

## A. ACADEMIC HISTORY

**Name:** Qingguo Huang

**Present Rank:** Professor

**Proportion Time Assignment:**

70% Research and 30% Teaching, 2007-2022

65% Research, 30% Teaching, and 5% Service, 2023-

**Tenure Status:** Tenured

**Graduate faculty:** 2007 to present

**Academic Record:**

<u>Degree</u>	<u>Institution</u>	<u>Major Field</u>	<u>Year</u>
B.S.	Nanjing University	Environmental Science	1990
Ph.D.	Nanjing University	Chemistry (Advisor Liansheng Wang)	1995
Ph.D.	University of Michigan, Ann Arbor	Environmental Engineering (Advisor Walter J. Weber, Jr.)	2003

**Academic Positions:**

<u>Year</u>	<u>Organization</u>	<u>Position</u>
1990-95	Nanjing University	Research Assistant
1995-97	Nanjing University	Lecturer
1997-98	Nanjing University	Research Associate Professor
1997-98	Hong Kong Polytechnic University	Visiting Scientist
1998-2002	University of Michigan	Research Assistant
2003-2006	University of Michigan	Research Fellow
2007-2012	University of Georgia	Assistant Professor
2012-2017	University of Georgia	Associate Professor
2017-	University of Georgia	Professor

## B. INSTRUCTION

### I. Nanjing University

Course Taught

1. Spring 1995 Technical English in Environmental Science
2. Fall 1995 Environmental Monitoring (with lab)
3. Spring 1996 Technical English in Environmental Science
4. Fall 1996 Environmental Monitoring (with lab)
5. Spring 1997 Technical English in Environmental Science

### II. University of Michigan

Asist Teaching

1. Fall 2003 Environmental Processes and Systems
2. Fall 2004 Environmental Processes and Systems
3. Fall 2005 Environmental Processes and Systems
4. Fall 2006 Environmental Processes and Systems

### III. University of Georgia

Courses taught

1. Fall 2007 CRSS 3050 – Introduction to Water Quality (with Lab)
2. Spring 2008 CRSS 4660/6660- Chemical Analysis of Environmental Samples (with Lab)
3. Spring 2008 AESC 4950-Special Problem in Agricultural and Environmental Studies
4. Spring 2009 CRSS 3050- Introduction to Water Quality (with Lab)

5. Fall 2009 CRSS 4660/6660- Chemical Analysis of Environmental Samples (with Lab)
6. Spring 2010 CRSS 3050- Introduction to Water Quality (with Lab)
7. Spring 2011 CRSS 3050- Introduction to Water Quality (with Lab)
8. Fall 2011 CRSS 4660/6660- Chemical Analysis of Environmental Samples (with Lab)
9. Spring 2012 CRSS 3050- Introduction to Water Quality (with Lab)
10. Spring 2013 CRSS 3050- Introduction to Water Quality
11. Spring 2014 CRSS 3050- Introduction to Water Quality
12. Fall 2014 CRSS 4660/6660- Chemical Analysis of Environmental Samples (with Lab)
13. Fall 2015 CRSS 8220- Instrumental Analysis in Environmental Studies (Advanced Topics)
14. Spring 2016 CRSS 3050- Introduction to Water Quality (with Lab)
15. Fall 2016 CRSS 4660/6660- Chemical Analysis of Environmental Samples (with Labs)
16. Spring 2017 CRSS 3050- Introduction to Water Quality (with Lab)
17. Spring 2018 CRSS 3050- Introduction to Water Quality
18. Fall 2019 CRSS 8220- Instrumental Analysis in Environmental Studies (Advanced Topics)
19. Fall 2020 CRSS 3050- Introduction to Water Quality (with Lab) (Co-taught)
20. Fall 2021 CRSS 3050- Introduction to Water Quality (with Lab) (Co-taught)
21. Fall 2021 CRSS 8220- Instrumental Analysis in Environmental Studies (Advanced Topics)
22. Fall 2022 CRSS3050- Introduction to Water Quality (with Lab) (Co-taught)
23. Fall 2023 CRSS3050- Introduction to Water Quality (with Lab) (Co-taught)

#### **Group Teaching**

24. Fall 2009, PHRM (VPHY, ENSC) 6910, Introductory Toxicology, a graduate course taught by a group of 6 faculty members
25. Fall 2010, PHRM (VPHY, ENSC) 6910, Introductory Toxicology, a graduate course taught by a group of 6 faculty members
26. Fall 2011, PHRM (VPHY, ENSC) 6910, Introductory Toxicology, a graduate course taught by a group of 6 faculty members
27. Fall 2012 PHRM (VPHY, ENSC) 6910, Introductory Toxicology, a graduate course taught by a group of 10 faculty members
28. Fall 2013 PHRM (VPHY, ENSC) 6910, Introductory Toxicology, a graduate course taught by a group of 9 faculty members

#### **Guest Lectures**

29. Fall 2008, Introduction to Nanotechnology, a graduate seminar course in Physics
30. Fall 2009, Introduction to Nanotechnology, a graduate seminar course in Physics
31. Fall 2011, Introduction to Nanotechnology, a graduate seminar course in Physics
32. Fall 2013, Introduction to Nanotechnology, a graduate seminar course in Physics
33. Fall 2015, Introduction to Nanotechnology, a graduate seminar course in Physics
34. Fall 2016, Introduction to Nanotechnology, a graduate seminar course in Physics

### **C. SCHOLARLY ACTIVITIES**

#### **I. Book Edited**

1. PFAS treatment technologies, Ed., Yang Y, Huang Q., Chiang, D., 2023, Royal Society of Chemistry, Cambridge, England, in press.

#### **II. Chapters in Books**

1. Huang Q., Wang Y. 2023 "Electrochemical oxidation" in PFAS treatment technologies, Ed., Yang Y, Huang Q., Chiang, D., Royal Society of Chemistry, Cambridge, England, in press.
2. Hu C., Zhang L., Huang Q. 2018 "Uptake and distribution of  $^{14}\text{C}$ -Labeled multi-walled carbon nanotubes by wheat (*Triticum aestivum* L.)" in *Phytotoxicity of Nanoparticles*, Faisal M., Saquib Q., Alatar A., Al-Khedhairi A, Ed., Springer.
3. Zhang L., Huang Q. 2012 "Environmental fate, transport and transformation of carbon nanoparticles" in *Biotechnology and Nanotechnology Risk Assessment*, Ripp S., Ed., ACS book series.

4. Huang Q., Weber W. J. Jr. 2005 "Peroxidase-catalyzed oxidative coupling of phenols in the presence of geosorbents" in *Subsurface Contamination Remediation: Accomplishments of the Environmental Management Science Program*, Edgar B. and Zachry T., Ed., ACS book Series 904, 64-81.
5. Huang Q. 1995 "Methods of carcinogenicity prediction for organic contaminants" in *Advancement of Environmental Chemistry* (in Chinese), Wang L., Ed., Chemistry and Chemical Engineering Press, Beijing, China.
6. Huang Q. 1995 "Computer applications in environmental chemistry" in *Advancement of Environmental Chemistry* (in Chinese), Wang L., Ed., Chemistry and Chemical Engineering Press, Beijing, China.
7. Huang Q. 1993 "Applications of quantum chemistry in QSAR studies" in *Quantitative Structure-Activity Relationships of Organic Chemicals* (in Chinese), Wang L., Han S., Ed., 1993, Chinese Environmental Science Press, Beijing, China.

### III. Refereed Journal Articles (\* indicates Huang as corresponding author, H index = 57)

1. Zhang K., Wang R., Wang H., Li M., Zhao P., Wang Y., Wang B., Shi H., Zhang W., Gao S., Huang Q., 2024, Electrooxidation of chlorophene and dichlorophen by reactive electrochemical membrane: Key determining factors of removal efficiency, *Environmental Research*, 241, 117612.
2. Grunfeld AD, Jones AM., Sun J., Le ST, Pickford R., Huang Q., Manefield M., Kumar N., Lee MJ., O'Carroll DM, 2024, Electrochemical degradation of a C6-perfluoroalkyl substance (PFAS) using a simple activated carbon cathode, *Environmental Science: Water Research & Technology*, 10 (1), 272-287.
3. Shi H., Zhang K., Wang R., Wang H., Li M., Wang B., Zhang W., Tang J., Huang Q., Gao S., 2024, Degradation of 17 $\beta$ -estradiol and antifouling properties of Magnéli phase Ti<sub>4</sub>O<sub>7</sub> reactive electrochemical membrane in the presence of fulvic acid, *Separation and Purification Technology*, 329, 125189.
4. Wang Y., Munir U., Huang Q.\*, 2023, Occurrence of per- and polyfluoroalkyl substances (PFAS) in soil: Sources, fate, and remediation, *Soil & Environmental Health*, 1 (1), 100004.
5. Wang Y., Ji Y., Li K., Huang Q.\*, 2023, Foam fractionation and electrochemical oxidation for the treatment of per- and polyfluoroalkyl substances (PFAS) in environmental water samples, *Chemosphere*, 339, 139615.
6. Zhong C., Cao H., Huang Q., Xie Y., Zhao H., 2023, Degradation of sulfamethoxazole by Manganese (IV) oxide in the presence of humic acid: Role of stabilized semiquinone radicals, *Environmental Science & Technology*, 57 (36), 13625-13634.
7. Tang C., Liang Y., Wang K., Liao J., Zeng Y., Luo X., Peng X., Mai B., Huang Q., Lin H., 2023, Comprehensive characterization of per- and polyfluoroalkyl substances in wastewater by liquid chromatography-mass spectrometry and screening algorithms, *npj Clean Water*, 6 (1), 6.
8. Meng L., Dong J., Chen J., Li L., Huang Q., Lu J., 2023, Activation of peracetic acid by spinel FeCo<sub>2</sub>O<sub>4</sub> nanoparticles for the degradation of sulfamethoxazole, *Chemical Engineering Journal*, 456, 141084.
9. Wang Y., Ji Y., Tishchenko V., Huang Q.\*, 2023, Removing per- and polyfluoroalkyl substances (PFAS) in water by foam fractionation, *Chemosphere*, 311 (2), 137004.
10. Tang C., Zhu Y., Liang Y., Zeng Y.H., Peng X., Mai B.X., Xu J., Huang Q., Lin H., 2023, First discovery of iodinated polyfluoroalkyl acids by nontarget mass-spectrometric analysis and iodine-specific screening algorithm, *Environmental Science & Technology*, 57(3), 1378-1390.
11. Wang R., Wan H., Wang B., Zhang K., Shi H., Zhang W., Tang J., Wang H., Gao S., Huang Q., 2023, Mechanistic study of electrooxidation of coexisting chloramphenicol and natural organic matter: Performance, DFT calculation and removal route, *Separation and Purification Technology*, 306, 122584.
12. Wang Y., Li L., Huang Q.\*, 2022, Electrooxidation of per- and polyfluoroalkyl substances in chloride-containing water on surface-fluorinated Ti<sub>4</sub>O<sub>7</sub> anodes: Mitigation and elimination of chlorate and perchlorate formation, *Chemosphere*, 207, 135877.
13. Wang L., Wang Y., Sui Y., Lu J., Hu B., Huang Q\*, 2022, Formation of chlorate and perchlorate during electrochemical oxidation by Magnéli phase Ti<sub>4</sub>O<sub>7</sub> anode: inhibitory effects of coexisting constituents, *Scientific Reports*, 2022,12 (1), 1-8.
14. Wang D., Tian J., Guan J., Ding Y., Wang ML, Tonnis B., Liu J., Huang Q\*, 2022, Valorization of sugarcane bagasse for sugar extraction and residue as an adsorbent for pollutant removal, *Frontiers in Bioengineering and Biotechnology*, 10, 893941.

