

CURRICULUM VITAE

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PROFESSIONAL EXPERIENCE:

2021.01 – Present	Assistant Professor	School of Fisheries, Aquaculture & Aquatic Sciences, Auburn University, Auburn, AL, USA.
2019.07 – 2020.12	Research Associate	U.S. EPA & Oak Ridge Institute for Science and Education (ORISE), Ada, OK, USA.
2017.01 – 2019.06	Research Associate	U.S. EPA & National Research Council (NRC), Ada, OK, USA.
2014.07 – 2016.12	Postdoctoral Researcher	Department of Plant & Soil Sciences, University of Delaware, Newark, DE, USA.

EDUCATION:

2014 Ph.D. Environmental Science, Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China.
Dissertation: “*Mechanistic Understanding of Fate and Transport of Engineered Nanomaterials and Biochar Colloids in the Subsurface*”.

2012 M.S. Environmental & Soil Science, Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China.
Thesis: “*Transport of Hydroxyapatite Nanoparticles and Their Facilitated Transport of Copper in Water-Saturated Porous Media*”.

2009 B.S. Environmental Engineering, School of Resources and Environmental Engineering, Anhui University, Hefei, China.

RESEARCH EXPERTISE AND INTERESTS:

- Fate & transport of conventional (e.g., pesticides) and emerging contaminants (e.g., PFAS, microplastics, and nanomaterials) in aquatic environment
- Environmental remediation of contaminants (e.g., PFAS, microplastics, nutrients, and pharmaceuticals and personal care products)
- Nutrients (e.g., N and P) and harmful algal blooms (HABs)
- Nano-enabled sustainable agriculture (nano-pesticides and nano-fertilizers)

AWARDS (SELECTED):

- 2023 Project Advisory Committee Member, *Water Research Foundation* (WRF)
- 2023 Member, *American Geophysical Union (AGU)* Water Quality Technical Committee
- 2022 Outstanding Publication Award, College of Agriculture, Auburn University
- 2022 Early Career Editorial Board Member, *Journal of Hazardous Materials*, Elsevier
- 2022 Early Career Editorial Board Member, *Journal of Hazardous Materials Advances*, Elsevier
- 2022 Early Career Editorial Board Member, *Frontiers of Environmental Science & Engineering*, Springer
- 2021 Associate Editor Mentorship Program, *Inland Waters*, International Society of Limnology (SIL)
- 2021 Early Career Editorial Board Member, *Chemical Engineering Journal Advances*, Elsevier
- 2019 Postdoctoral Associateship, *Oak Ridge Institute for Science & Education (ORISE)*, U.S. EPA
- 2018 Excellence in Reviewing Award, *Journal of Soils and Sediments*, Springer Nature
- 2018 Outstanding Contribution in Reviewing Award, *Environment International*, Elsevier
- 2017 Excellence in Reviewing Award, *Journal of Soils and Sediments*, Springer Nature
- 2017 Outstanding Contribution in Reviewing Award, *Environmental Pollution*, Elsevier
- 2016 Excellence in Reviewing Award, *Journal of Soils and Sediments*, Springer Nature
- 2016 Postdoctoral Associateship, *National Research Council (NRC)*, U.S. EPA, USA
- 2015 Excellent Doctoral Degree Dissertation, *Chinese Academy of Sciences*, China (***Highest Honor***)
- 2014 Special Prize of President Scholarship for Postgraduate Students, *Chinese Academy of Sciences*, China (***Highest Honor***)
- 2013 Excellent Master's Degree Dissertation, *Academic Degrees Committee of Jiangsu Province*, China
- 2013 *National Scholarship*, China
- 2013 The Second Prize of Excellent Academic Report Award, The Professional Committee of Soil Environment, *Soil Science Society of China*, China
- 2012 Excellent Prize of President Scholarship for Postgraduate Students, *Chinese Academy of Sciences*, China

GRANTS & CONTRACTS (11 AWARDED SINCE 2021; \$4,627,258 IN TOTAL; WANG'S PORTION: \$1,501,190):

1. **Wang, D;** Jafarinejad, S; and He, J. 2023. *Biochar-Enabled Platform for Enhanced Destruction and Defluorination of Short-Chain Per- and Polyfluoroalkyl Substances (PFAS) in Water (84087301)*. **U.S. EPA 20th Annual P3 Awards, \$74,992 (Wang: \$49,998)** (11/01/2023 – 10/31/2025).
2. Wei, H; Kim, J; and **Wang, D**. 2023. *Integrated Portable Raman and Electrochemical NanoSystem (I-PRENS) for Neonicotinoid Detection and Remediation in Rural Drinking Water Supplies (RD840599)*. **U.S. EPA STAR Program \$1,362,435 (Wang: \$379,206)** (08/01/2023 – 07/31/2026).
3. **Wang, D;** Tratnyek, PG.; Men, Y; Fan, D; Danko, AS.; and Su, C. 2023. *Abiotic and Biotic Transformation of PFAS Precursors at Oxic–Anoxic Transition Zones in AFFF-Impacted Soil and Groundwater (ER23-3620)*. **DoD SERDP Program, \$1,394,747 (Wang: \$359,851)** (07/20/2023 – 07/19/2026).
4. Waters, PJ.; Grice, R; and **Wang, D**. 2023. *Enhancing the Effectiveness of in situ Nutrient Sinks to Address Pollution in Coastal Alabama*. **U.S. EPA Gulf of Mexico Innovative Nutrient Reduction Program, \$687,094 (Wang: \$140,798)** (07/01/2023 – 06/30/2026).
5. **Wang, D**. 2023. *Bolstering Aquaculture Benefits Through Cost-Effective Water Quality Management*. **U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), \$347,323 (Wang: \$347,323)** (07/01/2023 – 06/30/2024).
6. Hoang, T; Tomasso, JR; **Wang, D;** Wilson, AE; Ojeda, A; Lotsch, P; Davis, J; Zou, S; and Blersch, D. 2022. *Strategic Investment from the Mission Enhancement Fund – Equipment Need to Enhance Research Collaboration towards Future Development of a Research Center for Ecotoxicology and Risk Assessment*. **Auburn University Mission Enhancement Fund. \$380,000 (Wang: \$0)** (10/01/2022 – 09/30/2024).
7. **Wang, D;** and Wilson, AE. 2022. *Elucidating Phosphorus Loading and Bioavailability in Catfish Ponds for Sustainable Aquaculture (#454490)*. **Alabama Agricultural Experiment Station (AAES) Seed Grant (AgR-SEED) (454490), \$50,000 (Wang: \$25,000)** (10/01/2022 – 09/30/2024).
8. **Wang, D;** Hayworth JS.; Su, C; Tratnyek, PG.; Fan, D; and Fang, J. 2021. *Engineering an “All-In-One” Biochar-Surfactant System for Enhanced PFAS Sorption and Reductive Degradation Using a Coupled Ultraviolet and Ultrasonication Approach (ER22-3150)*. **DoD SERDP Program, \$248,862 (Wang: \$128,091)** (05/13/2022 – 05/12/2024).

9. **Wang, D.** 2022. *Engineering Biochar Colloidal Particles to Enhance Natural Source Zone Depletion (NSZD) for Sustainable LNAPL Management*. **Geosyntec Consultants, \$5,000 (Wang: \$5,000)** (04/01/2022 – 01/31/2023) (**Completed**).
10. **Wang, D;** Wilson, AE.; and Stoeckel, JA. *Engineering a Cost-Effective Biochar-Surfactant System for Sorption and Degradation of PFAS in Drinking Water and Groundwater in Alabama*. 2021 (USGS-G21AP10596-00-DW). **USGS – Alabama Water Resources Research Institute (AWRRI), \$75,805 (Wang: \$64,923)** (09/01/2021 – 08/31/2022) (**Completed**).
11. **Wang, D.** 2021 *Summer Course Re(Design) Award*. **Biggio Center for Enhancement of Teaching & Learning, Auburn University, \$1,000 (Wang: \$1,000)** (09/15/2021 – 12/31/2021) (**Completed**).

