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PROFESSIONAL APPOINTMENTS

Assistant Professor & The Henry Samueli Career Development Chair University of California Irvine Department of Civil & Environmental Engineering	07/2018 – Date
National Research Council Postdoctoral Research Associate US Environmental Protection Agency NHEERL/AED, Narragansett, RI	10/2016 – 06/2018
Postdoctoral Scholar University of California, Santa Barbara Center for Environmental Implications of Nanotechnology	06/2015 – 09/2016

EDUCATION

PhD	University of California, Santa Barbara Bren School of Environmental Science & Management	2015
MESM	University of California, Santa Barbara Bren School of Environmental Science & Management	2011
BS	Obafemi Awolowo University, Ile-Ife, Nigeria Department of Microbiology	2006

TECHNICAL TRAINING/SEMINARS

Informatics and Statistics for Metabolomics. Organized by the Canadian Bioinformatics Workshops, June 11–12, 2018, Montreal, QC, Canada

Agilent 7900 ICP-MS Techniques & Operations. Organized by Agilent Technologies, April 26–29, 2016, Wood Dale, Illinois

Agilent 6400 Series QQQ LC/MS Techniques & Operation. Organized by Agilent Technologies, February 9–12, 2016, Wood Dale, Illinois

Comprehensive Capillary GC Seminar. Organized by Restek Corporation, April 16, 2010, Pasadena, CA

PEER-REVIEWED PUBLICATIONS (* authors contributed equally)

1. Wang, X.; **Adeleye, A. S.**; Wang, H.; Zhang, M.; Liu, M.; Wang, Y.; Li, Y.; Keller, A. A. (2019). Interactions between polybrominated diphenyl ethers (PBDEs) and TiO₂ nanoparticle in artificial and natural waters. *Water Research*, In press
2. Huang, Y.*; **Adeleye, A. S.***; Zhao, L.; Minakova, A. S.; Anumol, T.; Keller, A. A. (2019). Antioxidant response of cucumber (*Cucumis sativus*) exposed to nano copper pesticide: Quantitative determination via LC-MS/MS. *Food Chemistry*, 270:47–52. <https://doi.org/10.1016/j.foodchem.2018.07.069>
3. **Adeleye, A. S.**; Pokhrel, S.; Mädler, L.; Keller, A. A. (2018). Influence of nanoparticle doping on the colloidal stability and toxicity of copper oxide nanoparticles in synthetic and natural waters. *Water Research*, 132:12–22. <https://doi.org/10.1016/j.watres.2017.12.069>
4. Goodwin Jr., D. G.*; **Adeleye, A. S.***; Sun, L.; Ho, K.; Burgess, R.; Petersen, E. J. (2018). Detection and Quantification of graphene family nanomaterials in the environment. *Environmental Science & Technology*, 52 (8):4491–4513. <https://doi.org/10.1021/acs.est.7b04938>
5. Su, Y.; Qian, D.; **Adeleye, A. S.**; Zhang, J.; Zhou, X.; Jassby, D.; Zhang, Y. Impact of ageing on the fate of molybdate-zerovalent iron nanohybrid and its subsequent effect on Cyanobacteria (*Microcystis aeruginosa*) growth in aqueous media. *Water Research*, 140:135–147. <https://doi.org/10.1016/j.watres.2018.04.037>
6. **Adeleye, A. S.**; Wang, X.; Wang, F.; Hao, R.; Song, W.; Li, Y. (2018). Photoreactivity of graphene oxide (GO) in aqueous system: Reactive oxygen species formation and bisphenol A degradation. *Chemosphere*, 195:344–350. <https://doi.org/10.1016/j.chemosphere.2017.12.095>
7. Stevenson, L. M.; **Adeleye, A. S.**; Su, Y.; Zhang, Y.; Keller, A. A.; Nisbet, R. M. (2017). Remediation of cadmium toxicity by sulfidized nano-iron: the importance of organic material. *ACS Nano*, 11 (10):10558–10567. <https://doi.org/10.1021/acs.nano.7b05970>
8. Du, T.; **Adeleye, A. S.**; Keller, A. A.; Wu, Z.; Han, W.; Wang, Y.; Zhang, C.; Li, Y. (2017). Photochlorination-induced transformation of graphene oxide: Mechanism and environmental fate. *Water Research*, 124: 372–380. <https://doi.org/10.1016/j.watres.2017.07.054>
9. Keller, A. A.; **Adeleye, A. S.**; Conway, J. R.; Garner, K. L.; Zhao, L. *et al.* (2017). Comparative environmental fate and toxicity of copper nanomaterials. *NanoImpact*, 7: 28–40. <https://doi.org/10.1016/j.impact.2017.05.003>
10. Zhao, L.; Hu, Q.; H, Y.; Fulton, A. N.; Hannah-Bick, C.; **Adeleye, A. S.**; Keller, A. A. (2017). Activation of antioxidant and detoxification gene expression in cucumber plants exposed to a Cu(OH)₂ nanopesticide. *Environmental Science: Nano*, 4: 1750–1750. <https://doi.org/10.1039/C7EN00358G>
11. Zhao, L.; Huang, Y.; **Adeleye, A. S.**; Keller, A. A. (2017). Metabolomics reveals Cu(OH)₂ nanopesticide activated antioxidative pathways and decreased beneficial antioxidants in spinach leaves. *Environmental Science & Technology*, 51 (17):10184–10194. <https://doi.org/10.1021/acs.est.7b02163>

