Based Natural Surfactant from *Sapindus mukorossi*, *Journal of Environmental Science and Health*, A33(3):405-424.
  53. **Zhang C**, Valsaraj KT, Constant WD, Roy D (1996), Studies in Solvent Extraction Using Polyaphrons II. Semibatch and Continuous Countercurrent Extraction / Flotation of a Hydrophobic Organic Dye from Water, *Separation Science and Technology*, 31(10):1463-82.
  54. **Zhang C**, Valsaraj KT, Constant WD, Roy D (1996), Studies in Solvent Extraction Using Polyaphrons I. Size Distribution, Stability and Flotation of Polyaphrons, *Separation Science and Technology*, 31(8):1059-74.
  55. **Zhang C**, He Z, Ye Z (1988), Effects of Chromium on Nodulation and Nitrogenase Activity of Soybean (*Glycine max L.*), *China Environmental Science*, 8(3):41-44. (Chemical Abstracts 110: 34978e, 1989). (Excellent Paper Award)
  56. **Zhang C**, He Z, Ye Z (1988), Effect of Trivalent and Hexavalent Forms of Chromium on Soybean Growth, *Agro-Environmental Protection*, 7(4):23-26.
  57. **Zhang C**, He Z, Ye Z (1988), Effect of Chromium on Growth, Physiology, Nodulation and Nitrogen Fixation of Soybean, *Acta Agriculture Universitat Zhejiangensis*, 14(1):76-82.
  58. He Z, Ye Z, **Zhang C** (1986), Environmental Pollution and Biological Nitrogen Fixation: A Review, *Agro-Environmental Protection*, (5):20-23. (Excellent Paper Award)
  59. **Zhang C**, Gong B, Hu Q, Wu W, Qian Y, Fang R, Ruo S, Guo H, Miao S (1984), Studies on the Background Levels of Heavy Metals (Cu,Zn,Pb,Cd,Ni,Hg,Cr,As,Ti) in Soils along Hangzhou Section of the Grand Canal, *Zhejiang Agricultural University Press*, p.179-182.

#### **PRESENTATIONS (Selected)**

1. Anyanti Benedicta, Chunlong Zhang, Optimizing Operating Parameters to Enhance the removal of Emerging Contaminants in Wastewater Treatment Plants Using the STP Model, 7th SETAC World Congress/SETAC North America 37th Annual Meeting, Orlando, Florida, Nov 6-10, 2016. **(Platform)**
2. Jianying Zhang, Jin Chen, Junmei Cao, Chunlong Zhang, New insight into the toxic effects of arsenic with cellular evidences in the green algae and zebra fish, 7th SETAC World Congress/SETAC North America 37th Annual Meeting, Orlando, Florida, Nov 6-10, 2016.
3. Yassinskiy, V, Zhang, C, Life-Cycle Case Study Comparison of Various Remediation Technologies at the Geneva Industries Superfund Site, SETAC 35th National Meeting, November 1-5, 2015, Salt Lake City, Utah. **(Platform)**
4. Zhang, C, Striving for Innovation and Excellence in Environmental Research, Zhejiang University, August 12, 2015.
5. Zhang, C, Yassinskiy, V, Life Cycle Assessment for the Sustainability of Contaminated Site Remediation, Society of Environmental Toxicology and Chemistry Europe 25th Annual Meeting, Barcelona, Spain, May 3-7, 2015.
6. Valentin Yassinskiy, Chunlong Zhang, Use of openLCA for retrospective and impact assessment of sustainable remediation scenarios at the Geneva Superfund site, SETAC 35th National Meeting, November 9-13, 2014, Vancouver, Canada **(Platform)**.
7. Chunlong Zhang, Mohamad Azzam and Ashley P. Odgen (2014), Non-Target Analysis of Oil Dispersants and Their Effects on Petroleum Surface Tension, Solubility and Volatilization, 2014 International Conference on Water Resource and Environmental Protection [WREP 2014], Hong Kong, China, June.7-8, 2014 **(Platform)**
8. Zhang, C., Increased green remediation for soil and groundwater cleanup: Driving force, sustainable elements and assessment, SETAC 34th National Meeting, November 17-21, 2013, Nashville, TN. (Poster).
9. Zhang, C., Incorporation of Green Remediation into Soil and Groundwater Cleanups. First International Conference on Sustainable Human Development, July 3-4, 2013, London, UK **(Platform)**.
10. Zhang, C., e-Publishing to Meet Today's Education & Technology Challenges: A Perspective from an Environmental Educator & Researcher, Future Science Group, London, UK, July 4, 2013 **(Invited Talk)**.
11. Zhang, C., Water Environmental Chemistry – From Fundamentals to Future Frontiers, Zhejiang University, April 9, 2013 **(Invited Talk)**.
12. Zhang, C., Reviewers' and Editors' Roles in Publishing Your Papers, Zhejiang University, March 10, 2013 **(Invited Talk)**.
13. Azzam, M., Zhang, C., Characterization of Oil Dispersants and Their Effects on Petroleum Solubility and Volatilization, SETAC 33<sup>rd</sup> National Meeting, November 11-17, 2012, Long Beach, CA.
14. Zhang, C. (2012), Environmental Professionals in Meeting the Dynamic Challenges: Global Perspectives and Case Studies, Zhejiang University, May 30, 2012 **(Invited Talk)**.