PROPOSALS (UNDER REVIEW BY FUNDING AGENCIES; 6):

1. Zou, S.; **Wang, D.;** and Qin, M. 2023. *Recovering Bioavailable Phosphorus from Agricultural Runoff Using a Carbon-Loaded Electrochemical Artificial Retention (CLEAR) System*. **USDA, NIFA, AFRI, Water Quantity and Quality Program, \$650,000.**
2. **Wang, D.;** and Wilson, AE. 2023. *Elucidating Nutrient Load and Bioavailability to Cyanobacteria in Catfish Ponds for Sustainable Aquaculture*. **USDA, NIFA, AFRI, Water Quantity and Quality Program, \$600,000.**
3. Aniruddha, M.; **Wang, D.;** McElroy, S.; and Russell, D. 2023. *Impacts of Atrazine Residues and Metabolites Present in Killed Weeds and Soil-Water Continuum on Atrazine-Resistance Development in Dominant Weeds: Alabama's Blackbelt Region as a Case Study*. **U.S. EPA Pollution Prevention (P2) Grant, \$799,148.**
4. Olshansky, Y; Hoang, TC; **Wang, D;** Ojeda, AS; and Vachula, RS. 2023. *Acquisition of a Fourier Transform Infrared Microscope for Advanced Research of Microplastics in Agricultural Systems*, **USDA-NIFA Equipment Grants Program (EGP), \$186,990.**
5. Marble, K; Danko, A; Fan, D; Lee, SW; and **Wang, D.** *Innovative Solution for Passive Management of Low Risk Light Non Aqueous Phase Liquid (LNAPL) Sites by Biochar Enhanced Natural Source Zone Depletion*. **Navy Environmental Sustainability Development to Integration (NESDI), \$533,000.**
6. **Wang, D;** Tratnyek, PG; Brusseau, ML; Guo B; Fan, D; Su, C; and Danko, AS. 2023. *Characterizing, Modeling, and Predicting the Self-Assembly,*

Transformation, and Transport of PFAAs and Precursors in AFFF-Impacted Source Zones. DoD SERDP Program, \$1,687,852.

PROPOSAL REVIEWER (5 FUNDING AGENCIES):

1. NSF CBET Environmental Engineering Program and Nanoscale Interactions Program, 2023 ($n = 2$), 2022 ($n = 2$), and 2021 ($n = 1$).
2. NSF Partnerships for Innovation (PFI), 2023 ($n = 1$).
3. NSF Graduate Research Fellowship Program (GRFP), 2023 ($n = 1$).
4. U.S. EPA, 2023 ($n = 2$), 2022 ($n = 1$).
5. University of Wisconsin Sea Grant, 2023 ($n = 1$), and 2021 ($n = 1$).
6. University of Nebraska Collaboration Initiative Grant, 2021 ($n = 1$).
7. Israel Science Foundation, 2017 ($n = 1$).

PROPOSAL PANELIST (10 PANELS):

1. NSF CBET Environmental Engineering Program and Nanoscale Interactions Program, 2023 ($n = 2$), 2022 ($n = 2$), and 2021 ($n = 1$).
2. NSF Partnerships for Innovation (PFI), 2023 ($n = 1$).
3. NSF Graduate Research Fellowship Program (GRFP), 2023 ($n = 1$).
4. U.S. EPA, 2023 ($n = 2$), 2022 ($n = 1$).

PEER-REVIEWED JOURNAL PUBLICATIONS (103 IN TOTAL; GOOGLE SCHOLAR CITATION = 3,717; H-INDEX = 33; I10-INDEX = 57):

- **Journal Publications (10 Under Review and In Revision) ([†]Graduate Student; [§]Undergraduate; [‡]Postdoc; *Corresponding Author)**
 1. Zheng, Ruyi; Zhu, Jian; Liao, Peng*; **Wang, Dengjun**; Wu, Pan; Mao, Wenjian; Zhang, Yuqin; Wang, Weiwei; Yan, Yuzhu; and Ding, Zihan. 2023. Environmental Colloid Behaviors of NOM-Cd(II) Nanoparticles in Aquatic Environments. *Journal of Hazardous Materials* (Under Review).
 2. He, Jianzhou[‡]; Boersma, Melissa; Krebsbach, Samuel[†]; Song, Ziteng[†]; Fan, Dimin; and **Wang, Dengjun***. Biochar and Surfactant Synergistically Enhanced PFAS Destruction in UV/Sulfite System. 2023. *Environmental Science & Technology* (Under Review).
 3. Si, Dunfeng; Wu, Song*; Wu, Haotian; **Wang, Dengjun**; Fu, Qinglong; Wang, Yujun; and Zhou, Dongmei*. 2023. Synchronized Alleviation of Arsenic Contamination and Carbon Emission in Flooding Paddy Soil by Inhibiting Dissolved Organic Matter Electron Shuttling. *Environmental Science & Technology* (Under Review).
 4. Jin, Zuxue; Wang, Jingfu*; **Wang, Dengjun**; Qiu, Shuoru; Ma, Yiming; Hu, Xinping; and Chen, Jingan*. 2023. A Novel Method for the Analysis of Oxygen

Isotopic Compositions of Inorganic Phosphorus Pools in Freshwater Sediment. *Water Research* (Under Review).

5. Li, Daohan; Lou, Xiangyang; Wang, Jingfu*; **Wang, Dengjun**; Liao, Peng; Hu, Xinping; Shi, Peng; Yang, Jiaojiao; Chen, Jingan; and Chen, Hong*. 2023. Efficient and Whole Process Recovery of Fluoride, Phosphate, and Sulfate Ions from Waste Phosphogypsum Leachate. *Chemical Engineering Journal* (Under Review).
6. Mao, Wenjian; **Wang, Dengjun**; Wu, Pan; Zhu, Jian*; Liao, Peng*; Lai, Kaidi; Ding, Zihan; Zhang, Yuqin; He, Zhongxu; Zheng, Ruyi, and Chen, Yonglin. 2023. Co-transport of Iron-Organic Matter Colloids with Sb(V) in Saturated Porous Media: Implications for Antimony Mobility. *Chemical Engineering Journal* (Under Review).
7. Chen, Quan; Wang, Jingfu*; Zhu, Mengqiang; Liao, Peng; Qin, Haibo; **Wang, Dengjun**; Zeng, Guangci; Liu, Yuhui; Zeng, Huaxian; and Chen Jingan*. 2023. Redox of Manganese Compounds Drive Phosphorus Cycling at the Sediment-Water Interface in a Deep Eutrophic Reservoir, Southwest China. *Water Research* (Under Review).
8. Yuan, Jiahui; Chen, Hao; Chen, Guanglei; Pokharel, Prem; Chang, Scott X; Wang, Yujun; **Wang, Dengjun**; Zhao, Xu; Wang, Shengqiang; and Wang, Yu*. 2023. Ten-Year Biochar Application to Paddy Soil Decreased *in-situ* Available Phosphorus Associated with Iron and Sulfur in Rhizosphere. *Soil & Tillage Research* (Under Review).
9. Zinnert, Hannah M.[†]; Gladfelter, Matthew F.[†]; Tenison, Suzanne F.; Poe, H. Peyton[†]; Merrill, Kate L.[†]; Hennessey, Ashley V.[†]; McDonald, Michael B.[†]; **Wang, Dengjun**; Torbert, H. Allen; and Wilson, Alan E.* 2023. Impacts of Flue Gas Desulfurization (FGD) Gypsum on Water Quality and the Algal Community in Catfish Aquaculture Ponds. *Aquaculture* (In Revision).
10. Zinnert, Hannah M.[†]; Gladfelter, Matthew F.[†]; Poe, H. Peyton[†]; Merrill, Kate L.[†]; Hennessey, Ashley V.[†]; McDonald, Michael B.[†]; **Wang, Dengjun**; Torbert, H. Allen; and Wilson, Alan E.* 2023. Positive and Negative Impacts of Flue Gas Desulfurization (FGD) Gypsum on Water Quality. *Journal of Environmental Management* (In Revision).
- **Journal Publications (35) at Auburn University Since 2021 (†Graduate Student; ‡Postdoc; *Corresponding Author)**
11. Chen, Guanglei; Yuan, Jiahui; Wang, Shengqiang; Liang, Yuting; **Wang, Dengjun**; Zhu, Yiyong; and Wang, Yu*. 2023. Soil and Microbial C: N: P Stoichiometry Plays a Vital Role on Regulating P Transformation in Agricultural