12. Stevenson, L. M.; Krattenmaker, K. E.; Johnson, E.; Bowers, A. J.; **Adeleye, A. S.**; McCauley, E.; Nisbet, R. M. (2017). Standardized toxicity testing may underestimate nanotoxicity: Environmentally-relevant food rations increase silver nanoparticle toxicity to *Daphnia*. *Environmental Toxicology & Chemistry*, 36 (11):3008–3018. <https://doi.org/10.1002/etc.3869>
13. Aceves Bueno, E.; **Adeleye, A. S.**; Feraud, M.; Huang, Y.; Tao, M.; Yang, Y.; Anderson S. E. (2017). The Accuracy of Citizen Science Data: A Quantitative Review. *Bulletin of the Ecological Society of America*, 98:278–290. <https://doi.org/10.1002/bes2.1336>
14. Hao, R.; Zhang, Y.; Du, T.; Yang, L.; **Adeleye, A. S.**; Li, Y. (2017). Effect of water chemistry on disinfection by-product formation in the complex surface water system. *Chemosphere*, 172: 384–391. <https://doi.org/10.1016/j.chemosphere.2016.12.034>
15. Zhai, H.; He, X.; Zhang, Y.; Du, T.; **Adeleye, A. S.**; Li, Y. (2017). Disinfection byproduct formation in drinking water sources: A case study of Yuqiao reservoir. *Chemosphere*, 181: 224–231. <https://doi.org/10.1016/j.chemosphere.2017.04.028>
16. Song, S.; Su, Y.; **Adeleye, A. S.**; Zhang, Y.; Zhou, X. (2017). Optimal design and characterization of sulfide-modified nanoscale zerovalent iron for diclofenac removal. *Applied Catalysis B: Environmental*, 201: 211–220. <https://doi.org/10.1016/j.apcatb.2016.07.055>
17. Zhao, L.; Hu, J.; Huang, Y.; Wang, H.; **Adeleye, A. S.**; Ortiz, C.; Keller, A. A. (2017) ¹H NMR and GC-MS based metabolomics reveal nano-Cu altered cucumber (*Cucumis sativus*) fruit nutritional supply. *Plant Physiology and Biochemistry*, 110:138–146. <https://doi.org/10.1016/j.plaphy.2016.02.010>
18. **Adeleye, A. S.**; Keller, A. A. (2016). Interactions between algal extracellular polymeric substances and commercial TiO₂ nanoparticles in aqueous media. *Environmental Science & Technology*, 50 (22):12258–12265. <https://doi.org/10.1021/acs.est.6b03684>
19. Duan, L.; Hao, R.; Xu, Z.; He, X.; **Adeleye, A. S.**; Li, Y. (2016). Removal of graphene oxide nanomaterials from aqueous media via coagulation: Effects of water chemistry and natural organic matter. *Chemosphere*, 168:1051–1057. <https://doi.org/10.1016/j.chemosphere.2016.10.104>
20. **Adeleye, A. S.**; Oranu, E. A.; Tao, M.; Keller, A. A. (2016). Release and detection of nanosized copper from a commercial antifouling paint. *Water Research*, 102:374–382. <https://doi.org/10.1016/j.watres.2016.06.056> (This study was adapted by chemistry professors at Pasadena City College in California as a part of their new laboratory curriculum)
21. Zhao, L.; Ortiz, C.; **Adeleye, A. S.**; Hu, Q.; Zhou, H.; Huang, Y.; Keller, A. A. (2016). Metabolomics to detect response of lettuce (*Lactuca sativa*) to Cu(OH)₂ nano-pesticides: Oxidative stress response and detoxification mechanisms. *Environmental Science & Technology*, 50 (17):9697–9707. <https://doi.org/10.1021/acs.est.6b02763>
22. Zhao, L.; Huang, Y.; Zhou, H.; Hu, Q.; **Adeleye, A. S.**; Wang, H.; Ortiz, C.; Mazer, S. J.; Keller, A. A. (2016). GC-TOF-MS based metabolomics and ICP-MS based metallomics of cucumber (*Cucumis sativus*) fruits reveal alteration of metabolites profile and biological pathway disruption