15. Azzam, M., Zhang, C., Toward the Full Chemical Characterization of Dispersants Used in Oil Spill, SETAC 32<sup>nd</sup> National Meeting, November 13-17, 2011, Boston, MA.
16. Zhang, C. (2011), Study on Legacy and Emerging Organic Contaminants: Our Research Challenges and Future Perspectives, Zhejiang University, June 28, 2011 (**Invited Talk**).
17. Zhai, D., Zhang, C. Optimized Selection of Landfill Sites in Houston Area Using Geographical Information System, Environmental Challenges and Innovations Conference: Gulf Coast 2011, TAEP ECIC11 Conference, Texas Association of Environmental Professionals, Houston, Texas, February 10, 2011. (**Platform**)
18. Mendez, A., Susan P. Harris, S.P., Baki, B.A., Zhang, C. Petro- and Environmental Applications of Microwave-based Ultra Fast GC for the Analysis of Petro-hydrocarbons and PCBs, PITTCON, Atlanta, GA, March 13-18, 2011. (**Platform**)
19. Zhang, C., Sampling and Sampling Strategies for Environmental Analysis, 36th International Symposium on Environmental and Analytical Chemistry, Rome, Italy, October 05–09, 2010. (**Keynote Speaker**)
20. Zhang, C., Environmental Science: We Should All Care, University of Houston-Clear Lake, Scholarly Lecture Series, November 17, 2010 (**Invited Lecture**)
21. Zhang, C, Bisphenol A Treat Using Ozonation and UV/H<sub>2</sub>O<sub>2</sub>, EIH Advisory Meeting, University of Houston, March 12, 2010. (**Invited**)
22. Thompson, K., Zhang, C. Use of fugacity model to analyze temperature-dependant removal of micro-contaminants in sewage treatment plants, 31st Annual National Society of Environmental Toxicology and Chemistry (SETAC), Portland, OR, November 7-11, 2010. (**Platform**)
23. Gandhi, J., Shearrow, A., Zhang, C., Wilson, B., Analysis of Micro Nutrients in Water, National Environmental Monitoring Conference, September 14, 2010. (Poster)
24. Wilson, B., Gandhi, J., Zhang, C., Analysis of Inorganic Nitrogen and Related Anions and Cations in Various Waters Using Ion Chromatography with Tandem Conductivity / UV Detector, International Ion Chromatography Symposium (IICS), Cincinnati, Ohio, Sept 19 -22, 2010. (**Platform**)
25. Zhang, J., Zhou, W., Tang, X., Zhang, C., Comparison of Polychlorinated Biphenyls Sorption in Three Soils of an Urban Area in China, The 6th International Conference on Environmental Geochemistry in Tropics--Urban Issues, November 4-7, 2010, Xiamen, China (**Platform**)
26. Zhang, Challenges and Treatment Techniques for Emerging Contaminants in Water and Wastewater, Environmental Challenges and Innovations Conferences: Gulf Coast 2010, Texas Association of Environmental Professionals, February 11, 2010 (**Platform**)
27. Zhang, C. Soil and Groundwater Remediation, Division of Occupational and Environmental Health Sciences, School of Public Health, The University of Texas Health Science Center at Houston, March 23, 2009 (**Invited Lecture**).
28. Gandhi, Zhang, C., Lawal, W. Trace Level Determination of Bromate in Drinking Water by Direct Injection Ion Chromatography and Suppressed Conductivity Detection, 21<sup>st</sup> International Ion Chromatography Symposium (IICS 2009), Dublin, Ireland, September 21-24, 2009.