- Ecosystems. *Pedosphere* [10.1016/j.pedsph.2023.06.002], In Press.
12. Krebsbach, Samuel[†]; He, Jianzhou[‡]; Oh, Tae-Sik; and **Wang, Dengjun***. 2023. Effects of Environmental Factors on the Sorption of Per- and Polyfluoroalkyl Substances by Biochars. *ACS ES&T Water*, [DOI: 10.1021/acsestwater.3c00458], In Press.
 13. Chen, Lin; **Wang, Dengjun**; Sun, Tianran; Fan, Tingting; Wu, Song*; Fang, Guodong; Yang, Min; and Zhou, Dongmei*. 2023. Quantification of the Redox Properties of Microplastics and Their Effect on Arsenite Oxidation. *Fundamental Research*, 3 (5), 777–785. [DOI: 10.1016/j.fmre.2022.03.015].
 14. Qin, Dongming; Li, Shanze; Wang, Jingfu*; **Wang, Dengjun**; Liao, Peng; Wang, Yuchun; Zhu, Zhiqiang*; Dai, Zhihui; Jin, Zuxue; Hu, Xinping; Qiu, Shuru; Ma, Yiming; and Chen, Jingan. 2023. Spatial Variation of Soil Phosphorus in the Water Level Fluctuation Zone of the Three Gorges Reservoir: Coupling Effects of Elevation and Artificial Restoration. *Science of the Total Environment*, 905, 167000. [DOI: 10.1016/j.scitotenv.2023.167000].
 15. Hamid, Ansley K.[†]; Wilson, Alan E.; Gladfelter, Matthew F.[†]; Knappenberger, Thorsten J.; and **Wang, Dengjun***. 2023. Long-Term Missing Role of Small Colloids and Nanoparticles on the Loading and Speciation of Phosphorus in Catfish Aquaculture Ponds in West Alabama. *Chemosphere*, 340, 139906. [DOI: 10.1016/j.chemosphere.2023.139906].
 16. Chen, Quan; Xu, Shu; Wang, Jingfu*; **Wang, Dengjun**; Dai, Zhihui; Liao, Peng; Yang, Jiaojiao; Guo, Wen; Ding, Shiming; and Chen, Jingan. 2023. Application of Two-Dimension, High-Resolution Evidences to Reveal the Biogeochemical Process Patterns of Trace Metals in Reservoir Sediments. *Science of the Total Environment*, [DOI: 10.1016/j.scitotenv.2023.166404], 900, 166404.
 17. Ouyang, Jingwu; Wu, Hongchen; Yang, Huan*; Wang, Jingfu*; Liu, Jianbao; Tong, Yindong; **Wang, Dengjun**; and Huang, Miao. 2023. Global Warming Induces the Succession of Photosynthetic Microbial Communities in a Glacial Lake on the Tibetan Plateau. *Water Research*, 242, 120213. [DOI: 10.1016/j.watres.2023.120213].
 18. Jin, Zuxue; Liao, Peng; Jaisi, Deb P.; **Wang, Dengjun**; Wang, Jingfu*; Wang, Heng; Jiang, Shihao; Yang, Jiaojiao; Qiu, Shuru; and Chen, Jingan*. 2023. Suspended Phosphorus Sustains Algal Blooms in a Dissolved Phosphorus-Depleted Lake. *Water Research*, 241, 120134. [DOI: 10.1016/j.watres.2023.120134].
 19. Xu, Shu; Wang, Jingfu*; **Wang, Dengjun**; Liao, Peng; Hu, Xinping; Yang,

- Yongqiong; and Chen, Jingan. 2023. Effective Removal of Nitrogen and Phosphorus from a Black-Odoriferous Water by Novel Oxygen-Loaded Adsorbents. *Chemical Engineering Journal*, 466, 143146. [DOI: 10.1016/j.cej.2023.143146].
20. Krebsbach, Samuel[‡]; He, Jianzhou[‡]; Adhikari, Sushil; Olshansky, Yaniv; Feyzbar, Farshad;[†] Davis, Leonard;[§] Oh, Tae-Sik; and **Wang, Dengjun***. 2023. Mechanistic Understanding of Perfluorooctane Sulfonate (PFOS) Sorption by Biochars. *Chemosphere*, 330, 138661. [DOI: 10.1016/j.chemosphere.2023.138661].
21. Gao, Xuan; Meng, Qingkang; Fang, Jing*; Shan, Shengdao; Lin, Daohui; and **Wang, Dengjun**. 2022. Effects of Particle Size and Pyrolytic Temperature of Biochar on the Transformation Behavior of Antibiotic Resistance Genes. *Science of the Total Environment*, 877, 162923. [DOI: 10.1016/j.scitotenv.2023.162923].
22. Wang, Yu; Huang Yunyun; Song, Lian; Yuan, Jiahui; Li, Wei; Zhu, Yongguan; Chang, Scott X.; Luo, Yiqi; Ciais, Philippe; Peñuelas, Josep; Wolf, Julie; Cade-Meuum, Barbara; Hu, Shuijin; Wang, Lei; **Wang, Dengjun**; Yuan, Zengwei; Wang, Yujun; Tao, Ye; Wang, Shengqiang; Liu, Gang; Yan, Xiaoyuan; and Zhu, Chunwu*. 2023. Reduced Phosphorus Availability in Paddy Soils Under Atmospheric CO₂ Enrichment. *Nature Geoscience*, 16 (2), 162–168. [DOI: 10.1038/s41561-022-01105-y] ([Journal Cover](#); [Highlighted by Auburn University](#)).
- https://ocm.auburn.edu/newsroom/news_articles/2023/02/030836-phosphorus-shortage.php
23. Hamid, Ansley[†]; Wilson, Alan E.; Torbert, H. Allen; and **Wang, Dengjun***. 2022. Sorptive Removal of Phosphorus by Flue Gas Desulfurization Gypsum in Batch and Column Systems. *Chemosphere*, 302, 138062. [DOI: 10.1016/j.chemosphere.2023.138062].
24. Wang, Min; Yang, Min; Fan, Tingting; **Wang, Dengjun**; He, Jianzhou; Wu, Haotian; Si, Dunfeng; Wang, Mei; Wu, Song*; and Zhou, Dongmei*. 2023. Activating Soil Nitrification by Co-application of Peanut Straw Biochar and Organic Fertilizer in a Rare Earth Mining Soil. *Science of the Total Environment*, 866, 161506. [DOI: 10.1016/j.scitotenv.2023.161506].
25. **Wang, Dengjun***; and White, Jason, C. 2022. Benefit of Nano-Enabled Agrochemicals. *Nature Food*, 3 (12), 983–984. [DOI: 10.1038/s43016-022-00665-x] (**Invited**).
26. Zou, Mingzhao; Wu, Yichao*; Qu, Chenchen; **Wang, Dengjun**; Liu, Jun; Huang, Qiaoyun; and Cai, Peng. 2022. Molecular Composition Determines the

- Adsorption Behaviors of Loosely- and Tightly-Bound Extracellular Polymeric Substances (EPS) from *Shewanella oneidensis* MR-1 on Hematite Nanoparticles, *Environmental Science: Nano*, 9 (12), 4459–4467. [DOI: 10.1039/D2EN00790H].
27. Si, Dunfeng; Wu, Haotian; Yang, Min; Fan, Tingting; **Wang, Dengjun**; Chen, Lin; Zhu, Changyin; Fang, Guodong; Wu, Song*; and Zhou, Dongmei*. 2022. Linking Pyrogenic Carbon Redox Property to Arsenite Oxidation: Impact of N-Doping and Pyrolysis Temperature. *Journal of Hazardous Materials*, 445, 130477. [DOI: 10.1016/j.jhazmat.2022.130477].
28. Jing, Xinxin; Wu, Yichao*; **Wang, Dengjun**; Qu, Chenchen; Liu, Jun; Gao, Chunhui; Mohamed, Abdlkader; Huang, Qiaoyun; Cai, Peng*; and Ashry, Noha Mohamed. 2022. Ionic Strength-Dependent Adhesion of *Pseudomonas aeruginosa* PAO1 on Graphene Oxide Surfaces. *Environmental Science & Technology*, 56 (23), 16707–16715. [DOI: 10.1021/acs.est.1c08672].
29. Xu, Lilin; Liang, Yan*; Zhang, Rupin; Xu, Baile; Liao, Changjun; Xie, Tian; and **Wang, Dengjun**. 2022. Facilitated Transport of Microplastics and Nonylphenol in Porous Media with Variations in Physicochemical Heterogeneity. *Environmental Pollution*, 315, 120297. [DOI: 10.1016/j.envpol.2022.120297].
30. Chen, Hao; Yuan, Jiahui; Chen, Guanglei; Zhao, Xu; Wang, Shenqiang; **Wang, Dengjun**; Wang, Lei; Wang, Yujun; and Wang, Yu*. 2022. Long-Term Biochar Addition Significantly Decreases Rice Rhizosphere Available Phosphorus and its Release Risk to the Environment. *Biochar*, 4: 54. [DOI: 10.1007/s42773-022-00178-7].
31. Lyu, Xueyan; Xiao, Feng; Shen, Chongyang; Chen, Jingjing; Park, Chang Min; Sun, Yuanyuan; Flury, Markus; and **Wang, Dengjun***. 2022. Per- and Polyfluoroalkyl Substances (PFAS) in Subsurface Environments: Occurrence, Fate, Transport, and Research Prospect. *Reviews of Geophysics*, 60 (3), e2021RG000765. [DOI: 10.1029/2021RG000765] ([Highlight by AGU EOS](https://eos.org/research-spotlights/toxic-forever-chemicals-accumulate-above-the-water-table)).
- <https://eos.org/research-spotlights/toxic-forever-chemicals-accumulate-above-the-water-table>
 - <https://eos.org/editors-vox/widespread-forever-chemicals-in-subsurface-environments>
32. Yao, Zihao; **Wang, Dengjun**; Xu, Nan*; Du, Changsheng; Fang, Yifei; and Qi, Yanjie. 2022. Phosphate and Humic Acid Inhibit Corrosion of Green-Synthesized Nano-Iron Particles to Remove Cr(VI) and Facilitate Their Cotransport. *Chemical Engineering Journal*, 450, 136415. [DOI: 10.1016/j.cej.2022.136415].