15. Li G., Dunlap J., Wang Y., Huang Q., Li K., 2022, Environmental life cycle assessment (LCA) of treating PFASs with ion exchange and electrochemical oxidation technology, *ACS ES&T Water*, 9, 1555-1564.
16. Sidhu S., Huang Q., Carrow RN, Jespersen D., Liu J., Raymer PL, A review of a novel enzyme system for the management of thatch and soil water repellency in turfgrass, *International Turfgrass Society Research Journal*, 14, 450-461.
17. Li C., Wang Y., Wang Y., Wang Z., Huang Q.\*, 2022, Electrochemical oxidation combined with UV irradiation for synergistic removal of perfluorooctane sulfonate (PFOS) in water, *Journal of Hazardous Materials*, 436, 129091.
18. Kim J, Xin X., Mamo B.T., Hawkins G.L., Li K., Chen Y., Huang Q., Huang C-H., 2022, Occurrence and Fate of Ultrashort-Chain and Other Per- and Polyfluoroalkyl Substances (PFAS) in Wastewater Treatment Plants, *ACS ES&T Water*, 2(8), 1380-1390.
19. Guan J., Hu C., Zhou J., Huang Q., Liu J., 2022, Adsorption of heavy metals by Lycium barbarum branch-based adsorbents: raw, fungal modification, and biochar, *Water Science and Technology*, 85, 2145-2160.
20. Li S., Sun K., Latif A., Si Y., Gao Y., Huang Q., 2022, Insights into the applications of extracellular laccase-aided humification in livestock manure composting, *Environmental Science & Technology*, 56, 7412-7425.
21. Wang Y, Warner M, Li K, Hawkins GL, Huang Q\*, 2022, Assessing explicit models of per-and polyfluoroalkyl substances adsorption on anion exchange resins by rapid small-scale column tests, *Chemosphere*, 300, 134547.
22. Wang Y, Kim J, Huang C-H, Hawkins G, Li K, Chen Y, Huang Q\*, 2022, Occurrence of Per-and Polyfluoroalkyl Substances in Water: A Review, *Environmental Science: Water Research & Technology*, 8, 1136.
23. Liang S., Mora R., Huang Q., Casson R., Wang Y., Woodard S., Anderson, H., 2022, Field demonstration of coupling ion-exchange resin with electrochemical oxidation for enhanced treatment of per-and polyfluoroalkyl substances (PFAS) in groundwater, *Chemical Engineering Journal Advances*, 9, 100216.
24. Wang Y, Li L, Wang Y, Shi H, Wang L, Huang Q\*, 2022, Electrooxidation of perfluorooctanesulfonic acid on porous Magnéli phase titanium suboxide Anodes: Impact of porous structure and composition, *Chemical Engineering Journal*, 431, 133929.
25. Li L., Wang Y., Huang Q.\*, 2021, First-Principles Study of the Degradation of perfluorooctanesulfonate and perfluorobutanesulfonate on a Magnéli phase Ti<sub>4</sub>O<sub>7</sub> anode, *ACS ES&T Water* 2021, 1,1737-1744.
26. Shi H., Chiang S.-Y. D., Wang Y, Wang Y., Liang S., Zhou J., et al., Fontanez R., Gao S., Huang, Q.\*, 2021, An electrocoagulation and electrooxidation treatment train to remove and degrade per-and polyfluoroalkyl substances in aqueous solution, *Science of the Total Environment*, 788, 147723.
27. Sun K., Li S., Si Y., Huang Q.\*, 2021, Advances in laccase-triggered anabolism for biotechnology applications, *Critical Reviews in Biotechnology*, 1-25.
28. Sun L., Sun S., Bai M., Wang Z., Zhao Y., Huang Q., Hu C. Li X., 2021, Internalization of polystyrene microplastics in *Euglena gracilis* and its effects on the protozoan photosynthesis and motility, *Aquatic Toxicology*, 236, 105840.
29. Wang L., Nickelsen M. Chiang S.-Y. D., Woodard S., Wang Y., Liang S., Mora R., Fontanez R., Hunter A., Huang Q.\*, 2021, Treatment of perfluoroalkyl acids in concentrated wastes from regeneration of spent ion exchange resin by electrochemical oxidation using Magnéli phase Ti<sub>4</sub>O<sub>7</sub> anode, *Chemical Engineering Journal Advances*, 5, 100078.
30. Lin H., Xiao R., Xie R., Yang L., Tang C., Wang R., Chen J., Lv S., Huang Q., 2021, Defect Engineering on a Ti<sub>4</sub>O<sub>7</sub> Electrode by Ce<sup>3+</sup> Doping for the Efficient Electrooxidation of Perfluorooctanesulfonate, *Environmental Science & Technology*, 55, 2597-2607.
31. Wang B., Shi H., Habteselassie M. Y., Deng X., Teng Y., Wang Y., Huang Q.\*, 2021, Simultaneous removal of multidrug-resistant *Salmonella enterica* serotype typhimurium, antibiotics and antibiotic resistance genes from water by electrooxidation on a Magnéli phase Ti<sub>4</sub>O<sub>7</sub> anode. *Chemical Engineering Journal*, 407, 127134.
32. Lin H., Peng H., Feng X., Li X., Zhao J., Yang K., Liao J., Cheng D., Liu X., Huang Q., 2020, Energy-efficient advanced oxidation of bio-treated landfill leachate effluent by reactive electrochemical membranes (REMs): Laboratory and pilot scale studies. *Water Research*, 190, 116790.

33. Wang Y., Shi H., Li C., & Huang Q.\*, 2020, Electrochemical degradation of perfluoroalkyl acids by titanium suboxide anodes. *Environmental Science: Water Research & Technology*, 6(1), 144-152.
34. Wang L., Lu J., Li L., Wang Y., & Huang, Q.\*, 2020, Effects of chloride on electrochemical degradation of perfluorooctanesulfonate by Magnéli phase Ti<sub>4</sub>O<sub>7</sub> and boron doped diamond anodes. *Water Research*, 170, 115254.
35. Kan Q., Lu K., Dong S., Shen D., Huang Q., Tong Y., Mao L., 2020, Transformation and removal of imidacloprid mediated by silver ferrite nanoparticle facilitated peroxymonosulfate activation in water: Reaction rates, products, and pathways. *Environmental Pollution*, 267, 115438.
36. Qi H., Wang L., Huang Q., Hung Y.-C., 2020, Effect of organic load on the efficacy of activated persulfate in inactivating *Escherichia coli* O157:H7 and the production of halogenated by-products. *Food Control*, 114, 107218.
37. Sun C., Li W., Xu Y., Hu N., Ma J., Cao W., Sun S., Hu C., Zhao Y., Huang Q., 2020, Effects of carbon nanotubes on the toxicities of copper, cadmium and zinc toward the freshwater microalgae *Scenedesmus obliquus*. *Aquatic Toxicology*, 105504.
38. Shi H., Wang M., Wang B., Huang Q., Gao S., 2020, Insights on photochemical activities of organic components and minerals in dissolved state biochar in the degradation of atorvastatin in aqueous solution. *Journal of Hazardous Materials*, 392, 122277.
39. Zhong C., Zhao H., Cao H., & Huang Q., 2019, Polymerization of micropollutants in natural aquatic environments: A review. *Science of the Total Environment*, 133751.
40. Yang P., Ji Y., Lu J., & Huang Q., 2019, Formation of nitrophenolic byproducts during heat-activated peroxydisulfate oxidation in the presence of natural organic matter and nitrite. *Environmental Science & Technology*, 53(8), 4255-4264.
41. Sun K., Liu Q., Zhu R., Liu Q., Li S., Si Y., & Huang Q.\*, 2019, Oxidase-Like Catalytic Performance of Nano-MnO<sub>2</sub> and Its Potential Application for Metal Ions Detection in Water. *International Journal of Analytical Chemistry*, 5416963.
42. Sun K., Li S.-Y., Chen H.-L., Huang Q., & Si Y., 2019, MnO<sub>2</sub> nanozyme induced the chromogenic reactions of ABTS and TMB to visual detection of Fe<sup>2+</sup> and Pb<sup>2+</sup> ions in water. *International Journal of Environmental Analytical Chemistry*, 99(6), 501-514.
43. Sidhu S. S., Huang Q., Carrow R. N., & Raymer, P. L., 2019, Short-term and Residual Effects of Laccase Application on Creeping Bentgrass Thatch Layer. *HortScience*, 54(9), 1610-1620.
44. Shi H., Wang Y., Li C., Pierce R., Gao S., & Huang Q.\*, 2019, Degradation of Perfluorooctanesulfonate by Reactive Electrochemical Membrane Composed of Magnéli Phase Titanium Suboxide. *Environmental Science & Technology*, 53(24), 14528-14537.
45. Qi H., Huang Q., & Hung Y.-C., 2019, Efficacy of activated persulfate in pathogen inactivation: A further exploration. *Food Research International*, 120, 425-431.
46. Liu J., Hu C., & Huang Q., 2019, Adsorption of Cu<sup>2+</sup>, Pb<sup>2+</sup>, and Cd<sup>2+</sup> onto oiltea shell from water. *Bioresource Technology*, 271, 487-491.
47. Liu J., Chen F., Li C., Lu L., Hu C., Wei Y., Raymer P., Huang Q.\*, 2019, Characterization and utilization of industrial microbial waste as novel adsorbent to remove single and mixed dyes from water. *Journal of Cleaner Production*, 208, 552-562.
48. Luo Q., Yan X., Lu J., Huang Q.\*, 2018, Perfluorooctanesulfonate degrades in a laccase-mediator system. *Environmental Science and Technology*, 52, 10617-10626.
49. Liang S., Lin H., Habteselassie M., Huang Q.\*, 2018, Electrochemical inactivation of bacteria with a titanium sub-oxide reactive membrane. *Water Research*, 145, 172-180.
50. Lin H., Niu J., Liang S., Wang C., Wang Y., Jin F., Luo Q., Huang Q.\*, 2018, Development of macroporous Magnéli phase Ti<sub>4</sub>O<sub>7</sub> ceramic materials: As an efficient anode for mineralization of poly- and perfluoroalkyl substances. *Chemical Engineering Journal*, 354, 1058-1067.
51. Luo Q., Liang S., Huang Q.\*, 2018, Laccase induced degradation of perfluorooctanoic acid in a soil slurry. *Journal of Hazardous Materials*, 359, 241-247.
52. Lu J., Yang P., Dong W., Ji Y., Huang Q., 2018, Enhanced formation of chlorinated disinfection byproducts in the UV/chlorine process in the presence of benzophenone-4. *Chemical Engineering Journal*, 351, 304-311.
53. Wang X., Yao J., Wang S., Pan X., Xiao R., Huang Q., Wang Z., Qu R., 2018, Phototransformation of estrogens mediated by Mn (III), not by reactive oxygen species, in the presence of humic acids. *Chemosphere*, 201, 224-233.

54. Sun K., Li S., Waigi MG, Huang Q.\*, 2018, Nano-MnO<sub>2</sub>-mediated transformation of triclosan with humic molecules present: kinetics, products, and pathways, *Environmental Science and Pollution Research*, 25, 14416-14425.
55. Liang S., Pierce Jr. R., Lin H., Chiang S-Y, Huang Q.\*, 2018, Electrochemical oxidation of PFOA and PFOS in concentrated waste streams, *Remediation Journal*, 28, 127-134.
56. Hu J., Lu K., Dong S., Huang Q., Mao L., 2018, Inactivation of laccase by the attack of As (III) reaction in water, *Environmental Science & Technology*, 52, 2945-2952.
57. Liu J., Wang Z., Li H., Hu C., Raymer P., Huang Q.\*, 2018, Effect of solid state fermentation of peanut shell on its dye adsorption performance, *Bioresource Technology*, 249, 307-314.
58. Liang S., Lin H., Yan X., Huang Q.\*, 2018, Electro-oxidation of tetracycline by a Magnéli phase Ti<sub>4</sub>O<sub>7</sub> porous anode: Kinetics, products, and toxicity, *Chemical Engineering Journal*, 332, 628-636.
59. Qi H., Huang Q., Hung YC, 2018, Effectiveness of electrolyzed oxidizing water treatment in removing pesticide residues and its effect on produce quality, *Food Chemistry*, 239, 561-568.
60. Gochmour B. M., Suiter D. R., Davis J. W., & Huang, Q., 2018, Use of an Argentine Ant, *Linepithema humile*, Semiochemical to Deliver an Acute Toxicant. *Insects*, 9(4), 171.
61. Shi H., Wang G., Huang Q., Li J., Yang Y., Gao S., Wang Z., 2018, The mutual promotion of photolysis and laccase-catalysis on removal of dichlorophen from water under simulated sunlight irradiation, *Chemical Engineering Journal*, 338, 392-400.
62. Qu R., Li C., Pan X., Zeng X., Liu J., Huang Q., Feng J. Wang Z., 2017, Solid surface-mediated photochemical transformation of decabromodiphenyl ether (BDE-209) in aqueous solution, *Water Research*, 125, 114-122.
63. Wang J., Liu J., Ling W., Huang Q., Gao Y., 2017, Composite of PAH-degrading endophytic bacteria reduces contamination and health risks caused by PAHs in vegetables, *Science of The Total Environment*, 518, 471-478.
64. Luo Q., Wang Z., Feng M., Chiang D., Woodward D., Liang S., Lu J., Huang Q.\*, 2017, Factors controlling the rate of perfluorooctanoic acid degradation in laccase-mediator systems: The impact of metal ions, *Environmental Pollution*, 224: 649-657.
65. Liang S., Luo Q., Huang Q.\*, 2017, Degradation of sulfadimethoxine catalyzed by laccase with soybean meal extract as natural mediator: Mechanism and reaction pathway, *Chemosphere*, 181, 320-327.
66. Sun K., Huang Q., Li S., 2017, Transformation and toxicity evaluation of tetracycline in humic acid solution by laccase coupled with 1 hydroxybenzotriazole, *Journal of Hazardous Materials*, 331, 182-188.
67. Lu K., Huang Q., Xia T., Chang X., Wang P., Gao, S., Mao, L., 2017, The potential ecological risk of multiwall carbon nanotubes was modified by the radicals resulted from peroxidase-mediated tetrabromobisphenol A reactions. *Environmental pollution* 220, 264-273.
68. Sun K., Kang F., Waigi M G., Gao Y., Huang, Q.\*, 2017, Laccase-mediated transformation of triclosan in aqueous solution with metal cations and humic acid. *Environmental pollution*, 220, 105-111.
69. Lu J., Shi Y., Ji Y., Kong D., Huang, Q., 2017, Transformation of triclosan by laccase catalyzed oxidation: The influence of humic acid-metal binding process. *Environmental pollution*, 220, 1418-1423.
70. Mao L., Liu C., Lu K., Su, Y., Gu, C., Huang, Q., Petersen E. J., 2016, Exposure of few layer graphene to *Limnodrilus hoffmeisteri* modifies the graphene and changes its bioaccumulation by other organisms. *CARBON*, 109, 566-574.
71. Dong S., Xiao H., Huang Q., Zhang J., Mao L., Gao S., 2016, Graphene Facilitated Removal of Labetalol in Laccase-ABTS System: Reaction Efficiency, Pathways and Mechanism. *Scientific Reports*, 6-12.
72. Liu J., Li E., You X., Hu C., Huang Q., 2016, Adsorption of methylene blue on an agro-waste oiltea shell with and without fungal treatment, *Scientific Reports*, 6, 38450-38456.
73. Du P., Zhao H., Liu C., Huang Q., Cao H., 2016, Transformation and products of captopril with humic constituents during laccase-catalyzed oxidation: Role of reactive intermediates, *Water Research*, 106, 488-495.
74. Hao Z., Wu H., Yang M., Chen J., Xi L., Zhao W., Huang, Q.\*, 2016, Cloning, Expression and 3D Structure Prediction of Chitinase from Chitinolyticbacter meiyuanensis SYBC-H1. *International Journal of Molecular Sciences*, 17(6).