29. Lawal, W., Gandhi, J., Zhang, C. Bromide and Bromate Concentrations in Bottle Waters and Selected Tap Waters in Houston, Texas Area, 65<sup>th</sup> Southwest (SWRM), American Chemical Society Meeting, November 4 – 7, El Paso, TX **(Platform)**.
30. Naik, V., Zhang, C. Advanced Oxidation of Bisphenol A in Water Stream Using Ozonation, SETAC North America 30<sup>th</sup> Annual Meeting.
31. Zhang, C. Removal of Bisphenol A in Water Using Ozonation and UV-based Photodegradation. EIH Fall Advisory Meeting, University of Houston, October 29, 2009. **(Platform)**
32. Piovesan, M, Zhang, C (2008), Sorption of endocrine disrupting compounds and its environmental implications, SETAC North America 29<sup>th</sup> Annual Meeting, November 16-20, 2008, Tampa, Florida **(Platform)**
33. Piovesan, M, Zhang, C (2008), Sorption of endocrine disrupting compounds and the environmental significance, Society of Environmental Toxicology and Chemistry South Central Regional Chapter Annual Meeting, Houston, TX, May 15-16, 2008. **(Platform)**
34. Piovesan, M, Zhang, C (2008), Adsorption of Endocrine Disrupting Compounds and Its Environmental Implications, 4th International Conference on Environmental Science and Technology, the American Academy of Sciences (AAS), July 28-31, 2008. **(Platform)**
35. Adam, N, Gandhi, J, Zhang, C. (2007), Determination of Bromide and Bromate in Drinking Water and Surface Water Using LC/MS and IC/MS, SETAC North America 28th Annual Meeting, November 11-15, 2007, Milwaukee, Wisconsin **(Platform)**.
36. Russek, A. J, Zhang, C (2007), Remediation of Hexavalent Chromium via Zero Valent Iron: Batch Study Using Aged Iron, The Third International Conference on Environmental Science and Technology, American Academy of Sciences, August 6-9, 2007, Houston, Texas **(Platform)**.
37. Russek, A. J, Zhang C (2007), Remediation of Hexavalent Chromium via Zero Valent Iron: A Batch Study Using Aged Iron, The American Association for the Advancement of Science Southwestern and Rocky Mountain Division (AAAS-SWARM), April 18-21, 2007 Houston, Texas. **(Platform)**.
38. Grenoble Z, Zhang C (2006), Sorption and Biodegradation of Two Natural Endocrine Disrupters in a Simulated Activated Sludge Process, 27<sup>th</sup> Society of Environmental Toxicology and Environmental Chemistry (SETAC), Montreal, Canada, Nov 5-10, 2006.
39. Grenoble Z, Zhang C (2006) Sorption Effects on Biodegradation of EDCs in Batch Reactors Simulating Wastewater Treatment Plants, South Central Regional SETAC Chapter Meeting, Denton, TX, May 18-20, 2006 **(Platform)**
40. Grenoble Z, Zhang C (2006), Respirometer Study and Simulation of the Biodegradation Process of Endocrine Disrupting Compounds in Wastewater Treatment Plants, Environmental Institute of Houston **(Platform)**
41. Grenoble Z, Zhang C, Hedrick J (2006), Analysis of Natural and Synthetic Steroids by LC/MS in ESI-negative and ESI-positive Mode, 102<sup>nd</sup> Gulf Coast Conference, October 17-19, Galveston Island, Texas **(Platform)**
42. Grenoble Z, Zhang C (2006), Respirometer Study and Simulation of the Biodegradation Process of Endocrine Disrupting Compounds in Wastewater