- induced by nano copper. *Environmental Science: Nano*, 3:1114 – 1123. <https://doi.org/10.1039/C6EN00093B>
23. **Adeleye, A. S.***; Stevenson, L. M.*; Su, Y.*; Nisbet, R. M.; Zhang, Y.; Keller, A. A. (2016). Influence of phytoplankton on fate and effects of modified zero-valent iron nanoparticles. *Environmental Science & Technology*, 50 (11):5597–5605. <https://doi.org/10.1021/acs.est.5b06251>
24. Du, T.; Wang, Y.; Yang, X.; Wang, W.; Guo, H.; Xiong, X.; Gao, R.; Wuli, X.; **Adeleye, A. S.**; Li, Y. (2016). Mechanisms and kinetics study on the trihalomethanes formation with carbon nanoparticle precursors. *Chemosphere*, 154 (0):391–397. <https://doi.org/10.1016/j.chemosphere.2016.04.002>
25. Su, Y.; **Adeleye, A. S.**; Huang, Y.; Zhou, X.; Keller, A. A.; Zhang, Y. (2016). Direct synthesis of novel and reactive sulfide-modified nano iron through nanoparticle seeding for improved cadmium-contaminated water treatment. *Scientific Reports*, 6:24358. <https://doi.org/10.1038/srep24358>
26. **Adeleye, A. S.**; Conway, J. R.; Garner, K.; Huang, Y.; Su, Y.; Keller, A. A. (2016). Engineered nanomaterials for water treatment and remediation: Costs, benefits, and applicability. *Chemical Engineering Journal*, 286:640–662. <https://doi.org/10.1016/j.cej.2015.10.105> (Cover-page article for Issue 286)
27. Torres-Duarte, C.; **Adeleye, A. S.**; Pokhrel, S.; Mädler, L.; Keller, A. A.; Cherr, G. N (2016). Developmental effects of two different copper oxide nanomaterials in sea urchin (*Lytechinus pictus*) embryos. *Nanotoxicology*, 10 (6):671–679. <https://doi.org/10.3109/17435390.2015.1107145>
28. Zhao, L.; Huang, Y.; Hu, J.; Hongjun, Z.; **Adeleye, A. S.**; Keller, A. A. (2016). ¹H NMR and GC-MS based metabolomics reveal defense and detoxification mechanism of cucumber plant under nano-Cu stress. *Environmental Science & Technology*, 50 (4):2000–2010. <https://doi.org/10.1021/acs.est.5b05011>
29. Wang, H.; **Adeleye, A. S.**; Huang, Y.; Li, F; Keller, A. A. (2015). Heteroaggregation of nanoparticles with biocolloids and geocolloids. *Advances in Colloid and Interface Science*, 226 (0), 24–36. <https://doi.org/10.1016/j.cis.2015.07.002>
30. **Adeleye, A. S.**; Conway, J. R.; Perez, T.; Rutten, P.; Keller A. A. (2014). Influence of extracellular polymeric substances on the long-term fate, dissolution and speciation of copper-based nanoparticles. *Environmental Science & Technology*, 48 (21):12561–12568. <https://doi.org/10.1021/es5033426>
31. Su, Y.; **Adeleye, A. S.**; Keller, A. A.; Huang, Y.; Dai, C.; Zhou, X.; Zhang, Y. (2015). Magnetic sulfide-modified nanoscale zerovalent iron (S-nZVI) for dissolved metal ion removal. *Water Research*, 74:47–57. <https://doi.org/10.1016/j.watres.2015.02.004>
32. Conway, J. R.; **Adeleye, A. S.**; Gardea-Torresday, J.; Keller, A. A. (2015). Aggregation, dissolution and transformation of copper nanoparticles in natural waters. *Environmental Science & Technology*, 49 (5):2749–2756. <https://doi.org/10.1021/es504918q>