75. Lu J., Dong W., Ji Y., Kong D., Huang Q., 2016, Natural organic matter exposed to sulfate radicals increases its potential to form halogenated disinfection byproducts.. *Environmental Science & Technology*, 50(10), 5060-5067.
76. Sun K., Liang S., Kang F., Gao Y., Huang Q. \*, 2016, Transformation of 17 $\beta$ -estradiol in humic acid solution by  $\epsilon$ -MnO<sub>2</sub> nanorods as probed by high-resolution mass spectrometry combined with (13) C labeling. *Environmental Pollution*, 214, 211-218.
77. Sun K., Luo Q., Gao Y., & Huang, Q. \*, 2016, Laccase-catalyzed reactions of 17 $\beta$ -estradiol in the presence of humic acid: Resolved by high-resolution mass spectrometry in combination with 13C labeling. *Chemosphere*, 145, 394-401.
78. Zhang D., Luo Q., Gao B., Chiang S.Y., Woodward D., & Huang, Q. \*, 2016, Sorption of perfluorooctanoic acid, perfluorooctane sulfonate and perfluoroheptanoic acid on granular activated carbon. *Chemosphere*, 144, 2336-2342.
79. Wang X., Qu R., Liu J., Wei Z., Wang L., Yang S., Huang Q. \*, Wang Z., 2016, Effect of different carbon nanotubes on cadmium toxicity to *Daphnia magna*: The role of catalyst impurities and adsorption capacity. *Environmental Pollution*, 208, 732-738.
80. Zhao H., Zhang D., Du P., Li H., Liu C., Li Y., Cao H, Crittenden JC, Huang Q \*, 2015, A combination of electro-enzymatic catalysis and electrocoagulation for the removal of endocrine disrupting chemicals from water. *Journal of Hazardous Materials*, 297, 269-277.
81. Lin H., Wang Y., Niu J., Yue Z., Huang Q. \*, 2015, Efficient sorption and removal of perfluoroalkyl acids (PFAAs) from aqueous solution by metal hydroxides generated in situ by electrocoagulation. *Environmental Science & Technology*, 49(17), 10562-10569.
82. Lu J., Shao J., Liu H., Wang Z., Huang, Q., 2015, Formation of halogenated polyaromatic compounds by laccase catalyzed transformation of halophenols. *Environmental Science & Technology*, 49(14), 8550-8557.
83. Lu K., Huang Q., Wang P., & Mao L., 2015, Physicochemical changes of few-layer graphene in peroxidase-catalyzed reactions: characterization and potential ecological effects. *Environmental Science & Technology*, 49(14), 8558-8565.
84. Luo Q., Lu J., Zhang H., Wang Z., Feng M., Chiang S.Y. D., Woodward D., Huang Q. \*, 2015, Laccase-catalyzed degradation of perfluorooctanoic acid. *Environmental Science & Technology Letters*, 2(7): 198-203.
85. Singh R., Sidhu S. S., Zhang H., Huang Q. \*, 2015, Removal of sulfadimethoxine in soil mediated by extracellular oxidoreductases. *Environmental Science and Pollution Research*, 22(21), 16868-16874.
86. Wang X., Qu R., Huang Q., Wei Z., Wang Z., 2015, Hepatic oxidative stress and catalyst metals accumulation in goldfish exposed to carbon nanotubes under different pH levels. *Aquatic Toxicology*, 160, 142-150.
87. Singh R., Cabrera M. L., Radcliffe, D. E., Zhang H., Huang Q. \*, 2015, Laccase mediated transformation of 17 beta-estradiol in soil. *Environmental Pollution*, 197, 28-35.
88. Feng M., Qu R., Habteselassie M., Wu J., Yang S., Sun P., Huang Q., Wang Z., 2015, Hepatic Transcriptome Responses in Mice (*Mus musculus*) Exposed to the Nafion Membrane and Its Combustion Products. *PLOS ONE*, 10(6).
89. Qu R., Feng M., Wang X., Huang Q., Lu J., Wang L., Wang Z., 2015, Rapid Removal of Tetrabromobisphenol A by Ozonation in Water: Oxidation Products, Reaction Pathways and Toxicity Assessment. *PLOS ONE*, 10(10).
90. Liu J., Sidhu S. S., Wang M. L., Tonniss B., Habteselassie M., Mao J., Huang, Q. \*, 2015, Evaluation of various fungal pretreatment of switchgrass for enhanced saccharification and simultaneous enzyme production, *Journal of Cleaner Production.*, 104:480-488.
91. Zhou L., Luo Q., Lu J., Huang Q. \*, 2015, Transformation of 17 $\beta$ -Estradiol by *Phanerochaete chrysosporium* in different culture media, *B. Environ. Conta. & Toxi.*, 95(2):265-71.
92. Qin L., Huang Q., Wei Z., Wang L., Wang Z., 2014, The influence of hydroxyl-functionalized multi-walled carbon nanotubes and pH levels on the toxicity of lead to *Daphnia magna*, *Environmental toxicology and pharmacology*, 38(1), 199-204.
93. Liu J., Liu W., Cai Y., Liao X., Huang Q., Liang, X., 2014, Laccase production by *Trametes hirsuta*, characterization, and its capability of decoloring chlorophyll. *Polish Journal of Microbiology*, 63(3), 323-333.
94. Zhang L., Niu J., Wang Y., Shi J., Huang Q. \*, 2014, Chronic effects of PFOA and PFOS on sexual reproduction of freshwater rotifer *Brachionus calyciflorus*, *Chemosphere*, 114, 114-120.

95. Hu C., Luo Q., Huang Q.\*, 2014, Ecotoxicological effects of perfluorooctanoic acid on freshwater microalgae *Chlamydomonas reinhardtii* and *Scenedesmus obliquus*, *Environmental Toxicology and Chemistry*, 33(5): 1129-1134.
96. Guo X., Dong S., Petersen E., Gao S., Huang Q., Mao L., 2014, Biological uptake and depuration of radio-labeled graphene by *Daphnia magna*. *Environ. Sci. & Technol.*, 47(21):12524-12531.
97. Zhang L., Petersen E., Habteselassie M., Mao L., Huang Q.\*, 2014, Degradation of multiwall carbon nanotubes by bacteria, *Environmental Pollution*, 181:335-339.
98. Bao Y., Niu J., Xu Z., Gao D., Shi J., Sun X., Huang Q., 2014, Removal of perfluorooctane sulfonate (PFOS) and perfluorooctanoate (PFOA) from water by coagulation: Mechanisms and influencing factors, *Journal of Colloid and Interface Science*, 434 (15): 59–64.
99. Kong D., Xia Q., Liu G., Huang Q. Lu J., 2014, Covalent bonding of chloroanilines to humic constituents: Pathways, kinetics, and stability, *Environmental Pollution*, 180:48-54.
100. Xia Q., Kong D., Liu G., Huang Q., Alalewi A., Lu J., 2014, Removal of 17 beta-estradiol in laccase catalyzed treatment processes, *Frontiers of Environmental Science & Engineering*, 8 (3) : 372-378.
101. Sidhu, S.S., Q. Huang, R.N. Carrow, and P.L. Raymer, 2014, Optimizing laccase application on creeping bentgrass (*Agrostis stolonifera* L.) to facilitate biodegradation, *Crop Sci.*, 54: 1804-1815.
102. Qin L., Huang Q., Wei Z., Wang L., Wang Z., 2014, The influence of hydroxyl-functionalized multi-walled carbon nanotubes and pH levels on the toxicity of lead to *Daphnia magna*, *Environmental Toxicology and Pharmacology*, 38 (1): 199–204.
103. Zeng L., Liu J., Carrow C., Raymer P., Huang Q.\*, 2014, Evaluation of direct application of enzymes to remediate soil water repellency, *HortScience*, 49(5):662-666.
104. Feng Y., Colosi L., Gao S., Huang Q., Mao L., 2013, Transformation and Removal of Tetrabromobisphenol A from Water in the Presence of Natural Organic Matter via Laccase-Catalyzed Reactions: Reaction Rates, Products, and Pathways, *Environ. Sci. & Technol.*, 47(2): 1001-1008.
105. Sidhu, S.S., Q. Huang, R.N. Carrow, and P.L. Raymer, 2013, Laccase mediated changes in physical and chemical composition properties of thatch layer in creeping bentgrass (*Agrostis stolonifera* L.), *Soil Biol. Biochem.*, 64: 48-56.
106. Liu J., Wang M., Tonniss B., Habteselassie M., Liao X., Huang Q.\*, 2013, Fungal pretreatment of switchgrass for improved saccharification and simultaneous enzyme production, *Bioresource Technology*, 135: 39-45.
107. Zhang L., Pan Z., Huang Q.\*, 2013, Effect of primary particle size on colloidal stability of multiwall carbon nanotubes, *Water Science & Technology*, 68 (10): 2249-2256.
108. Luo Q., Adams P., Lu J., Cabrera M., Huang Q.\*, 2013, Influence of poultry litter land application on the concentrations of estrogens in water and sediment within a watershed, *Environmental Science: Processes & Impacts*, 15(7):1383-90.
109. Sidhu, S.S., Q. Huang, R.N. Carrow, and P.L. Raymer, 2013, Efficacy of fungal laccase to facilitate biodegradation in bermudagrass and zoysiagrass, *Agron. J.*, 105: 1247-1252.
110. Liu J., Zeng L., Carrow R., Raymer P., Huang Q.\*, 2013, Novel approach for alleviation of soil water repellency using a crude enzyme extract from fungal pretreatment of switchgrass, *Soil Research*, 51, 322-329.
111. Liu J., Cai Y., Liao X., Huang Q., Hao Z., Hu M., Zhang D., Li Z., 2013, Efficiency of laccase production in a 65-L air-lift reactor for potential green industrial and environmental application, *Journal of Cleaner Production*, 39: 154-160.
112. Liu J., Cai Y., Liao X., Huang Q., Hao Z., Hu M., Zhang D., 2013, Purification and characterization of a novel thermal stable laccase from *Pycnoporus* sp. SYBC-L3 and its use in dye decolorization, *Biology and Environment-Proceedings of the Royal Irish Academy*, 1:27-39.
113. Chen J., Mao L., Zhao Z., Shen M., Zhang S., Huang Q., Gao S., 2012, Bioaccumulation, depuration and biotransformation of 4,4'-dibromodiphenyl ether in crucian carp (*Carassius auratus*), *Chemosphere* 86 (5): 446-453.
114. Liu J., Cai Y., Liao X., Huang Q., Hao Z., Hu M., Zhang D., 2012, Simultaneous laccase production and color removal by culturing fungus *Pycnoporus* sp SYBC-L3 in a textile wastewater effluent supplemented with a lignocellulosic Waste *Phragmites australis*., *Bull. Environ. Conta. Toxicol.* 89 (2): 269-273.
115. Petersen E., Pinto R.A., Shi X., Huang Q.\*, 2012, Impact of size and sorption on degradation of trichloroethylene and polychlorinated biphenyls by nano-scale zerovalent iron., *J. Hazard. Mat.* 243: 73-79.