- Treatment Plants, 2<sup>nd</sup> International Conference on Environmental Science and Technology 2006, American Academy of Sciences, August 19-22, 2006, Houston **(Platform)**
43. Adam, N, Zhang C, Gandhi J (2006), Trace Level Determination of Bromate and Bromide in Purified Seawater by High Efficiency Ion-Exchange Liquid Chromatography and Electro-spray Mass Spectrometry, 19<sup>th</sup> Annual International Ion Chromatography Symposium, Pittsburg, PA, September 24-27 **(Platform)**
  44. Kaulen, MA, Zhang, C (2005), A Chemodynamic Sediment Flux Model in TMDLs Determination of PAHs in Patrick Bayou, Texas, 26<sup>th</sup> Annual SETAC Meeting in North America, Baltimore, Maryland **(Platform)**
  45. Grenoble Z, Zhang, C (2005), Use of Respirometer and LC/MS to Study the Sorption and Biodegradation of Endocrine Disrupting Compounds, 26<sup>th</sup> Annual SETAC Meeting in North America, Baltimore, Maryland, November 13-17, 2005.
  46. Zhang, C (2005), Surfactants in Aquifer Remediation: Research Promise and Challenge, Zhejiang University, August 2005 **(Invited)**
  47. Zhang, C (2005), Endocrine Disrupting Chemicals (EDCs) in the Environment, Environmental Institute of Houston Lecture Series, February 23, 2005
  48. Zhang C, Aman MB, Hughes JB (2004), Reduction of Cr(VI) by Elemental Iron: Batch Study and Implications to Groundwater and Sediment Remediation, Society of Environmental Toxicology and Chemistry 25<sup>th</sup> Annual Meeting in North America, Portland, Oregon, November 14-19, 2004.
  49. Zhang C, Law MD, Deeb R, Hughes JB (2004), Nitroaromatic Pollutant Migration at VAAP Site: Bench-Scale Sorption and Leachability Studies, Society of Environmental Toxicology and Chemistry 25<sup>th</sup> Annual Meeting in North America, Portland, Oregon, November 14-19, 2004 **(Platform)**.
  50. Zhang C, Zheng G, Nichols CM (2004), Micellar Partitioning of Chlorinated Solvents in Anionic and Nonionic Surfactant Solutions, 78<sup>th</sup> American Chemical Society (ACS) Colloid and Surface Science Symposium, Yale University, New Haven, CT, June 20-23, 2004. **(Platform)**
  51. Aman MB, Hughes JB, Zhang C (2004), The Reduction of Cr(VI) to Cr(III) by Elemental Iron: Batch Remediation Feasibility Study with and without Sediment, 10<sup>th</sup> Annual Student Conference for Research & Creative Arts, Houston, Texas, April 21-22, 2004.
  52. Zhang C (2004) Anaerobic Bacteria in Bioremediation and Biotechnological Applications. University of Houston-Clear Lake (BIO Seminar), November 8, 2004.
  53. Zhang C (2003), Compounds of Emerging Environmental Concerns: Challenges and Opportunities in Chemodynamics and Remediation, Zhejiang University, December 18, 2003. **(Invited)**
  54. Law MD, Zheng G, Zhang C (2003), Sorption and Biodegradation of Sorbed Dinitrotoluene in Model Soil Systems: Implications to Remediation, 24<sup>th</sup> SETAC Annual Meeting, Austin, Texas, November 9-13, 2003. **(Platform)**
  55. Vega L, Zhang C, Hedrick, J (2003). Determination of Estrogenic Levels in a Simulated Spacecraft Wastewater Solution Using LC/MS, Gulf Coast Conference, Galveston, TX, Oct. 21-23, 2003. **(Platform)**
  56. Zhang C, Fortner JD, Hughes JB (2003), Kinetics and Stoichiometry of 2,4-Dinitrotoluene Mineralization To Support In-Situ Vadose Zone Bioremediation, 7<sup>th</sup>