33. Yu, Xin; Tong, Deli; Wang, Yu*; **Wang, Dengjun**; Xu, Lu; Li, Bo; and Sun, Wentao. 2022. Long-Term Rice Cultivation Promoted Microbial Mineralization of Organic P in a Black Soil. *Soil Science Society of America Journal*, 86 (3), 540–551. [DOI: 10.1002/saj2.20384].
34. **Wang, Dengjun***; Saleh, Navid B.; Byro, Andrew; Zepp, Richard; Sahle-Demessie, Endalkachew; Luxton, Todd P.; Ho, Kay T.; Burgess, Robert M.; Flury, Markus; White, Jason C.; and Su, Chunming*. 2022. Nano-Enabled Pesticides for Sustainable Agriculture and Global Food Security. *Nature Nanotechnology*, 17 (4), 347–360. [DOI: 10.1038/s41565-022-01082-8].
(Journal Cover: Circulated Among NSF CBET and USDA NIFA Program Directors, Highlighted by U.S. EPA, National Nano Coordination Office, The Season, Seed Today, AgriMarketing, and Other Media).
- <https://www.epa.gov/sciencematters/advancing-epas-understanding-next-generation-pesticides>
 - https://ocm.auburn.edu/newsroom/news_articles/2022/04/270953-nanomaterials.php
 - <https://agriculture.auburn.edu/research/nanomaterials-could-make-pesticide-use-more-efficient-and-sustainable/>
 - <https://agriculture.auburn.edu/research/nanomaterials-could-make-pesticide-use-more-efficient-and-sustainable/>
 - <https://www.seedtoday.com/article/270894/auburn-university-researcher-nanomaterials-could-make-pesticide-use-more-efficient-sustainable>
 - <https://www.agrimarketing.com/s/140693>
 - <https://spotonalabama.com/al-colleges/833665/auburn-university-researcher-nanomaterials.html>
 - <https://www.thisisalabama.org/2022/08/08/nanopesticides/>
35. Dong, Shunan*; Su, Xiaoting; Zhou, Mengzhu; Xia, Jihong; Wang, Lei; Wu, Huiyi; Suakollie, Emmanuel B., and **Wang, Dengjun**. 2022. Transport and Retention Patterns of Fragmental Microplastics in Saturated and Unsaturated Porous Media: A Real-Time Pore-Scale Visualization. *Water Research*, 214, 118195. [DOI: 10.1016/j.watres.2022.118195].
36. Li, Binrui; Liao, Peng*; Liu, Peng; **Wang, Dengjun**; Ye, Zhihang; Wang, Jingfu; Chen, Jingan; Ning, Zigong; Jiang, Yi; and Liu, Chongxuan*. 2022. Formation, Aggregation, and Transport of NOM-Cr(III) Colloids in Aquatic Environments. *Environmental Science: Nano*, 9 (3), 1133–1145. [DOI: 10.1039/D1EN00861G].
37. Lyu, Xueyan; Li, Zhengyu; **Wang, Dengjun**; Zhang, Qi; Gao, Bin; Sun, Yuanyuan*; and Wu, Jichun*. 2022. Transport of Perfluorooctanoic Acid in Unsaturated Porous Media Mediated by SDBS. *Journal of Hydrology*, 607, 127479. [DOI: 10.1016/j.jhydrol.2022.127479].

38. Ahmed, Riaz; Hamid, Ansley K.[†]; Krebsbach, Samuel A.[†]; He, Jianzhou^{‡*}; and **Wang, Dengjun***. 2022. Critical Review of Microplastics Removal from the Environment. *Chemosphere*, 293, 133557. [DOI: 10.1016/j.chemosphere.2022.133557].
39. Tang, Jie; Wang, Yun; Xue*, Qiang; Liu, Fei; Carroll, Kenneth C.; Lu, Xiaohua; Zhou, Taogeng; and **Wang, Dengjun**. 2022. A Mechanistic Study of Ciprofloxacin Adsorption by Goethite in the Presence of Silver and Titanium Dioxide Nanoparticles. *Journal of Environmental Sciences*, 118, 46–56. [DOI: 10.1016/j.jes.2021.08.052].
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101. Wang, Peng; Zhou, Dong-Mei*; Weng, Nanyan; **Wang, Dengjun**; and Peijnenburg, Willie J. G. M. 2011. Calcium and Magnesium Enhance Arsenate Rhizotoxicity and Uptake in *Triticum aestivum*. *Environmental Toxicology and*

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BOOK CHAPTERS (3):

1. **Wang, Dengjun**; Sun, Wenjie; and Su, Chunming. 2020. Chapter 4: Carbon Nanotube–Metal Oxide Nanocomposites. In: Raneesh B., Visakh, P. M. (Eds.) *“Metal Oxide Nanocomposites: Synthesis and Applications”*, 2020 Scrivener Publishing LLC.
2. Park, Chang Min; **Wang, Dengjun**; and Su, Chunming. 2018. Recent Developments in Engineered Nanomaterials for Water Treatment and Environmental Remediation, Chapter 46, 849–874. In: Hussain C.M. (Eds.) *“Handbook of Nanomaterials for Industrial Applications”*, Elsevier; The Netherlands, 1,143 pp.
3. Chu, Lingyang; **Wang, Dengjun**; Hao, Xiuzhen; and Zhou Dong-Mei. 2015. Chapter 3: Current Status and Characteristics Analysis of Contaminated Groundwater Remediation Technology. In: Zhang, X., Zhou, R., Hao, X., Li, G. (Eds.) *“Screening and Evaluation of Contaminated Groundwater Remediation Technology”*, Chinese Environmental Press: Beijing, China.

CONFERENCE ORGANIZATION (9):

1. **Wang, Dengjun**; Carroll, Kenneth C.; and Guo, Bo. 2023. Session H005: Advancements in the Occurrence, Transport, Transformation, and Remediation of Subsurface Contaminants (183991), *American Geophysical Union (AGU) Fall Meeting 2023*, December 11–15, San Francisco, CA, USA (108 Abstracts Received; 4 Oral Sessions, 1 eLightning Session, and 3 Poster Sessions).
2. Carroll, Kenneth C.; and **Wang, Dengjun**. 2023. Soil and Water Quality Impacted by Solute Transport and Remediation of Contaminants. *2023 ASA, CSSA, SSSA International Annual Meeting*, October 29–November 1, St. Louis, MO, USA (25 Abstracts Received; 11 Oral Presentations and 14 Poster Presentations).

3. **Wang, Dengjun;** Fan, Dimin; He, Jianzhou; and Su, Chunming. Session: Advances in the Occurrence, Fate, Transport, Transformation, and Remediation of Contaminants in the Environment (156598), *American Geophysical Union (AGU) Fall Meeting 2022*, December 12–16, Chicago, IL, USA (117 Abstracts Received; 5 Oral Sessions, 1 Online Poster Session, and 2 Poster Sessions).
4. **Wang, Dengjun;** and Su, Chunming. Session: Advances in the Occurrence, Fate, Transport, Transformation, and Remediation of Contaminants in Aquatic Environment (117453), *American Geophysical Union (AGU) Fall Meeting 2021*, December 13–17, New Orleans, LA, USA (72 Abstracts Received; 4 Oral Sessions, 2 Poster Sessions, and 1 eLightning Session).
5. Yan, Jing; Rod, Kenton; and **Wang, Dengjun.** Session: Nano-Colloids to Particulate Matters: Influence on the Biogeochemical Cycles of Elements in Terrestrial Environments (119180), *American Geophysical Union (AGU) Fall Meeting 2021*, December 13–17, New Orleans, LA, USA (8 Abstracts Received, Session Merged with other Sessions).
6. **Wang, Dengjun;** and Su, Chunming. Virtual Session: Recent Advances in the Occurrence, Fate, Transport, Transformation, and Remediation of Contaminants in Natural Environment (H101), *American Geophysical Union (AGU) Fall Meeting 2020*, December 1–17, San Francisco, CA, USA (40 Abstracts Received; 2 Oral Sessions and 1 Poster Session).
7. Rod, Kenton A.; Yan, Jing; and **Wang, Dengjun.** Session: Environmental Nanogeoscience: Occurrence and Behavior of Small Colloids and Nano-Colloids, From Pores to Watersheds (H052), *American Geophysical Union (AGU) Fall Meeting 2019*, December 9–13, San Francisco, CA, USA.
8. Benedetti, Marc F.; Dror, Ishai; Su, Chunming; and **Wang, Dengjun.** Session: Fate, Transport, and Remediation of Contaminants of Emerging Concern and Their Transformation Products in the Critical Zone (H058), *American Geophysical Union (AGU) Fall Meeting 2019*, December 9–13, San Francisco, CA, USA.
9. Benedetti, Marc F.; **Wang, Dengjun;** Su, Chunming, and Park Chang Min. Chaired Session (H11E, H12F, H13D, and H21M): Fate, Transport and Remediation of Contaminants of Emerging Concern and Their Transformation Products in the Critical Zone, *American Geophysical Union (AGU) Fall Meeting 2018*, December 10–14, Washington, D. C., USA.