116. Sidhu S.S., Huang Q.G., Carrow R.N., Raymer P.L., 2012, Use of fungal laccases to facilitate biodegradation: A new approach., *HortScience* 47 (10): 1536-1542.
117. Tian Y., Gao B., Morales V.L., Wu L., Wang Y., Munoz-Carpena R., Cao C., Huang Q., Yang L., 2012, Methods of using carbon nanotubes as filter media to remove aqueous heavy metals. *Chem. Eng. J.*, 210: 557-563.
118. Tian Y., Gao B., Wang Y., Morales V.L., Carpena R.M., Huang Q., Yang L., 2012, Deposition and transport of functionalized carbon nanotubes in water-saturated sand columns. *J. Hazard. Mat.*, 213: 265-272.
119. Tian Y., Gao B., Wu L., Munoz-Carpena R., Huang Q., 2012, Effect of solution chemistry on multi-walled carbon nanotube deposition and mobilization in clean porous media. *J. Hazard. Mat.*, 231: 79-87.
120. Yang Y., Zhang T., Zhang X., Liang D., Zhang M., Gao D., Zhu H., Huang Q., Fang H.H.P., 2012, Quantification and characterization of beta-lactam resistance genes in 15 sewage treatment plants from East Asia and North America. *Applied Microbiology and Biotechnology*, 95 (5): 1351-1358.
121. Zhang L.W., Petersen E.J., Zhang W., Chen Y.S., Cabrera M., Huang Q.G., 2012, Interactions of C-14-labeled multi-walled carbon nanotubes with soil minerals in water. *Environmental Pollution*, 166: 75-81.
122. Mao L., Colosi L.M., Gao S.X., Huang Q.G., 2011, Understanding ligninase-mediated reactions of endocrine disrupting chemicals in water: Reaction rates and quantitative structure-activity relationships. *Environ. Sci. & Technol.*, 45 (14): 5966-5972
123. Zhang L., Petersen E., Huang Q.\*, 2011, Phase distribution of <sup>14</sup>C-labeled multi-walled carbon nanotubes in aqueous systems containing model solids: Peat. *Environ. Sci. & Technol.*, 45 (4): 1356-1362.
124. Petersen E.J., Zhang L., Mattison N.T., O'Carroll D.M., Whelton A.J., Uddin N., Nguyen T., Huang Q., Henry T.B., Holbrook R.D., Chen K.L., 2011, Potential release pathways, environmental fate, and ecological risks of carbon nanotubes, *Environ. Sci. & Technol.*, 45(23): 9837-9856.
125. Petersen E.J., Pinto R.A., Zhang L., Huang Q., Landrum P.F., Walter W. J. Jr., 2011, Effects of polyethyleneimine-mediated functionalization of multi-walled carbon nanotubes on earthworm bioaccumulation and sorption by Soils, *Environ. Sci. & Technol.*, 45(8): 3718-3724.
126. Xiao S., Shen M., Ma R., Huang Q., Shi X.Y., 2011, Excellent copper (II) removal using zero-valent iron nanoparticle-immobilized hybrid electrospun polymer nanofibrous mats. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 381: 48-54.
127. Xiao S., Shen M., Ma R., Huang Q., Shi X.Y., 2011, Manipulation of the loading and size of zero-valent iron nanoparticles immobilized in electrospun polymer nanofibers, *J. Nanosci. & Nanotech.*, 11: 5089-5097.
128. Colosi L.M., Huang Q., Weber J. W. Jr., 2011, QSAR-assisted design of an environmental catalyst for enhanced estrogen remediation, *Chemosphere*, 81(7): 897-903.
129. Petersen E.J., Huang Q.G., Weber W. J. Jr., 2010, Relevance of Octanol-Water Distribution Measurement to the Potential Ecological Uptake of Multi-Walled Carbon Nanotubes, *Environ. Tox. & Chem.*, 29 (5): 1106-1112.
130. Xiao S., Shen M., Guo R., Huang Q., Wang S., Shi X., 2010, Fabrication of multi-walled carbon nanotube-reinforced electrospun polymer nanofibers containing zero-valent iron nanoparticles for environmental applications. *J. Materials Chem.*, 20 (27): 5700-5708.
131. Mao L., Lu J.H., Gao S.X., Huang Q.\*, 2010, Transformation of 17 $\beta$ -estradiol mediated by lignin peroxidase: The role of veratryl alcohol, *Arch. Environ. Conta. & Tox.*, 59 (1): 13-19.
132. Mao L., Lu J.H., Habteselassie M., Luo Q., Gao S., Cabrera M., Huang Q.\*, 2010, Ligninase-mediated removal of natural and synthetic estrogens from water: II. Reactions of 17 beta-estradiol, *Environ. Sci. & Technol.*, 44 (7): 2599-2604.
133. Mao L., Huang Q.\*, Luo Q., Lu J., Yang X., Gao S., 2010, Ligninase-mediated removal of 17 beta-estradiol from water in the presence of natural organic matter: Efficiency and pathways, *Chemosphere*, 80 (4): 469-473.
134. Lu J., Huang Q.\*, Mao L., 2009, Removal of acetaminophen using enzyme-mediated oxidative coupling processes: I. Reaction rates and pathways, *Environ. Sci. & Technol.*, 43: 7062-7067.
135. Lu J., Huang Q.\*, 2009, Removal of acetaminophen using enzyme-mediated oxidative coupling processes: II. Cross-coupling with natural organic matter. *Environ. Sci. & Technol.*, 43: 7068-7073.

136. Mao L., Huang Q.\*, Lu J., Gao S., 2009, Ligninase-mediated removal of natural and synthetic hormones from water: I. Reaction behaviors, *Environ. Sci. & Technol.*, 43: 274-279
137. Shi X., Wang S., Shen M.W., Antwerp M.E., Chen X.S., Li C., Petersen E.J., Huang Q., 2009, Multifunctional dendrimer-modified multi-walled carbon nanotubes: Synthesis, characterization, and In vitro cancer cell targeting and imaging, *Biomacromolecules*, 10: 1744-1750.
138. Liu X., O'Carroll D.M., Petersen E.J., Huang Q., Anderson C.L., 2009, Mobility of multi-walled carbon nanotubes in porous media, *Environ. Sci. & Technol.*, 43 (21): 8153-8158.
139. Xiao S., Wu S., Shen M., Guo R., Huang Q., Wang S., Shi X., 2009, Polyelectrolyte multilayer-assisted immobilization of zero-valent iron nanoparticles onto polymer nanofibers for potential environmental applications, *ACS Applied Materials & Interfaces*, 1 (12): 2848-2855.
140. Colosi L.M., Pinto R.A., Huang Q., Weber W.J.Jr., 2009, Peroxidase-mediated degradation of perfluorooctanoic acid, *Environ. Toxi. & Chem.*, 28: 264-271.
141. Shen M., Wang S., Shi X., Chen X., Huang Q., Petersen E.J., Pinto R.A., Baker J.R., Weber W.J. Jr., 2009, Polyethyleneimine-mediated functionalization of multiwalled carbon nanotubes: Synthesis, characterization, and In vitro toxicity assay, *J. Physi. Chem.*, 113: 3150-3156.
142. Huang Q., Shi X., Pinto R.A., Petersen E.J., Weber W.J. Jr., 2008, Tunable synthesis and immobilization of zero-valent iron nanoparticles for environmental applications, *Environ. Sci. & Technol.*, 42 (23): 8884-8889.
143. Petersen E.J., Huang Q., Weber W.J. Jr., 2008, Bioaccumulation of radio-labeled carbon nanotubes by *Eisenia foetida*. *Environ. Sci. & Technol.*, 42, 8, 3090-3095
144. Petersen E.J., Huang Q., Weber W.J. Jr., 2008, Ecological uptake and depuration of carbon nanotubes by *Lumbriculus variegatus*. *Environ. Health Perspective*, 16, 4, 496-500
145. Colosi L., Huang Q., Weber W.J.Jr., 2007, Validation of a two-parameter quantitative structure activity relationship as a legitimate tool for rational re-design of horseradish peroxidase, *Biotechnology and Bioengineering*, 98, 295-299.
146. Colosi L., Burlingame D.J., Huang Q., Weber W.J.Jr., 2007, Peroxidase-mediated removal of a polychlorinated biphenyl using natural organic matter as sole co-substrate, *Environmental Science & Technology*, 41 (3): 891-896.
147. Tang J.X., Petersen E.J., Huang Q., Weber W.J.Jr., 2007, Development of engineered natural organic sorbents for environmental applications: 3. Reducing PAH mobility and bioavailability in contaminated soil and sediment systems, *Environmental Science & Technology*, 41: 2901-2907.
148. Colosi L., Huang Q., Weber W.J.Jr., 2006, Quantitative structure activity relationship based quantification of the impacts of enzyme-substrate binding on rates of peroxidase mediated reactions of estrogenic phenolic chemicals, *Journal of the American Chemical Society*, 128: 4041-4047.
149. Tang J., Weber W.J.Jr., Huang Q., 2006, Development of engineered natural organic sorbents for environmental applications: I. Materials, approaches and characterizations. *Environmental Science & Technology*, 40: 1650-1656.
150. Huang Q., Weber W. J. Jr., 2005, Transformation of bisphenol A in peroxidase-mediated oxidative coupling reactions: Reaction products and pathway, *Environmental Science & Technology*, 39: 6029-6036.
151. Huang Q., Huang Q.G., Pinto R.A., Griebenow K., Schweitzer-Stenner R., Weber, W. J. Jr., 2005, Inactivation of horseradish peroxidase by phenoxyl radical attack, *Journal of the American Chemical Society*, 127, 1431-1437.
152. Huang Q., Tang J., Weber W. J. Jr., 2005, Precipitation of enzyme-catalyzed phenol oxidative coupling products: Background ion and pH effects. *Water Research*, 39: 3021-3027
153. Weber W. J. Jr., Huang Q., Pinto R.A., 2005, Reduction of disinfection by-product formation in potable water treatment via molecular reconfiguration of fulvic constituents of background organic matter, *Environmental Science & Technology*, 39: 6446-6452
154. Huang Q., Pinto R.A., Burlingame D.J., Tang J., Weber W. J. Jr., 2004, Enhanced removal of natural organic matter via peroxidase-mediated oxidative coupling, *Water Science & Technology: Water Supply*, 4(4): 33-40.
155. Huang Q., Weber W. J. Jr., 2004, Peroxidase-catalyzed oxidative coupling of phenol in the presence of model inorganic and organic solid phases, *Environmental Science & Technology*, 38(19): 5238-5245.
156. Huang Q., Weber W. J. Jr., 2004, Interactions of soil derived dissolved organic matter with phenol in peroxidase-catalyzed oxidative coupling reactions. *Environmental Science & Technology*, 38(1): 338-344.

157. Weber W. J. Jr., Huang Q., 2003, Inclusion of persistent organic pollutants in humification processes: Direct chemical incorporation of phenanthrene via oxidative coupling, *Environmental Science & Technology*, 37(18): 4221-4227.
158. Huang Q., Selig H., Weber W. J. Jr., 2002, Peroxidase-catalyzed oxidative coupling of phenols in the presence of geosorbents: Rates of non-extractable product formation. *Environmental Science & Technology*, 36(4): 596-602.
159. Poon C.S., Huang Q., Fung P.C., 1999, Degradation kinetics of cuprophenyl yellow RL by UV/H<sub>2</sub>O<sub>2</sub>/ultrasonication (US) process in aqueous solution, *Chemosphere*, 38(5): 1005-1014.
160. Fung P. C., Huang Q., Tsui S. M., Poon C. S., 1999, Treatability study of organic and color removal in desizing/dyeing wastewater by UV/US system combined with hydrogen peroxide, *Water Science & Technology*, 40(1): 153-160.
161. Song W., Huang Q., Wang L., 1999, beta-Cyclodextrin (beta-CD) influence on the biotoxicities of substituted benzene compounds and pesticide intermediates. *Chemosphere*, 38(4), 693-698.
162. Cao J., Wei L., Huang Q., Wang, L., Han S., 1999, Reducing degradation of azo dye by zero-valent iron in aqueous solution, *Chemosphere*, 38(3): 565-571.
163. Gao S., Wang L., Huang Q., 1999, Synthesis of carboxymethyl-cyclodextrin and its solubilization on halogenated aromatic hydrocarbons, *Environmental Chemistry*, 18(2): 131-135.
164. Gao S., Wang L., Huang Q., 1998, Study in the solubilization effect of  $\beta$ -cyclodextrin on polycyclic aromatic hydrocarbons, *Environmental Chemistry*, 18(4): 365-369.
165. Gao S., Wang L., Huang Q., Han S., 1998, Solubilization of polycyclic aromatic hydrocarbons by beta-cyclodextrin and carboxymethyl-beta-cyclodextrin, *Chemosphere*, 37(7): 1299-1305.
166. Huang Q., Song W., Wang L., 1997, Quantitative relationship between the physiochemical characteristics as well as genotoxicity of organic pollutants and molecular autocorrelation topological descriptors. *Chemosphere*, 35(12): 2849-2855.
167. Zheng S., Huang Q., Zhou J., Wang B., 1997, A study on dye photoremoval in TiO<sub>2</sub> suspension solution, *Journal of Photochemistry and Photobiology A: Chemistry*, 108(2-3): 235-238.
168. Jin L., Dai J., Wang L., Wei Z., Huang Q., Zhang Z., 1997, Determination and estimation of the sorption of benzaldehydes on soil, *Chemosphere*, 35 (11): 2707-2712.
169. Song W., Wu C., Zhu C., Huang Q., Wang L., 1997, Quantitative relationship between the physicochemical parameters of organic pollutants and molecular autocorrelation topological descriptors. *J. Nanjing University*, 33(3): 375-380.
170. Huang, Q., Wang X., Wang L., 1996, Quantitative relationship between the bioactivities of organic pollutants and molecular autocorrelation topological descriptors. *Acta Scientiae Circumstantiae*, 16(2) 195-202.
171. Huang Q., Kong L., Wang L. 1996, Applications of frontier molecular orbital energies in QSAR studies. *Bulletin of Environmental Contamination and Toxicology*, 56(5): 758-765.
172. Huang Q., Kong L.R., Liu Y.B., Wang L.S., 1996, Relationship between molecular structure and chromosomal aberrations in in vitro human lymphocytes induced by substituted nitrobenzenes, *Bulletin of Environmental Contamination and Toxicology*, 57(3): 349-353.
173. Chen J., Huang Q., Wang L., Hu H., Zhang Z., 1996, Using AM1 hamiltonian and factor analysis in prediction of partition properties for phenylthio, phenylsulfinyl and phenylsulfonyl acetates, *Chemosphere*, 33(12): 2565-2575.
174. Chen J., Kong L., Zhu C., Huang Q., Wang L., 1996, Correlation between photolysis rate constants of polycyclic aromatic hydrocarbons and frontier molecular orbital energy. *Chemosphere*, 33 (6): 1143-1150.
175. Huang Q., Kong L., Wang X., Liang L., 1996, A study on factors of photodecomposition of six sulfonylurea herbicides in aqueous solution, *J. Nanjing University*, 32: 111-115.
176. Huang, Q., Wang, L., Han, S., 1995, The genotoxicity of substituted nitrobenzenes and the quantitative structure-activity relationship studies. *Chemosphere*, 30(5): 915-923.
177. Huang, Q., Wang X., Liao Y., Kong L., Han S., 1995, Wang L., Discriminant analysis of the relationship between genotoxicity and molecular structure of organochlorine compounds, *Bulletin of Environmental Contamination and Toxicology*, 55(6): 796-801.
178. Huang Q., Zhao Y., Zhang A., Wang L., 1995, Relationship between acute toxicity to aquatic organism of substituted aromatic compounds and their molecular orbital energy, *Chinese Science Bulletin*, 40(4): 351-353.