- International Symposium on In Situ and On-Site Bioremediation, Orlando, Florida, June 4-7, 2003.
57. Law MD, Zheng G, Zhang C (2003), Sorption Behavior and Its Effect on the Biodegradation of 2,4-Dinitrotoluene, SETAC South Central Regional Chapter Meeting, Armand Bayou Nature Center, Houston, TX, April 24-26, 2003 **(Platform)**
  58. Law MD, Zheng G, Zhang C (2003), Sorption Behavior of Dinitrotoluenes in Various Soils and Sorbents, 9<sup>th</sup> Annual Student Conference for Research & Creative Arts, Houston, Texas, April 22-23, 2003.
  59. Zhang C, Zheng, G, Holston G, Lambert, G (2003), Potential Release of Polycyclic Aromatic Hydrocarbons (PAHs) from Contaminated Sediment in Galveston Bay-Houston Ship Channel, SETAC South Central Regional Chapter Meeting, Armand Bayou Nature Center, Houston, TX, April 24-26, 2003 **(Platform)**
  60. Zhang C, Zheng, G, Holston G, Lambert G (2003), Potential PAH Release from Contaminated Sediment in Galveston Bay-Houston Ship Channel, Environmental Institute of Houston, April 8, 2003. **(Invited)**
  61. Zhang C, Zheng, G, Holston, G, Lambert G (2003), Potential PAH Release from Contaminated Sediment in Galveston Bay-Houston Ship Channel, Sixth Biennial State of the Bay Symposium, League City, Texas, January 14-16, 2003 **(Platform)**
  62. Zhang C, Fortner JD, Hughes JB (2002), Respiriometer Studies on 2,4-Dinitrotoluene and Implications to In-Situ Vadose Zone Bioremediation, Society of Environmental Toxicology and Chemistry, 23<sup>rd</sup> Annual Meeting in North America, Salt Lake City, Utah, November 11-15, 2002. **(Platform)**
  63. Zhang C, Zheng G, Nichols NM (2002), Effect of Surfactants on the Vapor-Water Partitioning of Chlorinated Solvents, 224<sup>th</sup> ACS National Meeting, Boston, Massachusetts, August 18-22, 2002.
  64. Fortner JD, Zhang C, Finnessy KE, Hughes JB (2002), In Situ Biostimulation of Dinitrotoluene Mineralization in Vadose Zone Soils: Bench-Scale Analysis, Innovative Approaches to the in-situ Assessment and Remediation of Contaminated Sites, NSF-Pan-American Advanced Study Institute, Rio de Janeiro, Brazil, July 22-Aug 2, 2002.
  65. Zhang C, Fortner JD, Hughes JB (2002), Respiriometer Study to Optimize 2,4-Dinitrotoluene Mineralization in Vadose Zone, Society of Environmental Toxicology and Chemistry, 2002 South Central Regional Meeting, June 6-8, 2002, Lubbock, Texas **(Platform)**
  66. Zhang C (2002), Bioremediation of Explosives Contaminated Soils: Strategies for In Situ Vadose Zone Remediation and Ex Situ Bioslurry Reactors, Department of Civil Engineering, Texas Tech University, Lubbock, TX, June 7, 2002 **(Invited)**
  67. Zhang C, Fortner JD (2002), Finnessy, K.E., Hughes, J.B. Bench-scale analysis of in-situ dinitrotoluene bioremediation for vadose zone soils, The Third International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Monterey, California, May 20-23, 2002.
  68. Zheng G, Nichol NM, Zhang C (2002), Effect of Surfactants on the Henry's Law Constant of Chlorinated Solvents, 8<sup>th</sup> Annual Student Conference for Research & Creative Arts, Houston, Texas, April 17-18, 2002.

69. Zhang C (2001), Bioremediation for a Cleaner Environment: A Case Study on the Strategies Using Slurry-Phase Bioreactor, BIO 6838 Research Project and Seminar, UHCL, November 2001. **(Invited Lecture)**
70. Zhang C, Hughes JB (2001), Kinetics and Pathways of Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX) by *Clostridium acetobutylicum*, Society of Environmental Toxicology and Chemistry 22<sup>nd</sup> Annual Meeting in North America, Baltimore, Maryland, November 11-15, 2001.
71. Zhang C (2001), Bioremediation of Dinitrotoluenes in Soils: Identification of Limiting Factors, Environmental Institute of Houston, November 8, 2001.
72. Zhang C (2001), Highly Toxic Chemicals in Houston Ship Channel, Channel Industries Mutual Aid (CIMA) 2001 Training Symposium, Pasadena, Texas, October 24-25, 2001. **(Invited)**
73. Zhang C, Hughes JB, Daprato RC, Nishino SF, Spain JC (2001), Bioslurry Treatment of Dinitrotoluene Contaminated Soils: Process Feasibility and Strategies for Low-cost Monitoring, International Conference on Environmental Concerns and Emerging Abatement Technologies, Beijing, China, October 9-12, 2001. **(Invited)**
74. Zhang C, Hughes JB, Daprato RC, Nishino SF, Spain JC (2001), Stoichiometry of Dinitrotoluene Mineralization in a Pilot-Scale Slurry-Phase Bioreactor System, 6<sup>th</sup> International Symposium on In Situ and On-Site Bioremediation, San Diego, California, June 4-7, 2001.
75. Daprato RC, Zhang C, Hughes JB (2001), Interpretation and Modeling Reactor Performance for the Aerobic Bioremediation of Dinitrotoluene Contaminated Soils, Innovative Approaches to the On-Site Assessment and Remediation of Contaminated Sites, NATO Advanced Study Institute, Prague, Czech Republic, May, 2001.
76. Sui X, Muirhead DL, Jackson WA, Zhang C (2001), The Color of Total Suspended Solids: A New Tool for Remote Sensing and Environmental Monitoring of Surface Water Quality, 7<sup>th</sup> Annual Student Conference for Research & Creative Arts, Houston, Texas, April 18-19, 2001.
77. Spain J, Nishino SF, Zhang C, Hughes JB (1999), DNT Degradation in Soil from Badger Army Ammunition Plant, the Strategic Environmental Research and Development Program Symposium, November 30 – December 2, 1999, Hyatt Regency Crystal City, Arlington, VA.
78. Zhang C, Shirley SF, Hughes JB, Spain J (1999), Aerobic Biodegradation of 2,4-Dinitrotoluene and 2,6-Dinitrotoluene in a Pilot-Scale Sequential Slurry Reactor System, Second International Symposium on Biodegradation of Nitroaromatic Compounds and Explosives, Leesburg, VA, September 8-9, 1999.
79. Tadros MG, Crawford A, Mateo-Sullivan A, Zhang C, Hughes J (1999), Toxic Effects of Hydroxylamino Intermediates from Microbial Transformation of Trinitrotoluene and Dinitrotoluenes on Algae *Selenastrum capricornatum*, Second International Symposium on Biodegradation of Nitroaromatic Compounds and Explosives, Leesburg, VA, September 8-9, 1999.
80. Hughes JB, Wang C, Zhang C, Padda RS, Clark S, Bennett G (1999), Reduction of Nitroaromatic Explosives by *Clostridium acetobutylicum*, In Situ and On-Site Bioremediation, The Fifth International Symposium, San Diego, CA, April 19-22, 1999.