SPECIAL ISSUE ORGANIZATION (4):

1. Dong, Shunan; **Wang, Dengjun;** Chen, Hao; Xu, Yi; and You, Guoxiang. 2023. Topics of “Advances in Environmental Behaviors of Persistent Contaminants:

Fate, Distribution, Risk, and Challenges” on *Agronomy, Land, Plants, Toxics*, and *Water* (<https://www.mdpi.com/topics/J9UYUOXQ64>).

2. Liu, Jin; and **Wang, Dengjun**. Special Issue of “Nutrient Transformation and Cycling Mechanisms in Agroecosystems Using Innovative Approaches” on *Agronomy* (https://www.mdpi.com/journal/agronomy/special_issues/agroecosystems_nutrient_transformation).
3. He, Jianzhou; **Wang, Dengjun**; and Su, Chunming. Special Issue of “Transport and Cotransport of Colloids, Nanomaterials, PFAS, and Plastics in Porous Media” on *Toxics* (MDPI; https://www.mdpi.com/journal/toxics/special_issues/colloids_nanomaterials).
4. **Wang, Dengjun**; Morales, Veronica; and Wu, Lei. Special Issue of “Colloid and Pathogen Transport in Groundwater” on *Water* (MDPI; www.mdpi.com/journal/water/special_issues/colloid_transport).

INVITED PRESENTATIONS (18):

1. **Wang, Dengjun**. *Biochar-Enabled Platform for PFAS Sorption and Degradation in Water*. School of Civil and Environmental Engineering, Georgia Institute of Technology, October 4, 2023, Atlanta, GA, USA.
2. **Wang, Dengjun**. *Research Advancement in Per- and Polyfluoroalkyl Substances (PFAS) and Phosphorus in Water and Soil*, Department of Crop, Soil, and Environmental Science, Auburn University, September 18, 2023, Auburn, AL, USA.
3. **Wang, Dengjun**. *Research Advancement in Nano-Enabled Agricultural Products and PFAS*, Biosystems Engineering Department, Samuel Ginn College of Engineering, Auburn University, November 3, 2022, Auburn, AL, USA.
4. Adhikari, Sushil; and **Wang, Dengjun**. *Biochar: Cleaning Air, Water, and Improving Soil Health (Virtual)*, Auburn University Water Resources Center, January 19, 2022, Auburn, AL, USA.
5. **Wang, Dengjun**. *Nanotechnology Showed the Potential for Environmental and Agricultural Applications (Virtual)*, Nanjing University, Nanjing, January 4, 2022, China.
6. **Wang, Dengjun**. *Potential Opportunities of Nanotechnology for Environmental and Agricultural Applications (Virtual)*, China Agriculture University, January 12, 2022, Beijing, China.

7. **Wang, Dengjun.** *Research Colloquium Series for the College of Agriculture at Auburn University (Virtual)*, October 18, 2021. Auburn, AL, USA.
8. **Wang, Dengjun.** *Addressing Challenges in Aquatic Environments by Synergistically Coupling Nanotechnology and Stable Isotope Techniques (Virtual)*, Department of Physical Sciences – The Chemistry Program, Emporia State University, March 22, 2021, Emporia, KS, USA.
9. **Wang, Dengjun.** *Potential Opportunities of Coupling Nanotechnology and Stable Isotope Techniques to Addressing Challenges in Aquatic Environments (Virtual)*, Environmental and Ecological Engineering Seminar Series, Department of Civil and Environmental Engineering, Samuel Ginn College of Engineering, Auburn University, Auburn, February 26, AL, USA.
10. **Wang, Dengjun.** *Opportunities of Using Nanotechnology and Stable Isotope Techniques to Addressing Challenges in the Environment (Virtual)*, Department of Chemistry, Oakland University, April 10, 2020, Rochester, MI, USA.
11. **Wang, Dengjun.** *Opportunities of Coupling Nanotechnology and Stable Isotope Techniques to Addressing Challenges in Aquatic Environments*, School of Fisheries, Aquaculture, and Aquatic Sciences, Auburn University, February 27, 2020, Auburn, AL, USA.
12. **Wang, Dengjun.** *Opportunities of Nanohybrids in Addressing Water-Agriculture-Environment Nexus*, *Desert Research Institute*, May 3, 2019, Reno, NV, USA.
13. **Wang, Dengjun.** *Fate and Transport of Next-Generation Multifunctional Carbon—Metal Oxide Nanohybrids in the Subsurface Environment.* *The National Academies of Science – Research Associate Program*, Robert S. Kerr Environmental Research Center, Groundwater, Watershed, and Ecosystem Restoration Division, National Risk Management Research Laboratory, Office of Research and Development, U.S. EPA, November 7, 2017, Ada, OK, USA.
14. **Wang, Dengjun.** *Environmental Implications and Applications of Next-Generation Multifunctional Carbon—Metal Oxide Nanohybrids: Fate, Transport, and Environmental Remediation*, *Groundwater, Watershed, and Ecosystem Restoration Division, National Risk Management Research Laboratory, Office of Research and Development, U.S. EPA*, October 18, 2017, Ada, OK, USA.
15. **Wang, Dengjun.** *Transport of Four Types of Typical Engineered Nanoparticles in a Red Soil (Ultisol)*, *Key Laboratory of Soil Environment and Pollution Remediation, Institute of Soil Science, Chinese Academy of Sciences*, January 6, 2014, Nanjing, Jiangsu Province, China.

16. **Wang, Dengjun.** Transport of Engineered Nanoparticles in Water-Saturated Porous Media, *College of Natural Resources and Environment, Northwest A & F University*, December 3, 2013, Yangling, Shanxi Province, China.
17. **Wang, Dengjun.** Mobility of Four Types of Typical Engineered Nanoparticles in a Red Soil, *The 16th Meeting of Soil Environment Professional Committee of the Soil Science Society of China*, May 25, 2013, Nanchang, Jiangxi Province, China.
18. **Wang, Dengjun.** Transport of Biochar Particles in Saturated Granular Media: Effects of Particle Size and Concentration, *U.S. Salinity Laboratory, Agricultural Research Service, United States Department of Agriculture*, August 8, 2012, Riverside, CA, USA.

CONFERENCE/MEETING PRESENTATIONS (56 IN TOTAL; †STUDENTS; ‡POSTDOC; *CORRESPONDING AUTHOR):

1. **Wang, Dengjun***; He, Jianzhou‡; and Radwan, Islam‡. 2024. Biochar-Enabled Platform for PFAS Sorption and Degradation by Advanced Reduction Process (#3981673). American Chemical Society (ACS) Spring 2024, March 17–21, New Orleans, LA, USA.
2. **Wang, Dengjun***; Hamid, Ansley†; Chu, Lingyang†; and Zou, Shiqiang. 2023. Phosphorus Removal by Cost-Effective Gypsum from Water (#1238930). *American Geophysical Union (AGU) Fall Meeting 2023*, December 11–15, San Francisco, CA, USA.
3. **Wang, Dengjun***; Men, Yujie; Fan, Dimin; Su, Chunming; Danko, Anthony S.; and Tratnyek, Paul G. 2023. Abiotic and Biotic Transformation of PFAS Precursors at Oxidic–Anoxic Transition Zones in AFFF-Impacted Soil and Groundwater (ER23-3620). *SERDP-ESTCP-OECIF-OEPF Annual Symposium 2023*, November 28–December 1, Arlington, VA, 2023.
4. **Wang, Dengjun***; He, Jianzhou‡; Fan, Dimin; Su, Chunming; and Tratnyek, Paul G. 2023. Engineering an “all-in-one” Biochar-Surfactant System (BSS) for Enhanced PFAS Sorption and Degradation Using a Coupled UV and Ultrasonication Approach (ER22-3150). *SERDP-ESTCP-OECIF-OEPF Annual Symposium 2023*, November 28–December 1, Arlington, VA, 2023.
5. He, Jianzhou‡; and **Wang, Dengjun***. 2023. Transformation of PFAS Precursors in Treatment Train System (#153089). *ASA-CSSA-SSSA International Annual Meeting*, October 29–November 1, St. Louis, MO, USA.
6. **Wang, Dengjun***; and Jianzhou He‡. 2023. Synergistic Effects of Biochar and Surfactant on the Enhanced Destruction of PFAS in the UV/Sulfite System