179. Zhang D., Huang Q., Han S., Wang L., 1994, Accurate and empirical calculations of molecular surface areas and its applications in QSAR, *Environmental Chemistry*, 13(3): 234-238.
180. Huang Q., Han S., Wang L., 1994, The estimation method for the toxicity of chlorinated aromatics on the basis of frontier molecular orbital energy. *Environmental Chemistry*, 13(3) 246-249.
181. Wang L., Huang Q., Han S., 1994, The toxicity of sulfur derivatives of chloronitrobenzene and quantitative structure-activity relationships, *Environmental Chemistry*, 13 (2): 123-128.
182. Huang Q., Wang L., Han S., Wang G., Gao H., 1993, The quantitative relationship between the molecular structures and hydrophobic parameters of halogenated arenes, *Chemical Journal of Chinese Universities*, 14(6): 826-830.
183. Wang L., Huang Q., Han S., 1993, Pattern-recognition analysis on the reductive dehalogenation potency of halogenated aromatic hydrocarbons, *Chinese Science Bulletin*, 38(24): 2249-2251.
184. Huang, Q., Wang L., 1992, Bioconcentration of organic chemicals in aquatic organisms, *Environmental Monitoring Management and Technology*, 4: 13-17.
185. Wang L., Wang X., Huang Q., 1992, Molecular surface areas of PAHs and di-region theory, *Environmental Chemistry*, 11(4): 1-6.
186. Wang X., Huang Q., Wang, L., 1991, A rapid method for measuring the bioconcentration factor, *Environmental Chemistry*, 10(4): 44 - 49.

#### IV. Bulletins or Reports

1. Huang Q., Electrochemical Approaches to Treatment of PFAS in Plating Wastewater, AESF quarterly reports, a total of ten, 2021-2024.
2. Huang Q., Huang C-H., Li K., Chen Y. Hawkins G., Improved Methods to Manage PFASs for Small Water and Wastewater Treatment Systems in Rural Areas (R84008001), 2020-2024, Reports to U.S. EPA, a total of three.
3. Huang Q., Electrochemical Oxidation of Perfluoroalkyl Acids in Still Bottoms from Regeneration of Ion Exchange Resins, SEDRP-1320 Final Report, 2020.
4. Chiang D., Huang Q, Liang S., Zhou J., An Electrocoagulation and Electrooxidation Treatment Train to Degrade Perfluoroalkyl Substances and Other Persistent Organic Contaminants in Ground Water, SERDP-1278 Progress and Final Reports, a total of seven reports, 2018-2020.
5. A Novel Reactive Electrochemical Membrane System for Treatment of Mixed Contaminants, SERDP-2717 Final report, 2019.
6. Huang Q, Dora Chiang, David Woodward, In-situ Enzymatic Oxidative Treatment for Perfluorinated Compounds quarterly reports, a total of twenty, 2012-2017.
7. Huang Q., Remediation of Perfluoroalkyl Contaminated Aquifer using an In-Situ Two-Layer Barrier: Laboratory Batch and Column Study, Report to DoD SERDP, 2012.
8. Huang Q., Environmental Behaviors of Solubilized Carbon Nanotubes in Aquatic Systems: Transformation, Sorption, and Toxicity Exposure, A total of five reports to EPA, 2009-2013.
9. Huang Q. A novel biodehatching method-research, reports to GCSAA, a total of six, 2008-2011.

#### V. Professional Society Proceedings and Abstracts

1. Ji Y., Sui Y., Wang Y., Dong S., Huang Q, 2023, Electrochemical degradation of per- and polyfluoroalkyl acids (PFAS) on titanium suboxide anodes, SERDP/ESTCP symposium, DC.
2. Wang Y., Warner M., Huang Q., 2023, Electrochemical oxidation of per- and polyfluoroalkyl substances (PFAS) in concentrated wastes resulting from separation and concentration technologies, SERDP/ESTCP symposium, DC.
3. Munir U., Ji Y., Huang Q., 2023, Degradation of per- and polyfluoroalkyl substances (PFAS) by enzyme catalyzed oxidative humification reactions, SERDP/ESTCP symposium, DC.
4. Warner M., Wang Y., Ji Yu, Huang Q., 2023, A novel circular operation approach to a treatment train coupling ion exchange resins and electrochemical oxidation for PFAS treatment in a closed cycle with minimized waste discharge, SERDP/ESTCP symposium, DC.
5. Wang Y., Warner M., Huang Q., 2023, Removal and destruction of PFAS in water by a treatment train comprising foam fractionation and electrochemical oxidation, ACS Fall annual meeting, San Francisco, CA.
6. Warner M., Wang Y., Hawkins G., Huang Q., 2023, Coupling removal and destruction technologies: Application of ion exchange resins and electrochemical oxidation in the treatment of PFAS, ACS Fall annual meeting, San Francisco, CA.

7. Munir U, Huang Q, 2023, Degradation of 6:2 Fluorotelomer sulfonate acid (FTS) by enzyme catalyzed oxidative humification reactions, ACS Fall annual meeting, San Francisco, CA.
8. Huang Q., 2022, Electrochemical degradation of perfluoroalkyl acids by doped Magnéli phase titanium suboxide anodes, *SERDP/ESTCP symposium*, DC.
9. Wang Y, Huang Q., 2022, Treatment of PFAS by treatment train comprising foam fractionation and electrooxidation, *SERDP/ESTCP symposium*, DC.
10. Huang Q., 2021, Electrochemical degradation of perfluoroalkyl acids by Magnéli phase titanium suboxide anodes, *SERDP symposium DC/Virtual*.
11. Huang Q., 2021, Degradation of perfluoroalkyl acids on titanium suboxide anodes: Impact of surface fluorination, *SERDP symposium DC/Virtual*.
12. Huang Q., 2020, Electrochemical Oxidation of Perfluoroalkyl Acids in Still Bottoms from Regeneration of Ion Exchange Resins. In *SERDP symposium*. DC/Virtual.
13. Huang Q., 2020, Degradation of perfluoroalkyl acids on titanium suboxide anodes. In *SERDP symposium*. DC/Virtual.
14. Huang Q., 2020, An Electrocoagulation and Electrooxidation Treatment Train to Degrade Perfluoroalkyl Substances and Other Persistent Organic Contaminants in Ground Water. In *SERDP Symposium*. DC/Virtual.
15. Huang Q., 2019, Electrooxidation of poly- and perfluoroalkyl substances in still bottoms from regeneration of ion exchange resins. In *SERDP/ESTCP symposium*.
16. Huang, Q., 2019, Degradation of Perfluorooctanesulfonate in a Reactive Electrochemical Membrane System Based on Titanium Suboxides. In *SERDP/ESTCP symposium*.
17. Hung Y. -C., Huang Q., & Qi H., 2019, Efficacy of activated persulfate for inactivating pathogenic bacteria. In *12th Mini Summit on "Collaborations and International Partnerships: Keys to Sustainable Global Food Systems"*. Auburn, AL.
18. Wang Y., Huang Q, 2019, Electrochemical Oxidation of Perfluorooctanesulfonate (PFOS) on Different Porous Magnéli Phase Titanium Sub-oxides Anodes. In *American Chemical Society Annual Meeting*, San Diego, CA.
19. Wang B., Wang Y., Huang Q., 2019, Removal of multidrug-resistant Salmonella, antibiotics and antibiotics resistance genes in water by electrochemical oxidation. In *American Chemical Society Annual Meeting*, San Diego, CA.
20. Shi H., Wang Y., Huang Q, 2019, Removal and Recovery of Perfluoroalkyl Substances in Water by Electrocoagulation. In *American Chemical Society Annual Meeting*, San Diego, CA.
21. Wang L., Wang Y., Lu J., Huang Q., 2019, Effects of chloride on electrochemical oxidation of perfluorooctane sulfonate. In *Fall National Meeting and Exposition of the American-Chemical-Society (ACS)*. San Diego, CA.
22. Huang Q., 2019, Electrooxidation of perfluoroalkyl acids by porous titanium suboxide anode. In *SERDP/ESTCP symposium*, Washington DC.
23. Huang Q., 2018, Electrooxidation of perfluoroalkyl acids by porous titanium suboxide anode. In *SERDP/ESTCP symposium*, Washington DC.
24. Gochnour B., Suiter D., Davis J., Huang, Q., 2018, Potential Use of Argentine ant, *Linepithema humile*, semiochemicals for the delivery of an acute toxicant. In *82nd Annual Meeting - Georgia Entomological Society*. Unicoi State Park and Lodge.
25. Huang, Q., 2017, Electrochemical Degradation of Perfluoroalkyl Acids by Porous Titanium Suboxides Anode. In *DoD SERDP/ESTCP conference*. Washington DC.
26. Huang Q., Liang S., 2017, Coupling Technologies to Treat High Levels of PFAS in Regenerant Wastes. In *Battelle Conference*, New Orleans, Louisiana.
27. Huang Q., 2016, Degradation of Perfluorooctanoic Acid and Perfluorooctane Sulfonate by Enzyme Catalyzed Oxidative Humification Reactions. In *American Geological Union*, San Francisco, CA.
28. Liang S., Huang Q., 2016, Electro-oxidation of Tetracycline by a Magnéli Phase  $\text{Ti}_4\text{O}_7$  Anode. In *American Chemical Society Annual Meeting*, Philadelphia, PA.
29. Wang X., Huang, 2016, The laccase-mimicking activity of manganese oxide nanomaterials for pollutant conversion. In *American Chemical Society Annual Meeting*, Philadelphia, PA.
30. Liang S. Huang Q, 2016, Laccase-Catalyzed Degradation of Tetracycline in the presence of natural mediators. In *American Chemical Society Annual Meeting*, Philadelphia, PA.
31. Huang Q., 2016, Electrochemical degradation of PFOA and PFOS by porous  $\text{Ti}_4\text{O}_7$  anode in batch and filtration modes. In *American Chemical Society Annual Meeting*, Philadelphia, PA

32. Huang Q., Luo Q., 2016, Degradation of Perfluorooctane Sulfonate by Enzyme Catalyzed Oxidative Humification Reactions, ACS Spring Annual Meeting, San Diego, CA.
33. Chiang D., Lin H., Huang Q., Niu J., Woodward D., 2015, Treatment of PFOS and PFOA in Groundwater Using Sequential Electrocoagulation and Electro-oxidation Technologies, FLUOROS 2015 conference.
34. Luo Q., Chiang D., Woodward D., 2015, Remediation of Perfluorooctanoic Acid with Enzyme Catalyzed Oxidative Humification Reactions, FLUOROS 2015 conference.
35. Luo Q., Huang Q. 2015, In-situ Remediation of Perfluorooctanoic Acid via Enzyme-Catalyzed Oxidative Humification Reaction, Battelle Conference.
36. Huang Q. 2014, Decomposition of Perfluorinated Alkyl Acids in Enzyme-catalyzed Oxidative Humification Reactions, SETAC meeting.
37. Luo Q., Singh R., Huang Q., 2013, Transformation of Perfluorinated Compounds during Enzyme Catalyzed Oxidative Humification reactions, SSSA annual meeting.
38. Huang Q., Zhang L., Petersen E., 2013, Degradation of multiwall carbon nanotubes by bacteria, IWA Nanotechnology conference, Nanjing, China
39. Luo Q., Singh R., Huang Q., 2013, Remediation of Perfluorooctanoic Acid Contaminated Aquifer Using an In-Situ Permeable Reactive Barrier, Battelle Conference.
40. Huang Q., 2012, Laccase-Catalyzed Removal of Perfluorooctanoic Acid, Battelle conference.
41. Huang Q., 2012 August, Environmental Occurrence and Remediation of Perfluorinated Chemicals, GA water conference.
42. Huang Q., Zhang L., 2012 March, Microbial degradation of multi-walled carbon nanotubes, ACS Spring Annual Meeting.
43. Huang Q., 2012, Enzymatic humification reactions: An alternative scheme to the removal of emerging micropollutants from water, ACS Spring Annual Meeting.
44. Huang Q., Luo Q., Zhou L., November 2011, Remediation of Perfluoroalkyl Contaminated Aquifer Using an In-Situ Two-Layer Barrier, DoD Environmental Research Program Conference, Department of Defense, Washington DC.
45. Huang Q., Luo, Q., Singh R., October 2011, An alternative scheme to remove emerging micropollutants from water: Enzyme catalyzed oxidative coupling processes, ASA, CSSA & SSSA International Annual Meeting, San Antonio, TX.
46. Singh R., Huang Q., October 2011, Transformation of antibiotics in soil mediated by laccase and horseradish peroxidase, ASA, CSSA & SSSA International Annual Meeting, San Antonio, TX.
47. Zhou L., Singh R., Huang Q., October 2011, Transformation of hormones in soil mediated by white rot fungi, ASA, CSSA & SSSA International Annual Meeting, San Antonio, TX.
48. Sidhu S., Huang Q., Raymer P., Carrow R., October 2011, Use of fungal laccase to facilitate biodegradation, ASA, CSSA & SSSA International Annual Meeting, San Antonio, TX.
49. Sidhu S., Huang Q., October, 2011, Enzymatic pretreatment of lignocellulosic biomass for bioethanol production, ASA, CSSA & SSSA International Annual Meeting, San Antonio, TX.
50. Zhang L., Huang Q., Habteselassie M. Y., Petersen E., March 2011, Biodegradation of <sup>14</sup>C-labeled multi-walled carbon nanotubes. *American Chemical Society 241th National Meeting*, Anaheim, CA.
51. Huang Q., Lu J., March 2011, Enzyme catalyzed oxidative coupling processes: An alternative scheme to address emerging micropollutants in water. *American Chemical Society 241th National Meeting*, Anaheim, CA
52. Sidhu S., Huang Q., Raymer P.L., Carrow R. N., February 2011, Use of fungal laccases for biodegradation. American Society of Agronomy - Southern Branch meeting, Corpus Christi, TX.
53. Rashmi Singh, Huang Q, February 2011, Enzyme mediated transformation of estrogens in soil, Soil Science Society of Georgia annual meeting.
54. Sidhu S., Huang Q., Raymer P.L., Carrow R. N., November 2010, Biodegradation using fungal laccases. *ASA-CSSA-SSSA international annual meeting*, Long Beach, CA.
55. Singh R., Huang Q., November 2010, Enzyme-mediated transformation of 17 beta-estradiol in soil. *ASA-CSSA-SSSA international annual meeting*, Long Beach, CA
56. Zhang L., Huang Q., Petersen E., Habteselassie M. Y., August 2010, Microbial degradation of <sup>14</sup>C-labeled Multi-walled Carbon Nanotubes. *American Chemical Society 240th National Meeting*, Boston, MA.
57. Zhang L. Petersen E., Huang Q., 2010, Phase distribution of <sup>14</sup>C-labeled multi-walled carbon nanotube in aquatic systems. *Combined Carolinas and Southeastern SETAC Meeting*, Athens GA.