81. Zhang C, Constant WD, Valsaraj KT, Roy D (1997), Nutrient and Surfactant Augmentation for the Biodegradation of Chlorinated Hydrocarbons in the Wastewater from a Louisiana Superfund Site, Industrial and Engineering Chemistry (IE&C) Special Symposium on Emerging Technologies in Hazardous Waste Management, IX, American Chemical Society, Pittsburgh, PA, September 15-17, 1997. **(Platform)**
82. Zhang C, Valsaraj KT, Constant WD, Roy D (1997), Aerobic Biodegradation of Surfactants Applied in Soil Washing for the Clean-up of a Louisiana Superfund Site, Industrial and Engineering Chemistry (IE&C) Special Symposium on Emerging Technologies in Hazardous Waste Management, IX, American Chemical Society, Pittsburgh, PA, September 15-17, 1997. **(Platform)**
83. Valsaraj KT, Constant WD, Zhang C (1995), Wastewater Treatment Using Polyaphrons, Symposium of American Water Resources Association Louisiana Section, Gonzales, Louisiana, October, 1995. **(Platform)**
84. Zhang C (1986), Effects of Chromium on Soybean Growth, Physiology, Nodulation and Nitrogen Fixation, First National Symposium of Graduates in Environmental Sciences, Qing-Hua University, Beijing, China, August, 1986. **(Platform)**

## SERVICES

### Professional Services

1. **Editorial Board:** *Water, Air, and Soil Pollution*, 2010-Present.
2. **Editorial Board:** *Environmental Toxicology and Chemistry*, 2006 - 2008.
3. **Editorial Board:** *The Scientific World Journal*, 2011-Present
4. **Session Chair:** Advances in Environmental Sampling and Analysis, 33<sup>rd</sup> Annual National Society of Environmental Toxicology and Chemistry (SETAC), Long Beach, CA, November 11-15, 2012.
5. **Session Chair:** Advances in Environmental Sampling and Analysis, 32<sup>nd</sup> Annual National Society of Environmental Toxicology and Chemistry (SETAC), Boston, MA, November 13-17, 2011.
6. **Session Chair:** Advances in Environmental Sampling and Analysis, 31<sup>st</sup> Annual National Society of Environmental Toxicology and Chemistry (SETAC), Portland, OR, November 7-11, 2010.
7. **Session Chair:** Advances in Environmental Sampling and Analysis, 30<sup>th</sup> Annual National Society of Environmental Toxicology and Chemistry (SETAC), New Orleans, LA, November 19-23, 2009.
8. **Session Chair:** Advances in Environmental Sampling and Analysis, 29<sup>th</sup> Annual National Society of Environmental Toxicology and Chemistry (SETAC), Tampa, Florida, November 16-20, 2008.
9. **Session Chair:** Contaminant Harbor and River Sediment, 28<sup>th</sup> Annual National Society of Environmental Toxicology and Chemistry (SETAC), Milwaukee, Wisconsin, November 11-15, 2007.
10. **Session Chair:** Phytoremediation, The Third International Conference on Environmental Science and Technology, American Academy of Sciences, August 6-9, 2007, Houston, Texas.