- (#148150). *ASA-CSSA-SSSA International Annual Meeting*, October 29–November 1, St. Louis, MO, USA.
7. **Wang, Dengjun***; and Hamid, Ansley[†]. 2023. Sorptive Removal of Phosphorus (P) by Flue Gas Desulfurization FGD Gypsum in Batch and Column Systems (#148149). 2023 *ASA-CSSA-SSSA International Annual Meeting*, October 29 – November 1, St. Louis, MO, USA.
 8. **Wang, Dengjun***; Song, Ziteng[‡]; and He, Jianzhou[‡]. 2023. Biochar-Enabled Platform Emerges as a Cost-Effective and Efficient Solution for PFAS Removal from Water. *2023 Alabama Water Resources Conference*, September 6–8, Orange Beach, AL, USA.
 9. **Wang, Dengjun***. 2023. Biochar-Surfactant System for PFAS Sorption and Destruction (ER22-3150). *SERDP & ESTCP Project Meeting*, July 31 – August 4, Portland, OR, USA.
 10. **Wang, Dengjun***; He, Jianzhou[‡]; and Krebsbach Samuel[†]. 2023. Can We Remove PFAS Forever Chemicals Cost-Effective from Water? *2023 Southeast Society of Environmental Toxicology and Chemistry (SE SETAC) Meeting*, Auburn University, April 14–15, Auburn, AL, USA.
 11. Zinnert, Hannah[†]; Torbert, Allen H.; **Wang, Dengjun**; and Wilson, Alan, E*. 2023. Biogeochemical Impacts of Flue Gas Desulfurization Gypsum (FGDG) in Catfish Aquaculture Ponds. *Auburn University Water & Climate Symposium*, Auburn University, March 21, Auburn, AL, USA.
 12. Hamid, Ansley[†]; and **Wang, Dengjun***. 2023. Potential of Using FGD Gypsum to Remove Phosphorus from Aquaculture Ponds. *Auburn University Water & Climate Symposium*, Auburn University, March 21, Auburn, AL, USA.
 13. **Wang, Dengjun***; He, Jianzhou[‡]; and Krebsbach, Samuel[†]. 2022. Efficient Removal of Per- and Polyfluoroalkyl Substances (PFAS) in Biochar-Surfactant Systems by Hydrated Electrons. *American Geophysical Union (AGU) Fall Meeting 2022*, December 12–16, Chicago, IL, USA.
 14. **Wang, Dengjun***; He, Jianzhou[‡]; Hayworth Joel S; Fan, Dimin; and Tratnyek, Paul G. 2022. Engineering an “All-In-One” Biochar-Surfactant System (BSS) for Enhanced PFAS Sorption and Reductive Degradation Using a Coupled UV and Ultrasonication Approach (ER22-3150). *2022 SERDP, ESTCP, OE-Innovation Symposium*, November 29 – December 2, Arlington, VA, USA.
 15. Davis, Leonard Cole[†]; Krebsbach, Samuel[†]; and **Wang, Dengjun***. 2022. Engineering Biochars for the Efficient Removal of PFAS. *2022 Annual*

- Technical Meeting, Oklahoma Academy of Science*, November 4, 2022.
Oklahoma State University Center, Tulsa, Oklahoma, USA.
16. Krebsbach, Samuel[†]; He, Jianzhou[‡]; and **Wang, Dengjun***. 2022. Engineering Cost-Effective Biochars for Efficient Removal of PFAS in Water. *Alabama Water Resources Conference*, September 7–9. Orange Beach, Alabama, USA.
 17. Hamid, Ansley[†]; and **Wang, Dengjun***. 2022. Flue Gas Desulfurization (FGD) Gypsum can Effectively Remove Phosphorous (P) from Water. *Alabama Water Resources Conference*, September 7–9. Orange Beach, Alabama, USA.
 18. Davis, Leonard Cole[†]; Krebsbach, Samuel[†]; and **Wang, Dengjun***. 2022. Utilization of Biochar to Cleanse Water of PFAS. *REU Warm-Water Aquatic Ecology*, July 22, 2022. Auburn, Alabama, USA.
 19. Hamid, Ansley[†]; and **Wang, Dengjun***. 2022. Gypsum Has the Potential to Control Phosphorus in Aquacultural Ponds. *Arkansas Water Resources and Watersheds Conference*, July 13–14, Fayetteville, Arkansas, USA.
 20. **Wang, Dengjun**. Nano-Enabled Pesticides for Sustainable Agriculture. *US-North Africa Conference: Nanotechnology Convergence for Sustainable Energy, Environment and Health (Virtual) (Plenary Presentation)*, April 4–8, 2022.
 21. Fang, June; Wallace, Rosie Anna; **Wang, Dengjun**; Su, Chunming; and Wilkin, Rick. 2021. Field Scale Applications of Biochar for Water Remediation: A Review. *American Geophysical Union (AGU) Fall Meeting 2021*, December 13–17, 2021. New Orleans, LA, USA.
 22. **Wang, Dengjun**. 2021. Cost-Effective and Sustainable Biochar has the Potential to Effectively Sorb and Destruct PFAS in Water (Poster 416). *SERDP-ESTCP Symposium. Nov 30 – Dec 3, 2021*, Arlington, VA, USA.
 23. **Wang, Dengjun**, Wilson, Alan E, and Stoeckel, James A. Cost-Effective and Sustainable Biochar has the Ability to Sorb and Facilitate Degradation of PFAS in Water. *2021 Alabama Water Resources Conference Symposium*. September 8–10, 2021, Orange Beach, AL, USA.
 24. **Wang, Dengjun**. Biochar is Well-Positioned to Addressing Challenges in PFAS Remediation (Poster Presentation #3584524). *American Chemical Society (ACS) Fall Meeting 2021*, August 22–26, 2021, Atlanta GA, USA.
 25. **Wang, Dengjun**. *NNCI Nanoscience Earth and Environmental Science Research Community Virtual Workshop*, May 24–26, 2021.

26. **Wang, Dengjun.** *Carolinas and Southeast SETAC Joint Regional Chapter Meeting (Virtual)*, May 17–18, 2021.
27. **Wang, Dengjun.** Byro, Andrew; Saleh, Navid B.; and Su, Chunming. Next-Generation Intelligent Nanopesticides: Challenges and Opportunities Toward Achieving Sustainable Agriculture (Poster Presentation). *American Geophysical Union (AGU) Fall Meeting 2020*, Cyberspace – Virtual, December 1–17, 2020, USA.
28. **Wang, Dengjun;** and Su, Chunming. Next-Generation Intelligent Nanopesticides for Co-Achieving Sustainable Agriculture and Global Food Security (Poster Presentation). *9th Nano Conference of the Sustainable Nanotechnology Organization*, Cyberspace – Virtual, November 12–13, 2020.
29. Hammond, Christian Bentum; Wu, Lei; Shen, Chongyang; **Wang, Dengjun;** and Chen, Hao. Real-Time Investigations of Aggregation of Sulfur Rich Asphaltene and their Implications for Groundwater/Soil Remediation (Poster Presentation). *American Geophysical Union (AGU) Fall Meeting 2020*, December 1–17, 2020, San Francisco, CA, USA.
30. Su, Chunming; **Wang, Dengjun;** and Park, Chang Min. 2020. Groundwater Remediation using Environmental Nanotechnology (Keynote Presentation). The 6th International Water Industry Conference, September 21–23, Daegu, Korea.
31. **Wang, Dengjun.** *The 8th World Sustainability Forum – WSF 2020*, September 15–17, Virtual, Switzerland, 2020.
32. **Wang, Dengjun;** Saleh, Navid B.; and Su, Chunming. Opportunities of Next-Generation Multifunctional Carbon-Metal Nanohybrids for Newly-Emerging Contaminant Removal from Water (Oral Presentation: H41C-06). *American Geophysical Union (AGU) Fall Meeting 2019*, December 9–13, 2019, San Francisco, CA, USA.
33. **Wang, Dengjun.** *Remediation Workshop in Tulsa*, June 11, 2019, Tulsa, OK, USA.
34. **Wang, Dengjun;** and Su, Chunming. 2019. Next-Generation Multifunctional Carbon-Metal Nanohybrids for Energy and Environmental Applications (Poster Presentation). *Environmental Nanotechnology Gordon Research Conference*, June 2–7, 2019, Newry, ME, USA.
35. **Wang, Dengjun;** Park, Chang Min; Aich, Nirupam; and Su, Chunming. Modeling and Predicting the Transport of the ‘New-Horizon’ Multifunctional

Carbonaceous—Metal Oxide Nanohybrids in the Subsurface Environments (Poster Presentation: H21M-1866). *American Geophysical Union (AGU) Fall Meeting 2018*, December 10–14, 2018, Washington, D. C., USA.