58. Huang Q., Zhang L., Petersen E., August 2010, Phase distribution of <sup>14</sup>C-labeled multi-walled carbon nanotubes in aqueous systems containing model solids. *American Chemical Society 240th National Meeting*, Boston, MA.
59. Bringolf R., Fauver R., Lu J., Huang Q., Smith J., January 2010, Preliminary analysis of PFCs in biota from the Conasauga River. *Annual Meeting of the Georgia Chapter of the American Fisheries Society*, Perry GA.
60. Petersen E., Roger P., Mai D.J., Landrum P., Zhang L., Huang Q., Shi X., Weber W.J.Jr., 2010, Uptake and elimination behaviors of polyethyleneimine (PEI)-coated multi-walled carbon nanotubes by *Eisenia foetida* and *daphnia magna*. *3rd International Conference on Advanced Nano Materials*, Agadir, Morocco.
61. Huang Q. Zhang L., November 2010, The environmental behaviors of carbon nanotubes in aquatic systems. *EPA Grantees Meeting*, Portland.
62. Huang Q., Zhang L., June 2010, Petersen E. Phase distribution of <sup>14</sup>C-labeled multi-walled carbon nanotube in aquatic systems. *The Asia/Pacific chapter of the Society of Environmental Toxicology and Chemistry 2010 Conference*, Guangzhou, China.
63. Zhang L., Huang Q., October 2009, Petersen E. Bioaccumulation of <sup>14</sup>C-labeled nanotubes by model ecological receptors. *ASA-CSSSA-SSSA international annual meeting*, Pittsburg, PA.
64. Huang Q. Mao L. Lu J., October 2009, Reactions of 17 $\beta$ -estradiol mediated by lignin peroxidase: products phase distribution. *ASA-CSSSA-SSSA international annual meeting*, Pittsburg.
65. Luo Q., Lu J., Adams P., Huang Q., October 2009, Watershed scale fate and transport of hormones from poultry waste *ASA-CSSSA-SSSA international annual meeting*, Pittsburg.
66. Lu J., Huang Q., March 2009, Removal of acetaminophen using enzyme-catalyzed oxidative coupling processes. *American Chemical Society Annual Meeting*, Salt Lake City.
67. Bringolf R.B., Fauver R., Lu J., Huang Q., Smith J. 2009, Preliminary analysis of PFCs in biota from the Conasauga River, GA, USA. *35th Annual Meeting of the Society of Environmental Toxicology and Chemistry*.
68. Mao L., Huang Q., 2009, Ligninase mediated removal of natural and synthetic hormones. *America Agronomy Society southern region meeting*, Atlanta.
69. Huang Q., Zhang L., Petersen, E., 2009, Phase distribution of solubilized multiwall carbon nanotubes in aqueous systems containing solid organic matter. *U.S. EPA grantee meeting*, LasVegas.
70. Mao L., Huang Q., Lu J., Gao S. 2008., Ligninase mediated removal of natural and synthetic hormones from water. *American Chemical Society 236th National Meeting*, Boston, MA.
71. Colosi L., Huang Q., Weber, W.J.Jr., 2008, Validation of a quantitative structure-activity relationship as means to redesign an enzyme for enhanced pollutant degradation. *American Chemical Society 235th National Meeting*.
72. Huang Q., Mao L., Lu J., October 2008, Reactions of natural and synthetic hormones mediated by soil enzymes. *ASA-CSSSA-SSSA international annual meeting*, Houston.
73. Lu J., Huang Q., Mao L., October 2008, Occurrence and transformation of hormones from chicken litter in land application. *ASA-CSSSA-SSSA international annual meeting*, Houston.
74. Mao L., Huang Q., Lu J., Gao S., 2008, Peroxidase-mediated removal of estradiol in the presence of natural organic matter. *American Water Works Association Annual Conference*, Atlanta.
75. Lu J., Huang Q., Mao L., 2008, Laccase mediated removal of 17 $\beta$ -estradiol (E2) in water. *American Water Works Association Annual Conference*, Atlanta.
76. Liu X., D.M. O'Carroll, E. Petersen, Huang Q., Anderson C.L., 2008, Mobility of multiwalled carbon nanotubes in porous media. *American Chemical Society 235th National Meeting*.
77. Petersen, E.J., Huang, Q., Weber, W. J., Jr., and Kukkonen, J. V. K. NanoEco, 2008, Ecological Uptake and Depuration of Carbon-14 Nanotubes. *Nanoparticles in the Environment Implications and Applications, Organized by Empa*, Switzerland
78. Huang Q., Shi X., Pinto, R.A., Petersen, E.J.; Weber, W.J., Jr., 2007, Tunable synthesis and immobilization of iron nanoparticles for environmental applications. *American Chemical Society 233th National Meeting*, Chicago.
79. Petersen E.J., Huang Q., Weber W. J., Jr., 2007, Synthesis of carbon-14 labeled carbon nanotubes and quantification of their uptake by ecological receptors. *American Chemical Society 233th National Meeting*, Chicago.

80. Petersen E.J., Huang Q., Weber W. J., Jr., 2007, Uptake and Depuration Behaviors of Radioactively Labeled Carbon Nanotubes by *Lumbriculus variegatus*. *American Chemical Society 234<sup>th</sup> National Meeting*.
81. Liu X., D.M. O'Carroll, E. Petersen, Huang Q., 2007., and Anderson C.L. Mobility of multi-walled carbon nanotubes in porous media. *American Geophysical Union 2007 Fall Meeting*.
82. Petersen E. J., Huang Q., Weber W. J. Jr., 2006, Synthesis of carbon-14 labeled multi-walled carbon nanotubes and quantification of their uptake by ecological receptors *American Chemical Society 231<sup>th</sup> Annual Meeting*,
83. Petersen, E. J., Huang Q., Weber W. J.Jr., 2005, Absorption rate and bioavailability of carbon nanotubes to human and ecological receptors. *American Chemical Society 230<sup>th</sup> Annual Meeting*.
84. Huang, Q., Shi X.Y., R. Pinto, E. J. Petersen, Weber W.J.Jr., 2005, Use of polyelectrolyte multilayering to synthesize and immobilize monodispersed zero-valent iron nanoparticles for optimized reactivity in environmental applications. *American Chemical Society 230<sup>th</sup> Annual Meeting*.
85. Weber W. J. Jr., Huang Q., Pinto R.A., Burlingame D.J., Tang J.X., 2004, Enhanced removal of natural organic matter via molecular reconfiguration. *American Chemical Society 228<sup>th</sup> Annual Meeting*.
86. Huang Q., Huang Q.G., Pinto R.A., Griebenow K., Schweitzer-Stenner R., Weber W.J., 2004, Mechanism of enzyme inactivation during phenol oxidation mediated by horseradish peroxidase. *American Chemical Society 228<sup>th</sup> Annual Meeting*.
87. Huang Q., Weber W. J. Jr., 2004, Transformation of bisphenol A in peroxidase-mediated oxidative coupling reactions: Pathway and mechanisms. *American Chemical Society 228<sup>th</sup> Annual Meeting*.
88. Huang, Q., Weber W. J. Jr., 2003, Reactive inclusion of phenanthrene in the oxidative coupling reactions of phenol: Implications for irreversible sequestration via humification. *American Chemical Society 226<sup>th</sup> Annual Meeting*.
89. Huang Q., Weber W. J. Jr., 2003, Peroxidase-catalyzed oxidative coupling of phenols in the presence of geosorbents. *American Chemical Society 225<sup>th</sup> Annual Meeting*.
90. Huang Q., Weber W. J. Jr., 2002, Peroxidase-catalyzed oxidative coupling of phenols in the presence of geosorbents: Effects of sorbent chemical characteristics. *American Chemical Society 224<sup>th</sup> Annual Meeting*.
91. Huang Q., Herren T.B., Weber W. J. Jr., 2002, Peroxidase-catalyzed oxidative coupling of phenols in the presence of geosorbents: effects of ionic conditions and pH on product precipitation. *76<sup>th</sup> ACS Colloid & Surface Science Symposium*.
92. Huang Q., Selig H., Walter W.J.Jr., 2000, Influence of soils on the horseradish peroxidase-catalyzed oxidative coupling of phenol. *American Chemical Society 220<sup>th</sup> Annual Meeting*.
93. Huang Q., Selig H., Keinath M.T. II, Weber W. J. Jr., 2000, Horseradish peroxidase-catalyzed phenol coupling in the presence of soil: Effects of enzyme inactivation, *American Chemical Society 219<sup>th</sup> Annual Meeting*.

#### VI. Other: Patent

1. Huang, Qingguo, Sidhu, Sudeep, Raymer, Paul L., Carrow, Robert N., Methods and Compositions Using Fungal Laccases to Reduce Turf Thatch, US Patents #8,919,039 (issued in 2014)
2. Huang, Qingguo, Sidhu, Sudeep, Raymer, Paul L., Carrow, Robert N., Methods and Compositions Using Fungal Laccases to Reduce Turf Thatch Continuation in part, US Patent #10,053,674 (issued in 2018).
3. Huang Q., Carrow R., Raymer P., Methods and compositions using enzymes to reduce soil water repellency, US Patent #9,944,854 (issued in 2018), Australian Patent #2013267512 (issued in 2017).
4. Huang Q. Lin H., Niu J., Methods and systems for electrochemical oxidation of polyfluoroalkyl and perfluoroalkyl contaminants, US Patent #11,512,011 (issued in 2022), Australian Patent# 2017313906 (issued in 2022), Exclusively licensed. Pending national phase applications in New Zealand, Europe, Canada.
5. Niu J., Lin H., Huang Q., Chen Z., 2014, Method for removing perfluorinated compounds by concentration and separation, US Patent# 0360975 (issued in 2015).
6. Huang Q, Shi H. Huang E. 2020, Reactive Electrochemical membrane system and methods of making and using, Publication# WO2020176867, pending.
7. Huang Q. Lin H., Niu J., Methods and systems for electrochemical oxidation of polyfluoroalkyl and perfluoroalkyl contaminants Continuation in Part, Publication# US20230322589, Pending.

#### D. CREATIVE CONTRIBUTION OTHER THAN PUBLICATIONS



**Radio/TV/Journal Programs:**

Interviewed by WKEU radio, Griffin, GA, May 2009.  
 Interviewed by Georgia Public Broadcasting Radio, 2012.  
 Interviewed by WKEU radio, Griffin, GA, May 2018.  
 Interviewed by WABE radio (NPR network), Oct 2018.  
 Interviewed by Atlanta Journal of Constitution, Oct 2018.  
 Interviewed by WABE radio (NPR network), Oct 2022.  
 Interviewed by Atlanta Journal of Constitution, Oct 2022.  
 Featured by WSB-TV, September 2023.  
 Interviewed by WABE radio (NPR network), Dec 2023.