11. **Session Chair:** Environmental Science, The American Association for the Advancement of Science Southwestern and Rocky Mountain Division (AAAS-SWARM), April 18-21, 2007 Houston, Texas.
12. **Session Chair:** Contaminant Harbor and River Sediment, 27<sup>th</sup> Annual National Society of Environmental Toxicology and Chemistry (SETAC), Montreal, Canada, November 5-10, 2006.
13. **Session Chair:** Contaminant Harbor and River Sediment, 26<sup>th</sup> Annual National Society of Environmental Toxicology and Chemistry (SETAC), Baltimore, Maryland, November 13-17, 2005.
14. **Session Chair:** Contaminant Harbor and River Sediment, 25<sup>th</sup> Annual National Society of Environmental Toxicology and Chemistry (SETAC) Conference & 4<sup>th</sup> SETAC World Congress, Portland, Oregon, November 14-18, 2004.
15. **Session Chair:** Contaminant Harbor and River Sediment, 24<sup>th</sup> Annual National Society of Environmental Toxicology and Chemistry (SETAC) Conference, Austin, Texas, November 9-13, 2003.
16. **Society Committee Member:** Water Environmental Federation Literature Review Committee, Physico-chemical Processes in Treatment Systems, 2003-2008.
17. **Society Committee Member:** Review draft methods to be published in the “Standard Methods for the Examination of Water and Wastewater” (2004-Present)
18. **Journal Reviewer (35+):** Environmental Science and Technology, Environmental Toxicology and Chemistry, Environmental International, Environmental Pollution, Water Research, Atmospheric Environment, Environmental Science Pollution Research, ASCE Journal of Environmental Engineering, Journal of Environmental Quality, ASME Journal of Energy Resources Technology, Canadian Journal of Microbiology, Environmental Engineering Science, Journal of Hazardous Materials, Water, Air & Soil Pollution, Langmuir, Bioresource Technology, Biotechnology and Bioengineering, Environmental Monitoring and Assessment, Process Biochemistry, Journal of Zhejiang University Science (English Version), Journal of Environmental Science CHINA (English), Journal of Environmental Management, Journal of Environmental Engineering and Science, Chemosphere, Colloids and Surfaces A: Physicochemical and Engineering Aspects, Chemical Engineering Journal, International Journal of Environmental Analytical Chemistry; Applied Microbiology and Biotechnology, The Scientific World Journal; Journal of Soil and Sediments; Archives of Environmental Contamination and Toxicology, Chirality, CLEAN: Soil, Air, Water, Chemical Engineering & Technology; Journal of Radioanalytical and Nuclear Chemistry, Journal of Food and Agricultural Chemistry.
19. **Book Reviewer (25+):** Reviewed more than 25 books, book chapters, and book proposals in the field of environmental chemistry and engineering for: CRC Press, Taylor & Francis LLC, Jones and Bartlett Publishers, John Wiley & Sons, Cambridge University Press, W.H. Freeman and Company Publishers, Oxford University Press, American Chemical Society, America Water Works Association.
20. **Proposal Reviewer:** Reviewed proposals in the total amount of more than \$60 million dollars for various agencies, including: (1) National Science Foundation NSF /USDA Microbial Observatories and Microbial Interactions and Processes program as a Microbial Interactions and Processes proposal (2007-2008); (2)

- National Science Foundation (NSF) Proposal review panel on IEDs and Explosive (2006-2007; 2008); (3) U.S. Geological Survey (USGS) and National Institutes for Water Resources (NIWR) National Competitive Grants Program (2002-2005); (4) SERDP Proposal Review Panel (EPA-DoD-DoE), 2005, 2008, 2011, 2014; (5) Institute for Space Systems Operations (ISSO) (2006, 2010); (6) Environmental Institute of Houston (EIH) (2007, 2010), (7) LSU BP Gulf Research Initiatives (GRI) on oil spills; (8) Mississippi-Alabama Sea Grant, (9) Israeli Ministry of Science, Technology and Space, (10) Singapore National Research Foundation
21. **Professional Societies Member:** Association of Environmental Engineering and Science Professors (AEESP), Society of Environmental Toxicology and Chemistry (SETAC), American Chemical Society (ACS), National Society of Professional Engineers (NSPE), Louisiana Engineering Society (LES)