36. Li, Qiang; **Wang, Dengjun**; Jin, Yan; and Jaisi, Deb P. Loading and Bioavailability of Particulate Phosphorus in the Estuarine Gradient of the Deer Creek-Susquehanna River Transect (Oral Presentation). *11th International Symposium on Agriculture and the Environment*, October 14–18, 2018, Nanjing, China.
37. Park, Chang Min; **Wang, Dengjun**; and Su, Chunming. Evaluation of the Colloidal Stability and Adsorption Performance of Reduced Graphene Oxide–Elemental Silver/Magnetite Nanohybrids for Selected Heavy Metals in Aqueous Solutions (Poster Presentation). *4th International Water Industry Conference 2018: New Paradigm of Water Industry*, September 11–14, 2018, Buk-gu, Daegu, Korea.
38. Park, Chang Min; **Wang, Dengjun**; and Su, Chunming. Carbon-Metal/Metal Oxides Nanohybrids for Environmental Remediation (Oral Presentation), *Open Campus Seminar, Department of Environmental Engineering, Kyungpook National University*, Daegu, South Korea. 2018.
39. Park, Chang Min; **Wang, Dengjun**; and Su, Chunming. Nanohybrids of Reduced Graphene Oxide/Carbon Nanotubes and Metal/Metal Oxides in Aqueous Solutions and Saturated Porous Media: Remediation, Fate, and Transport (Oral Presentation), *Department of Environmental Science and Ecological Engineering, Korea University*, Seoul, South Korea. 2018.
40. **Wang, Dengjun**. *Remediation Workshop in Tulsa*, June 13, 2018, Tulsa, OK, USA.
41. Cline, Hope Marie; **Wang, Dengjun**; and Su, Chunming. Transport of the “New-Horizon” Carbonaceous—Metal Oxide Nanohybrids in Water-Saturated Porous Media (Poster Presentation). *East Central University (ECU) McNair Scholars Program*, April 17, 2018, Ada, OK, USA.
42. Clymer, Maranda Robin; **Wang, Dengjun**; and Su Chunming. Unravelling the Aggregation Behaviors of the Next-Generation Carbonaceous—Metal Oxide Nanohybrids in Aqueous Solutions (Poster Presentation). *East Central University (ECU) McNair Scholars Program*, April 17, 2018, Ada, OK, USA.
43. Park, Chang Min; **Wang, Dengjun**; and Su, Chunming. Nanohybrids of Reduced Graphene Oxide/Carbon Nanotubes and Metal/Metal Oxides in Aqueous Solutions and Saturated Porous Media: Remediation, Fate, and Transport (Oral

- Presentation). *The 9th International Conference on New & Renewable Energy*, March 26–27, 2018, Kyungpook National University, Daegu, South Korea.
44. **Wang, Dengjun;** and Su, Chunming. Transport and Retention of Carboxymethylcellulose-Modified Carbon Nanotube-Magnetite Nanohybrids in Water-Saturated Porous Media (Oral Presentation: H22E-01), *American Geophysical Union (AGU) Fall Meeting 2017*, December 11–15, 2017, New Orleans, LA, USA.
 45. Su, Chunming; **Wang, Dengjun;** Park, Chang Min; and Aich, Nirupam. Aggregation, Sedimentation, Transport, and Remedial Applications of Nanohybrids of Reduced Graphene Oxide/Carbon Nanotube and Metal/Metal Oxides (Oral Presentation), *2017 2nd International Conference on Environmental Engineering and Sustainable Development*, December 8–10, 2017, Koh Samui, Thailand.
 46. Li, Qiang; **Wang, Dengjun;** Jin, Yan; and Jaisi, Deb P. Seasonal Variation and Potential Sources of Particulate Phosphorus in Susquehanna River in the Chesapeake Bay Watershed (Oral Presentation), *ASA, CSSA & SSSA International Annual Meeting 2017*, October 22–25, 2017, Tampa, FL, USA.
 47. Park, Chang Min; **Wang, Dengjun;** and Su, Chunming. Nanohybrid Materials: Fate, Transport, and Remediation (Oral Presentation), *The 3rd International Water Industry Conference: Water Sustainability*, September 19–22, 2017, Hwangnyongwon & HICO, Gyeongju, South Korea.
 48. **Wang, Dengjun.** *Dallas Remediation Workshop*, September 12, 2017, Dallas, TX, USA.
 49. **Wang, Dengjun.** *Dallas Remediation Workshop*, January 10, 2017, Dallas, TX, USA.
 50. **Wang, Dengjun;** Zhou, Dong-Mei; and Jin, Yan. Solution Chemistry Determines Deposition and Successive Detachment of Graphene Oxide Nanoparticles in Uncoated and Iron Oxide-Coated Sand (Oral Presentation: H23M-08), *American Geophysical Union (AGU) Fall Meeting 2016*, December 12–16, 2016, San Francisco, CA, USA.
 51. Williams, Tristum; Li, Qiang; **Wang, Dengjun;** Jin, Yan; and Jaisi, Deb P. Speciation of Particulate, Colloidal, and Dissolved P Pools along the Continuum from Agriculture-Dominated Runoff of the Mouth of the Susquehanna River in the Chesapeake Bay (Poster Presentation), *Environmental Program to Stimulate Competitive Research (EPSCoR)*, August 10, 2016, University of Delaware, Newark, DE, USA.

52. **Wang, Dengjun;** Jaisi, Deb P.; and Jin, Yan. Effects of Low-Molecular-Weight Organic Acids on the Dissolution of Hydroxyapatite Nanoparticles in Batch and Column Experiments: A Perspective from Phosphate Oxygen Isotope Fractionation (Oral Presentation: H14D-03), *American Geophysical Union (AGU) Fall Meeting 2015*, December 14–18, 2015, San Francisco, CA, USA.
53. **Wang, Dengjun;** Jin, Yan; and Jaisi, Deb P. Cotransport of Hydroxyapatite and Goethite Nanoparticles in Saturated Porous Media (Poster Presentation: 681), *The 7th International Conference on Porous Media & Annual Meeting*, May 18–21, 2015, Padova, Italy.
54. **Wang, Dengjun;** and Zhou, Dong-Mei. Transport of Biochar Nanoparticles in Water-Saturated Sand (Poster Presentation: P-8), *International Water Association (IWA) Symposium on Environmental Nanotechnology 2013*, April 24–27, 2013, Nanjing, Jiangsu Province, China.
55. **Wang, Dengjun;** Bradford, Scott Alan; and Zhou, Dong-Mei. Transport of Hydroxyapatite Nanoparticles in Saturated Granular Media (Poster Presentation: H53B-1411), *American Geophysical Union (AGU) Fall Meeting 2011*, December 5–9, 2011, San Francisco, California, USA.
56. **Wang, Dengjun;** and Zhou, Dong-Mei. Transport of Hydroxyapatite Nanoparticles in Water-Saturated Porous Media (Poster Presentation), *The 6th National Conference on Environmental Chemistry, China*, September 21–24, 2011, Shanghai, China.

TEACHING:

- Water Science (Fish 5220/6220), Fall 2023, Auburn University.
- Water Science (Fish 5220/6220), Fall 2022, Auburn University.
- Water Science (Fish 5220/6220), Fall 2021, Auburn University.

INVITED GUEST LECTUER (6):

1. Introduction to Environmental Science (ENVI 1010). Per- and Polyfluoroalkyl Substances in the Environment. Department of Crop, Soil, and Environmental Sciences, *Auburn University*, October 3, Auburn, AL, USA.
2. Conservation Ecology. Department of Biological and Environmental Sciences, College of Health and Sciences, *East Central University*, March 26, 2020, Ada, OK, USA.
3. Water and Solute Movement in Soils (3-hours lab demonstration). Department of Biological and Environmental Sciences, College of Health and Sciences, *East Central University*, March 11, 2020, Ada, OK, USA.

4. Redox Potential. School of Fisheries, Aquaculture, and Aquatic Sciences, College of Agriculture, *Auburn University*, February 27, 2020, Auburn, AL, USA.
5. Water Quality and Treatment (EHS 3553). Department of Biological and Environmental Sciences, College of Health and Sciences, *East Central University*, Fall 2019, Ada, OK, USA.
6. General Biology (BIOL 1114). Department of Biological and Environmental Sciences, College of Health and Sciences, *East Central University*, Fall 2019, Ada, OK, USA.

MEMBERSHIPS IN PROFESSIONAL SOCIETY (8):

1. Soil Science Society of American (SSSA), 2023 – Present.
2. Society of Environmental Toxicology and Chemistry (SETAC) Southeast Region, 2021 – Present.
3. International Society of Limnology (SIL), 2021 – Present.
4. Association for the Sciences of Limnology and Oceanography (ASLO), 2021 – Present.
5. Chinese American Professors in Environmental Engineering and Science (CAPEES), 2020 – Present.
6. Association of Environmental Engineering & Science Professors (AEESP), 2017 – Present.
7. American Chemistry Society (ACS), 2017 – Present.
8. American Geophysical Union (AGU), 2015 – Present.

STUDENT AND POSTDOC MENTORING AT AUBURN UNIVERSITY (7):

1. Sahar Elkaeibehjati, Incoming Ph.D. student, 01/01/2024 –
2. Islam Radwan, Postdoc, 08/18/2023 – Present.
3. Chongyang Wang, Ph.D. student, 08/15/2023 – Present.
4. Ziteng Song, Ph.D. student, 01/01/2023 – Present.
5. Jianzhou He, Postdoc, 06/05/2022 – Present.
6. Samuel A. Kresbach, M.S., 08/16/2021 – 05/31/2023.
Brice Environmental in Alaska (06/2023 – Present).
7. Ansley K. Hamid, M.S., 08/15/2021 – 05/31/2023.
Texas Commission of Environmental Quality (06/2023 – Present).