**E. GRANTS (Funded)**

Year	#	Grant Monies	\$Total	\$ to Huang
2007	1	<b>UGA startup</b> , Environmental Behaviors and Risks of Estrogens and Carbon Nanotubes in Soil/Water Systems, PI Huang	\$70,000	\$70,000
	2	<b>CAES Contingency</b> , Size-dependent Behaviors of Carbon Nanotubes: Environmental Transport and Bioavailability, PI Huang	\$15,000	\$15,000
	3	<b>EPA Star</b> , Fate of Hormones in Waste from Concentrated Broiler Feeding Operations, PI Cabrera	\$695,620	\$20,000
	4	<b>EPA Star</b> , Carbon Nanotubes: Environmental Dispersion States, Transport, Fate, and Bioavailability, PI Weber, Co-PI Huang	\$371,886	
	5	<b>Graham Environmental Sustainability Institute</b> , Nanomaterials in the Aquatic Environment: Ecological Uptake and Toxicology, PI Weber, Co-PI Huang	\$158,865	
	6	<b>EPA VA HUD</b> , Environmental Study for Turf Grass, PI Gil Landry	\$400,000	\$13,591
2008	7	<b>Golf Course Superintendent Association of America</b> , A Novel Method to Facilitate Biodethatching Using Fungal Laccases, PI Huang, Co-PI Carrow, Raymer, Waltz	\$50,000	\$50,000
	8	<b>EPA Region 4</b> , Watershed Scale Fate and Transport of Hormones from Land Application of Poultry Waste, PI Adams, Co-PI Huang	\$67,615	\$60,000
	9	<b>Faculty seed</b> , Development of analytical methods for pharmaceuticals, PI Huang	\$10,000	\$10,000
	10	<b>GA EPD</b> , Preliminary analysis of perfluorinated compounds in environmental samples from the Lower Conasauga River, PI Bringolf, Co-PI Huang	\$25,000	\$10,000
2009	11	<b>EPA STAR</b> , Environmental Behaviors of Solubilized Carbon Nanotubes in Aquatic Systems: Transformation, Sorption, and Toxicity Exposure, PI Huang	\$383,376	\$383,376
2010	12	<b>Georgia Sea Grant</b> , Oyster Spat Stick Communities to Improve Coastal Water Quality, PI Black, Co-PI Lipp, Huang	\$150,000	\$10,000
2011	13	<b>DoD SERDP</b> , Remediation of Perfluoroalkyl Contaminated Aquifer using an In-Situ Two-Layer Barrier: Laboratory Batch and Column Study, PI Huang	\$150,000	\$150,000
2012	14	<b>U.S. Air Force Civil Engineering Center</b> , In-situ Enzymatic oxidative treatment for perfluorinated compounds, PI Huang	\$1000,000	\$370,000
	15	<b>USDA</b> , Impacts of on-site wastewater treatment systems on water quality and quantity in urbanizing watersheds, PI Habteselassie	\$567,000	\$25,000

Year	#	Grant Monies	\$Total	\$ to Huang
2013	16	<b>Aquatrols Inc.</b> , Enzyme application for organic matter control in thatch/mat layer. PI. Raymer	\$40, 000	\$20,000
	17	<b>US. Golf Association</b> , Enzyme technology to alleviate soil water repellency in turfgrass situations. PI Raymer	\$40,000	\$20,000
2014	18	<b>CASE Instrument improvement</b> , purchase of HPLC-MS/MS, PI Huang	\$240,000	\$240,000
2015	19	<b>AECOM Inc.</b> , Enzyme oxidation technology for surface water sheen mitigation, PI Huang	\$35,000	\$35,000
	20	<b>Golf Course Superintendent Association of America</b> , A novel enzymatic approach to alleviate soil water repellency in turfgrass. PI Raymer	\$40,000	\$20,000
	21	<b>CASE Edge Funds</b> , Use of electrolyzed water for degradation and removal of chemical pesticide residues on fruit and vegetable surfaces, PI Huang	\$10,000	\$10,000
2016	22	<b>Air Force Civil Engineering Center</b> , 2016-2021, Coupling ion-exchange resin with electrochemical treatment for complete separation and destruction of PFOS and PFOA in groundwater. PI Mora	\$940K	\$300K
2017	23	<b>DoD SERDP</b> , 2017-2020, A novel reactive electrochemical membrane system for treatment of mixed contaminants. PI Huang	\$200K	\$200K
2018	24	<b>DoD SERDP</b> , 2018-2021, Electrochemical oxidation of perfluoroalkyl acids in still bottoms from regeneration of ion exchange resins. PI Huang	\$200K	\$200K
	25	<b>DoD SERDP</b> , 2018-2021, An electrocoagulation and electrooxidation treatment train to degrade perfluoroalkyl substances and other persistent organic contaminants in ground water. PI. Chiang	\$900,000	\$350K
2019	26	<b>Georgia Research Alliance</b> , 2019-2022, Enzymatic dethatching approach. PI Raymer	\$50,000	\$40K
2020	27	<b>US. EPA, National Priorities Program</b> , 2020-2024, Improved methods to manage PFASs for small water and wastewater treatment systems in rural areas. PI Huang	\$2,173,000	\$402K
	28	<b>DoD SERDP</b> , 2020-2024, Treatment of per- and polyfluoroalkyl substances using novel reactive electrochemical membrane systems based on titanium suboxide materials. PI Huang	\$700,000	\$700K
2021	29	<b>US. EPA, National Priorities Program</b> , 2021-2024, Co-PI, \$1,498K. Assessing biosolid treatment processes on pollutant environmental fate and plant uptake following land application. PI Li	\$1,498,000	\$100K
	30	<b>NASF</b> , 2021-2024, Electrochemical approaches to treatment of PFAS in plating wastewater. PI Huang	\$75,000	\$75K
	31	<b>US. EPA, STAR Program</b> , 2021-2024, Co-PI, \$750K. Development of a Quantitative Adverse Outcome Pathway (qAOP) Network to Assess Neurodevelopmental Toxicity of Per- and Polyfluoroalkyl Substances	\$750,000	\$35K

Year	#	Grant Monies	\$Total	\$ to Huang
2022	32	DoD SERDP, 2022-2025, Electrochemical oxidation of per- and polyfluoroalkyl substances in concentrated wastewater resulting from separation and concentration technologies. PI Huang	\$654,548	\$543K
	33	US Department of Airforce, 2022-2025, Bench Scale Treatability Study and a Treatability Study for Polishing Bioretention Gate Design. PI Huang	\$100,000	\$100K
2023	34	DoD SERDP, 2023-2025, Transformation of AFFF constituents in enzyme-catalyzed oxidative humification reactions and related fungal systems. PI Huang	\$250,000	\$250K
	35	USDA NRCS, 2023-2026, Enhanced biosolids treatment and composting by enzyme- and fungi-facilitated processes for PFAS mitigation PI Huang	\$125,000	\$125K
Total		Total	\$13,039K	\$4,802K

## F. RECOGNITIONS AND OUTSTANDING ACHIEVEMENTS

### a. Invited Talks

- Nanjing University, China, May 2007
- Savannah River Ecology Laboratory, May 2007
- Nanjing University, China, June 2009
- Donghua University, China, June 2009
- Queen's University, Canada, March 2010
- The Asia/Pacific chapter of the Society of Environmental Toxicology and Chemistry 2010 Conference, Guangzhou, China, June 2010
- Shanghai Academy of Agricultural Sciences, Shanghai, China, June 2010
- Nanjing Agricultural University, Nanjing, China, June 2010
- Jiangnan University, Wuxi, China, June 2010
- Donghua University, Shanghai, China, June 2010
- Georgia Institute of Technology, October 2010
- Michigan State University, December 2010
- Peking University, China, May 2011
- Donghua University, China, May 2011
- University of California, Los Angeles CA, April 2012.
- Shanghai Academy of Agricultural Sciences, Shanghai, May 2012.
- State Key Laboratory of Pollution Control and Resources Reuse, Nanjing, China, May 2012.
- Georgia Environmental Conference (Keynote), Savannah GA, August 2012.
- U.S. DoD SERDP, May 2013.
- International Water Association, Environmental Nanotechnology Symposium, Nanjing, China, April 2013.
- Chinese Academy of Sciences, Institute of Process Engineering, Beijing, May 2013.
- U.S. Air Force Civil Engineering Center, San Antonio, August 2013.
- Shanghai Academy of Agricultural Sciences, Shanghai, May 2014.
- Beijing Normal University, Beijing, May 2014.
- Perfluorinated Chemicals (PFCs) Roundtable Forums, Westminster CO, March 2013, 2015, 2018.
- Shanghai Academy of Agricultural Sciences, Shanghai, China, May 2015.
- SINOPEC Shanghai Research Institute of Petrochemical Technology, May 2015.
- Huanghuai University, Zhumadian, China, May 2015
- Nanjing Agricultural University, Nanjing, China, June 2015.
- Nanjing University, Nanjing, China, June 2016.
- Nanjing Agricultural University, China, June 2016.
- Jiangnan University, China, June 2016.
- American Geological Union Annual Conference, San Francisco, Dec 2016.

34. American Chemical Society Annual Meeting, Washington DC, August 2016.
35. Dongguan Institute of Technology, Dongguan, China, May 2017.
36. Chinese Academy of Agricultural Sciences, China, May 2018.
37. Chinese Agricultural University, May 2018.
38. DoD Environmental Program, Washington DC, March 2019.
39. DoD SERDP Program meeting, Los Angeles, July 2021.
40. Carnegie Mellon University, October 2021.
41. Pittsburg University, October 2021.
42. Sur/Fin Conference, Detroit, Nov 2021.
43. SERDP/ESTCP Symposium, Virtual, December 2021.
44. Sur/Fin Conference, Chicago, June 2022.
45. Eco-Environmental Health Talk Series, Virtual with over 4000 attendees, June 2022.
46. Henan Agricultural University 100<sup>th</sup> Year Celebration Workshop, July 2022.
47. SERDP/ESTCP Project meeting, Long Beach, CA, July 2022.
48. Georgia Environmental Conference, Savanna, GA, August 2022.
49. U.S. EPA workshop on PFAS, Cincinnati, OH, April 2023.
50. USDA Natural Resources Conservation Services, PFAS Summit, Virtual, May 2023.
51. SERDP/ESTCP Project meeting, Portland, Oregon, July 2023.
52. American Geological Union Conference, San Francisco, Dec 2023.

**b. Honors and Awards**

1. Inventor of the Year, 2024, UGA
2. Featured on WABE radio and website (an NPR network station), broadcasted on Dec 21, 2023, with the link <https://www.wabe.org/georgia-experts-lead-pfas-contamination-research/>.
3. Featured on WSB-TV, first aired on September 5<sup>th</sup>, 2023, with the link <https://www.wsbtv.com/news/local/atlanta/georgia-researchers-work-remove-harmful-forever-chemicals-water/73PQDLZU5ZGCBA5IBJDMAV23AI/>
4. Editor's choice article, Journal of Hazardous Materials, 2022  
"Electrochemical oxidation combined with UV irradiation for synergistic removal of perfluorooctane sulfonate (PFOS) in water"
5. AESF Foundation Award (\$75K research funds), 2020
6. D.W. Brooks Award for Excellence in Research, 2018
7. Featured Inventor, UGA Innovation Gateway Newsletter, 2017.1
8. Invited Session Opening Speaker, American Geological Union Annual Meeting, 2016.12
9. UGA Interdisciplinary Innovative Research Award, 2016
10. Ph.D. student advisee Lisa Luo won Battelle conference student research paper award, 2015
11. Distinguished guest lecture, Changzhou University, China, 2014
12. International expert lectureship, Shanghai Academy of Agricultural Sciences, 2014
13. Ph.D. student advisee Liang Mao won 100 Excellent Doctoral Dissertations Award, Ministry of Education, China, 2013
14. Invited speaker and session chair, International Water Association environmental nanotechnology symposium, 2013
15. Ph.D. student advisee Sudeep Sidhu won Gerald O. Mott Meritorious Graduate Student Award, Crop Science Society of America, 2012
16. Invited lectureship, State Key Laboratory of Pollution Control and Resources Reuse, Nanjing University, China, 2012
17. Ph.D. student advisee Sudeep Sidhu won the first place student presentation award, American Association of Agronomy, Southern Branch meeting, 2011
18. Ph.D. student advisee Rashmi Singh won the first place student poster award, American Association of Agronomy, Southern Branch meeting, 2011
19. Baiyulan award for Environmental Nanotechnology research, 2010
20. Student Sudeep Sidhu won the first-place student presentation award at the American Society of Agronomy - Southern Branch meeting, 2011.
21. Student Rashmi Singh won the first-place student poster presentation award at the Soil Science Society of Georgia annual meeting, 2011.

22. Student Liwen Zhang won the second-place student presentation award in ACS 240th National meeting in the symposium "Environmental implication and application of nanomaterials", 2010
23. Student Sudeep Sidhu won first-place graduate student oral presentation award, Industry Division, Turfgrass Science Section (C-05) at ASA meeting, 2010
24. Student Liwen Zhang won the second-place student presentation award in Combined Carolinas and Georgia SECTAC Annual meeting, 2010
25. Visiting student Liang Mao won Nanjing University outstanding Ph.D. thesis award, 2010
26. Student Sudeep Sidhu won UGA graduate school scholarship, 2008
27. Student Liwen Zhang won UGA graduate school scholarship, 2008
28. Student Liang Mao won the second-place poster presentation award at AWWA annual meeting, 2008

## G. AREAS OF RESEARCH

1. Electrocatalysis and reactive electrochemical membrane processes for water treatment.
2. Enzyme-based technology for water/wastewater treatment and soil remediation.
3. Environmental application and implication of nanomaterials.
4. Catalysis in agro-ecosystem management, and agricultural waste recycling.