### **Service to the University:**

1. **Interim Program Chair & Program Chair:** Environmental Science Program Chair. The program is composed of 10 full-time faculty members with environmental biology, environmental chemistry, environmental geology, industrial hygiene, and safety specializations (01/2005 – present)
2. **University Level Committee:** Provost *Ad Hoc* Committee on Research (2016), Core Curriculum Assessment Committee (CCAC, 2016-Present), STEM and Classroom Building committee for a proposed \$120 million (2015), President’s Distinguished Faculty Awards Committee (PDFA, 2014), Faculty Senator Committee (2006-2007), University Student Life Committee (2002-2005), University Food Advisory Committee (2002-2005), Advisory Board, Environmental Institute of Houston (2006-present).
3. **School Level Committee:** Student Affairs Committee (2001-2006), Faculty Development Fund Committee (2008-; 2013-), Policy and Advisory Committee (2009-), Faculty Search Committee (2002, Assistant Professor in Organic Chemistry), Staff Search Committee for School Web Administrator (2002); Faculty Search Committee (2004-2005, Assistant Professor in Organic Chemistry), Faculty Search Committee (2004-2005, Assistant Professor in Safety), Faculty Search Committee Chair (2006-2007, Assistant Professor in Environmental Geology), Faculty Search Committee (2006-2007, Assistant Professor in Biotechnology), Faculty Search Committee (2008, Visiting Assistant Professor in Statistics), Chair of Promotion and Tenure Review Committee (one in 2007, one in 2010), Promotion and Tenure Review Committee (one in 2006, three in 2007), Faculty Search Committee (2008, Statistics), 3<sup>rd</sup> Year Review Committee Chair (one in 2008), Faculty Search Committee (2009, Assistant Professor in Microbiology, Instructor in Chemistry), 3<sup>rd</sup> Year Review Committee Chair (2009). Faculty Search Committee (2010, Assistant Professor in Chemistry, Instructor in Chemistry), 3<sup>rd</sup> Year Review Committee Chair (one in 2010), Promotion to Professor committee (one in 2011), Chair of Promotion and Tenure Review (one in 2012), P&T Review Committee Chair (one request for promotion to full professor, 2013), P&T Review Committee member (two requests for promotion to full professor, one P&T to associate professor, 2013), Third-Year Review Committee (two in 2012-2013), and faculty

search committee for three assistant professors (microbiology 2012-2013, chemistry and geology, 2013-2014), P&T Review Committee (three full professor applications in 2014), P&T Review Committee member (one in 2014), and faculty search committee (4 assistant professors, microbiology, chemistry and geology, continued from 2013; INDH, 2014), and three instructors (Biotechnology in 2014; ENSC and CHEM, 2014), P&T Review Committee (two full professor applications in 2015), and faculty search committee for associate / assistant professor (INDH; CHEM; INDH) and three instructors (ENSC, CHEM; ENSC), P&T Review Committee (two full professor applications in 2016), and faculty search committee for associate / assistant professor (INDH; CHEM, 2016) and one instructor (ENSC, 2016), Staff search committee (safety and industrial hygiene, 2016).

4. **Program Organizer:** Teaching Environmental Science sponsored by Texas Commission on Environmental Quality (TCEQ), 2003, 2004, 2005, 2006, 2007.
5. **Faculty Advisor:** Environmental Science / Chemistry undergraduate and graduate students; Environmental Science / Geology undergraduate and graduate (Fall 2006-2007). Biotechnology graduate students.
6. **Contributor:** American Chemical Society (ACS) accreditation (2009, 2014); Industrial Hygiene and Safety (IHS) accreditation (2009, 2014; SACS accreditations, Environmental Science Program 2<sup>nd</sup> and 3<sup>rd</sup> five year program review (2003; 2010), Biotechnology Program Review (2014)
7. **Participant:** Convocation, Open House, Showcase, Graduation Commencement Faculty Representative (2000 – present)
8. **Participant:** Cultural immersion and international events at UHCL, 2001, 2002
9. **ASIL (Advanced Science Instrumentation Lab) Lab Manager:** Routine instrument maintenance and repair (2000 – present): LC-MS-TOF, GC-MS, LC-MS, GC-FID, GC-ECD, and IC.

#### **Service to the Community:**

1. **Advisory Board,** Lee College NSF Transforming Undergraduate Education in Science (TUES) proposal, 2011.
2. **Invited Speaker:** “Highly Toxic Chemicals in Houston Ship Channel” in Channel Industries Mutual Aid (CIMA) 2001 Training Symposium, Pasadena, Texas, October 24-25, 2001.
3. **Science Fair Judge:** Rice High School, Houston, Texas, 1999
4. **Science Fair Judge:** Seabrook Intermediate School, Seabrook, Texas, 2001-Present
5. **Science Fair Judge, Lead Judge and Grand Award Judge:** Clear Creek High School District (CCISD), Houston, Texas, 2002-Present
6. **Science Fair Judge & UHCL Special Award Judge:** Houston Science and Engineering Fair, Houston, Texas, 2002-Present
7. **Faculty Advisor:** Clear Lake High School, Clear Brook High School, North Pointe Elementary School, Space Center Intermediate.
8. **Volunteer:** Houston Food Bank (2014)