STUDENT COMMITTEE AT AUBURN UNIVERSITY (5):

1. *Jiaxiang (Jason) Zhao*, Ph.D., 09/2023 – Present.
2. *Ashley Hennessey*, M.S., 05/2023 – Present.
3. *Matthew F. Gladfelter*, Ph.D., 03/2022 – Present.
4. *Suzanne Tension*, M.S., 08/2021 – Present.

5. *Hannah Zinnert*, M.S., 08/2021 – 08/2023.

MENTORED UNDEGRADUATE STUDENTS (11):

1. *Steven Mai*, Undergraduate Research Assistant, Auburn University, August 2023 – Present.
2. *Ashlyn Kortman*, Undergraduate Research Assistant, Auburn University, February 2022 – January 2023.
3. *Leonard Cole Davis*, East Central University (ECU), REU Warm-Water Summer Program at Auburn University, May 2022 – July 2022.
4. *Lyndsay Daigle*, Undergraduate Research Assistant, Auburn University, January 2022 – June 2022.
5. *Matthew Maloof*, Undergraduate Research Assistant, Auburn University, January 2021 – May 2021.
6. *Russell McCreary*, Environmental Research Apprenticeship Program (ERAP) Scholar, January 2020 – December 2020.
7. *Maranda Robin Clymer*, East Central University (ECU), McNair Scholar, December 2017 – April 2018.
8. *Hope Marie Cline*, East Central University (ECU), McNair Scholar, December 2017 – April 2018.
9. *Gary Brooks*, East Central University (ECU), Environmental Research Apprenticeship Program (ERAP) Scholar, November 2017 – May 2018.
10. *Courtney Taylor*, East Central University (ECU), Environmental Research Apprenticeship Program (ERAP) Scholar, January 2017 – May 2017.
11. *Tristum Williams*, Florida Agricultural & Mechanical University; Summer Intern at the University of Delaware, May 2016 – August 2016.

PH.D. DISSERTATION (5):

1. *Tawsif Rahman*, Department of Biosystems Engineering, **Auburn University**, Auburn, AL, USA., Ph.D., Dissertation Examiner (University Reader), 11/2022.
2. *Yue Liang*, Department of Chemical Engineering, **Auburn University**, Auburn, AL, USA., Ph.D., Dissertation Examiner (University Reader), 10/2022.
3. *Yangmo Zhu*, Department of Civil and Environmental Engineering, **Auburn University**, Auburn, AL, USA., Ph.D., Dissertation Examiner (University Reader), 07/2022.
4. *Jingtao Wu*, School of Agriculture and Food Sciences, **The University of Queensland**, Australia, Ph.D. Dissertation Examiner, 03/2021.
5. *Lei Xiong*, School of Agriculture and Food Sciences, **The University of Queensland**, Australia, Ph.D. Dissertation Examiner, 09/2018.

UNIVERSITY AND SCHOOL SERVICE (AUBURN UNIVERSITY; 3):

1. Curriculum Committee Member, School of Fisheries, Aquaculture and Aquatic Sciences, May 2023 – Present.

2. Seminar Committee Member, School of Fisheries, Aquaculture and Aquatic Sciences, March 2022 – Present.
3. Graduation Committee Member, Auburn University, February 2022 – Present.

JOURNAL ASSOCIATE EDITOR AND EDITORIAL BOARD MEMBER (6):

1. Associate Editor, *Frontiers in Environmental Chemistry*, Frontiers, 2022 – Present.
2. Editorial Board Member, *Journal of Hazardous Materials*, Elsevier, 2022 – Present.
3. Editorial Board Member, *Journal of Hazardous Materials Advances*, Elsevier, 2022 – Present.
4. Editorial Board Member, *Frontiers of Environmental Science & Engineering*, Springer, 2022 – Present.
5. Editorial Board Member, *Chemical Engineering Journal Advances*, Elsevier, 2021 – Present.
6. Associate Editor in Training, *Inland Waters*, Taylor & Francis, 2021 – Present.

BOOK PROPOSAL REVIEWER (2):

- Elsevier.
- Taylor & Francis Group, LLC.

JOURNAL REVIEWER (400+ Reviews for ~75 Journals):

ACS Applied Materials & Interfaces; ACS Applied Nano Materials; ACS ES&T Water; ACS Nano; Acta Geochimica; Agriculture; Advanced Biology; ASCE Journal of Environmental Engineering; Ecosystems & Environment; Applied Mathematical Modelling; Biochemistry and Biotechnology Research; British Journal of Environment and Climate Change; Chemical Engineering Journal; Chemical Engineering Journal Advances; Chemical Geology; ChemistrySelect; Chemosphere; Clean Technologies; Colloids and Surfaces A: Physicochemical and Engineering Aspects; Colloids and Surfaces B: Biointerfaces; Critical Reviews in Environmental Science and Technology; European Journal of Soil Science; Environment International; Environmental Pollution; Environmental Pollutants and Bioavailability; Environmental Science: Nano; Environmental Science: Processes & Impacts; Environmental Science and Pollution Research; Environmental Reviews; Environmental Science & Technology; Environmental Science & Technology Letters; Frontiers of Environmental Science & Engineering; Geochimica et Cosmochimica Acta; Geoderma; Geoderma Regional; GeoHealth; Groundwater for Sustainable Development; International Journal of Environmental Research and Public Health; Journal of Alloys and Compounds; Journal of Chemistry; Journal of Contaminant Hydrology; Journal of Environmental Chemical Engineering; Journal of Environmental Quality; Journal of Environmental Management; Journal of Hazardous Materials; Journal of Hazardous Materials Advances; Journal of Industrial and Engineering Chemistry; Journal of Nanostructure in Chemistry; Journal of Soils and

Sediments; Journal of Water Process Engineering; Materials Chemistry and Physics; Materials Chemistry and Physics; Materials Today Chemistry; Mathematics; Microorganisms; Minerals; NanoImpact; Nature Food; Nature Nanotechnology; Open Chemistry Journal; Pedosphere; Plant and Soil; PLOS One, Renewable Agriculture and Food Systems; Research on Chemical Intermediates; Reviews of Environmental Contamination and Toxicology; RSC Advances; Science of the Total Environment; Soil Science Society of America Journal; Sustainability; Technologies; Vadose Zone Journal; Waste Management; Water; Water, Air, & Soil Pollution; Water Research; Water Resources Research.

OTHER ACADEMIC ACTIVITIES:

1. Develop a Standard Operating Procedure (SOP) of ***“Use of PerkinElmer Lambda 35 UV-VIS Spectrophotometer for Measurement of the Concentration of Engineered Nanomaterials in Aqueous Solutions (SOP No.: NRMRL-GWERD-17-0)”*** for the Groundwater, Watershed, and Ecosystem Restoration Division (GWERD), National Risk Management Research Laboratory (NRMRL), Office of Research and Development (ORD), U.S. Environmental Protection Agency (EPA); effective on 08-18-2017.
2. ***Internal Reviewer*** for U.S. EPA reports and white papers; 08/2019 – 12/2020.
3. ***External Reviewer*** for U.S. EPA reports and white papers; 07/2023 – Now.
4. ***Technical Committee Member*** for The International Workshop on Environment and Geoscience 2020, July 18–20, 2020, Chengdu, China.
5. ***Technical Committee Member*** for Advanced Functional Materials Congress, March 23–25, 2020, Stockholm, Sweden.
6. ***Technical Committee Member*** for The Second International Workshop on Environment and Geoscience, July 17–19, 2019, Hangzhou, China.
7. ***Technical Committee Member*** for 2018 International Conference on Construction, Aviation and Environmental Engineering (ICCAE 2018), November 23–25, Vanung University, Taoyuan City, Taiwan.
8. ***Technical Committee Member*** for 2017 International Conference on Environmental Science and Energy Engineering, December 15–17, Sanya, Hainan Province, China.
9. ***Virtual Poster Showcase Reviewer*** for 2017 AGU Fall Meeting (Earth & Space Science).
10. ***Virtual Poster Showcase Reviewer*** for Spring 2018 AGU (Earth & Space

Science).

11. **Judge** for 2019 – 2021 AGU Fall Meeting, Outstanding Student Presentation Awards (OSPA).
12. Media coverage at ABC33/40: 'Forever Chemicals' contaminate drinking water, including East AL city water supply <https://abc3340.com/news/local/forever-chemicals-contaminating-drinking-water-across-the-country-at-alarming-levels-pfas-gadsden-etowah-county-adem-3m-water-works>.
13. **Scientific Committee Member** for the 4th International Conference on Environmental Pollution, Restoration, and Management, Quy Nhon, March 4–7, 2024.