## H. SUPERVISION OF GRADUATE RESEARCH AND POST-DOCTORAL RESEARCHERS

### a. Graduate Students Major Advisor

- |                               |       |                                     |
|-------------------------------|-------|-------------------------------------|
| 1. Rashmi Singh (2008-2013)   | Ph.D. | Crop & Soil                         |
| 2. Sudeep Sidhu (2008-2012)   | Ph.D. | Crop & Soil (Co-advisor P. Raymer)  |
| 3. Liwen Zhang (2008-2013)    | Ph.D. | Crop & Soil                         |
| 4. Qi Luo (2011-2015)         | Ph.D. | Toxicology                          |
| 5. Shangtao Liang (2014-2017) | Ph.D. | Toxicology                          |
| 6. David Pierce (2018-2020)   | Ph.D. | Toxicology                          |
| 7. Yaye Wang (2017-2022)      | Ph.D. | Toxicology                          |
| 8. Yufei Sui (2021-)          | Ph.D. | Toxicology                          |
| 9. Yuqing Ji(2022-)           | Ph.D. | Toxicology                          |
| 10. Qi Luo (2008-2010)        | MS    | Crop & Soil                         |
| 11. Yue Yang (2013-2015)      | MS    | Crop & Soil                         |
| 12. Max Warner (2020-)        | MS    | Crop & Soil (Co-Advisor G. Hawkins) |
| 13. Umar Munir (2022-)        | MS    | Crop & Soil                         |

### b. Graduate Students (Visiting) Advisor

- |                             |       |                                 |
|-----------------------------|-------|---------------------------------|
| 1. Liang Mao (2007-2008)    | Ph.D. | Nanjing University              |
| 2. Lina Zhou (2011-2012)    | Ph.D. | Northwest A&F University        |
| 3. Jiayang Liu (2011-2012)  | Ph.D. | Jiangnan University             |
| 4. Kai Sun (2014-2015)      | Ph.D. | Nanjing Agricultural University |
| 5. Xinghao Wang (2015-2016) | Ph.D. | Nanjing University              |
| 6. Huanhuan Shi (2017-2019) | Ph.D. | Nanjing University              |
| 7. Beibei Wang (2018-2019)  | Ph.D. | Chinese Academy of Science      |
| 8. Lu Wang (2017-2019)      | Ph.D. | Nanjing Agricultural University |
| 9. Peizhen Yang (2018)      | Ph.D. | Nanjing Agricultural University |
| 10. Diana Grunfeld (2022)   | Ph.D. | University of New South Wales   |

### c. Graduate Students Advisory Committees

- |                                   |       |                           |
|-----------------------------------|-------|---------------------------|
| 1. Michelle Durant (2008-2011)    | Ph.D. | Crop & Soil               |
| 2. Emily Roberts (2009-2010)      | MS    | Toxicology                |
| 3. Brian Waters (2010-2013)       | Ph.D. | Food Science              |
| 4. Hao Zhang (2010-2012)          | MS    | Crop & Soil               |
| 5. Jialin Yu (2011-2014)          | Ph.D. | Crop & Soil               |
| 6. Hang Qi (2012-2015)            | MS    | Food Sci.                 |
| 7. Hang Qi (2015-2018)            | Ph.D. | Food Sci.                 |
| 8. Abha Mundepi (2012-2016)       | Ph.D. | Crop & Soil Sci.          |
| 9. Robert Sowah (2012-2016)       | Ph.D. | Crop & Soil Sci.          |
| 10. Benjamin Gochnour (2016-2019) | Ph.D. | Entomology                |
| 11. Gengyang Li (2022-)           | Ph.D. | Environmental Engineering |
| 12. Bailey Williams (2022-)       | MS    | Crop & Soil Sci.          |

- |                              |       |                              |
|------------------------------|-------|------------------------------|
| 13. Seth Currie (2022-)      | Ph.D. | Environmental Health Science |
| 14. Michael O'Brien (2022-)  | Ph.D. | Environmental Health Science |
| 15. Oyindamola Oseni (2022-) | Ph.D. | Geology                      |
| 16. Ravi Teja Seelam         | Ph.D. | Crop and Soil Sciences       |

**d. Postdoctoral researchers**

1. Junhe Lu (2007-2010)
2. Liang Mao (2011-2012)
3. Hui Lin (2014-2015)
4. Lisa Luo (2015-2016)
5. Jiayang Liu (2017-2018)
6. Nosir Shukurov, Fulbright Scholar, (2017-2018)
7. Ray Li (2019-2021)
8. Yifei Wang (2020-)
9. Xi Zhu (2023-)

**e. Visiting Scientists**

1. Liang Mao (2011)
2. Changwei Hu (2013)
3. Lusheng Zeng (2013)
4. Di Zhang (2013-2014)
5. Jiayang Liu (2013-2014),
6. Zafar Abbas (2013-2014)
7. Jiaxin Zhou (2016-2017),
8. Xiufen Yan (2016-2017),
9. Junhe Lu (2017-2018),
10. Hongyou Wan (2019-2020)
11. Guohua Zhao (2023-)

**f. Research Technician**

1. Hao Zhang (2013-2014)
2. Shangtao Liang (2013-2014)
3. Raymond Fontanez (2019-2020)
4. Yuqing Ji (2021-2022)
5. Shuping Dong (2021-)

**I. SOCIETAL ACTIVITIES AND EDITORSHIP****a. Editorship**

Associate Editor, *Journal of Environmental Quality* (2013-2016)  
 Specialty Chief Editor in Environmental Catalysis, *Frontiers in Environmental Engineering* (2022-)  
 Editorial Board Member, *Soil and Environmental Health* (2022-)  
 Associate Editor, *Scientific Reports* (2023-)

**b. Invited External Reviewer of Manuscripts (averaged >25 a year since 2007)**

1. Environmental Science and Technology
2. Water Research
3. Nature Communication
4. Chemical Engineering Journal
5. Environmental Toxicology and Chemistry
6. J. Environmental Engineering Science
7. Applied Catalysis B: Environmental
8. Chemosphere
9. J. Environmental Quality
10. J. Environmental Management
11. J. Hazardous Materials
12. Journal of Colloid and Interface Science
13. Journal of Chemical Technology and Biotechnology
14. AIChE Journal,
15. Inorganic Chemistry

16. Biodegradation
17. Environmental Pollution
18. Environmental Chemistry
19. Environmental Geochemistry and Health
20. J. Environmental Management
21. KSCE Journal of Civil Engineering
22. Inorganic Chemistry
23. Biodegradation
24. J. Bioscience and Bioengineering
25. Wiley-IUPAC book

**c. Symposium Organization**

1. Environmental Fate, Transport, Transformation of Organic Contaminants in Soil/Water Systems, SSSA annual meeting, 2012, San Antonio
2. Microbial and Biochemical Transformations of Emerging Contaminants, ACS Spring Annual Meeting, 2012, San Diego.
3. Poly- and Perfluoroalkyl Substances: Environmental Behavior and Pollution Control, ACS Fall Annual Meeting, 2106, Philadelphia, PA

**d. Promotion Review**

1. Michigan Nanotechnology Institute for Medicine and Biological Sciences, University of Michigan
2. University of Missouri-Kansas City (UMKC), Civil and Environmental Engineering
3. Asian Institute of Technology, Thailand, Civil and Environmental Engineering
4. Nanjing University, China, School of Environment
5. University of Kentucky, College of Agriculture, Food and Environment

**e. Grants Review**

1. National Science Foundation (Environmental Engineering)
2. EPA STAR program
3. EPA SBIR program
4. DoD SERDP
5. USDA-ARS
6. U. S. Army Research Office
7. Ohio Sea Grant
8. ACS Petroleum Research Funds
9. Massachusetts Experiment Station grant
10. NSERC Discovery Grant
11. US-Israel binational science foundation
12. Canada Research Chair
13. Australian Research Council
14. Dutch Research Council

**g. Scholarship Review**

1. EPA GRO graduate fellowship
2. CAES Griffin campus scholarship
3. Chen Jiageng Young Scientist Award
4. D.W. Brooks Award for Excellence in Research.

**h. Advisory Committee**

1. The GeoEngineering Center at Queen's University, Canada

**J. Professional Meetings Attended: (>47 total since 2007)**

1. American Chemical Society Annual Meeting (10)
2. SERDP/ESTCP symposium (12)
3. Soil Science Society of America Annual Meeting (4)
4. Battelle Conference (2)

5. DoD Environmental Research Meeting (5)
6. American Geological Union annual conference (1)
7. American Water Works Association Annual meeting (1)
8. Asia/Pacific chapter of SETAC annual meeting (1)
9. Georgia Water Resources conference (2)
10. Soil Science Society of Georgia (SSSGA) annual meeting (1)
11. U.S. EPA grantee meeting (2)
12. USDA grantsmanship workshop (1)
13. America Agronomy Society Southern Branch meeting (1)
14. IWA specialist conference (2)
15. Sur/Fin Conference (3)

**K. PUBLIC AND UNIVERSITY SERVICE**

- a. High School Science Fair Judge (3)
- b. Young Scholar Program (>20 students)
- c. Young Dawgs Program (1)
- d. Presentation at High School (1)
- e. Industrial collaborators
  1. AECOM
  2. ECT2
  3. Wood
  4. Magneli Materials
  5. Rhizosolutions
  6. Syngenta
- f. Consulting
  1. AECOM
  2. Kubota Industrial Equipment Corporation (KIE)
- g. Startup
  1. Tarazyme LLC.
- h. Collaborative research with other institutions
  1. Georgia Institute of Technology, Ching-hua Huang
  2. Georgia Institute of Technology, Yongsheng Chen
  3. Michigan State University, Hui Li
  4. Colorado State University, James Ippolito
  5. University of New South Wales, Australia, Denis O'Carroll
  6. The University of Florida, Bin Gao
  7. University of Virginia, Lisa Colosi
  8. National Institute of Standards and Technology, Elijah Petersen
  9. The University of Plymouth, UK, Theodore Henry
  10. Queen's University, Canada, Kerry Rowe
  11. Carnegie Mellon University, Rongchao Jin
  12. Old Dominion University, Jingdong Mao
  13. USDA-ARS, Mingli Wang
  14. Clemson University, Hong Luo
  15. Mississippi State University, Jilei Zhang
  16. Nanjing University, China, Shixiang Gao, Zunyao Wang
  17. Donghua University, China, Xiangyang Shi
  18. Peking University, Xiaoxia Lu
  19. Beijing Normal University, China, Junfeng Niu
  20. Jiangnan University, China, Xiangru Liao
  21. Oregon State University, Jennifer Field
  22. Wood Inc., Dora Chiang,
  23. AECOM, Mora Rebecca
  24. Hong Kong University, Tong Zhang
  25. ECT2, Steve Woodard
  26. ECT2, Michael Nickelsen



## **L. ADMINISTRATIVE SERVICES TO THE UNIVERSITY**

- a. **University**
  - 1. Interdisciplinary toxicology program graduate admission committee (2010-2014)
- b. **Griffin Campus**
  - 2. Griffin Campus Laboratory Safety Committee Chair (2011-)
  - 3. Griffin Campus Employee Council Member (2008-2010)
  - 4. Griffin Campus Visitors Housing Committee Member (2009-)
- c. **College**
  - 5. CAES Diversity and Inclusion Committee member (2021-)
  - 6. CAES Faculty Affair and Grievance Committee member (2008-2011)
  - 7. CAES graduate affair committee (2013-)
  - 8. CAES Griffin Campus Scholarship Review Committee member (2010-)
- d. **Departmental**
  - 9. Search committee member: assistant professor in Environmental Microbiology at Griffin (2008)
  - 10. Search committee member: On-site Wastewater specialist (2008)
  - 11. Teaching review committee member for Dr. Peter Hartel (2009)
  - 12. Teaching review committee member for Dr. Peng Chee (2010)
  - 13. Teaching review committee member for Dr. Nick Hill (2011)
  - 14. Teaching review committee member for Dr. Habteselassie (2013)
  - 15. Post-tenure review committee chair for Dr. Leclerc (2015)
  - 16. Turf physiologist assistant professor search committee member (2015)
  - 17. Promotion committee member for Dr. Aaron Thompson (2016)
  - 18. Search committee member: Department chair (2018)
  - 19. Promotion and tenure committee for Dr. Gary Hawkins (2019)
  - 20. Search committee member: Department head (2020)
  - 21. Search committee member: Department head (2021)
  - 22. Search committee member: Department head (2022)

## **M. OTHER PROFESSIONAL ACTIVITIES**

- a. **Professional Society membership**
  - 1. American Chemical Society (ACS)
  - 2. Soil Science Society of America (SSSA)
  - 3. Association of Environmental Engineering and Science Professors (AEESP)
  - 4. Georgia Golf Course Superintendent Association (GGCSA)
- b. **Presentation at Industry Groups or Organizational Meetings**
  - 1. 19<sup>th</sup> Annual Turfgrass Industry Meeting, 2007
  - 2. Georgia Golf Course Superintendent Association annual conference, 2008
  - 3. Georgia Turf Association annual conference, 2009
  - 4. Georgia Golf Course Superintendent Association Board meeting, 2010
  - 5. Georgia Turf field day, 2010
  - 6. DoD SERDP meeting, 2013
  - 7. Air force civil engineering center meeting, 2013
  - 8. Perfluoroalkyl compounds expert roundtable meeting, 2013
  - 9. Perfluoroalkyl compounds expert roundtable meeting, 2015
  - 10. Perfluoroalkyl compounds expert roundtable meeting, 2018
  - 11. SERDP/ESTCP Strategic Planning meeting, 2022.
  - 12. SERDP/ESTCP panel on "PFAS electrochemical treatment technology", 2023
- d. **Academic Affiliations**
  - 1. UGA Faculty of Engineering, 2008-2011
  - 2. UGA Nano Science and Engineering Center, 2009-
  - 3. UGA Interdisciplinary Toxicology Program, 2009-
- e. **Provided recommendation letters for students and professionals (> 60)**