33. Hong, J.; Rico, C.; Zhao, L.; **Adeleye, A. S.**; Keller, A. A.; Peralta-Videa, J.; Gardea-Torresday, J. (2015). Toxic effects of copper-based nanoparticles or compounds to lettuce (*Lactuca sativa*) and alfalfa (*Medicago sativa*). *Environmental Science: Processes & Impacts*, 17 (1):177–185. <https://doi.org/10.1039/C4EM00551A>
34. Aceves Bueno, E.; **Adeleye, A. S.**; Bradley, D.; Brandt, W.; Callery, P.; Feraud, M.; Garner, K.; et al. (2015). Citizen science as an approach for overcoming insufficient monitoring and inadequate stakeholder buy-in in adaptive management: Criteria and evidence. *Ecosystems*, 18(3):493–506. <https://doi.org/10.1007/s10021-015-9842-4>
35. **Adeleye, A. S.**; Keller, A.A. (2014). Long-term colloidal stability and metal leaching of single wall carbon nanotubes: Effect of temperature and extracellular polymeric substances. *Water Research*, 49:236–250. <https://doi.org/10.1016/j.watres.2013.11.032>
36. Priester, J.; Van De Werfhorst, L.; Ge, Y.; **Adeleye, A. S.**; Tomar, S.; Tom, L.; M. Piceno, Y.; Andersen, G.; Holden, P. (2014). Effects of TiO₂ and Ag nanoparticles on polyhydroxybutyrate biosynthesis by activated sludge bacteria. *Environmental Science & Technology*, 48 (24):14712–14720. <https://doi.org/10.1021/es504117x>
37. Su, Y.; **Adeleye, A. S.**; Huang, Y.; Sun, X.; Dai, C.; Zhou, X.; Zhang, Y.; Keller, A. A. (2014). Simultaneous removal of cadmium and nitrate in aqueous media by nanoscale zerovalent iron (nZVI) and Au doped nZVI particles. *Water Research*, 63:102–111. <https://doi.org/10.1016/j.watres.2014.06.008>
38. Su, Y.; **Adeleye, A. S.**; Zhou, X.; Dai, C.; Zhang, W.; Keller, A. A.; Zhang, Y. (2014). Effect of nitrate on the treatment of lead contaminated groundwater nanoscale zerovalent iron. *Journal of Hazardous Materials*, 280:504–513. <https://doi.org/10.1016/j.jhazmat.2014.08.040>
39. **Adeleye, A. S.**; Keller A. A.; Miller, R. J.; Lenihan, H. S. (2013). Persistence of commercial nanoscaled zero-valent iron (nZVI) and by-products. *Journal of Nanoparticle Research*, 15:1418. <https://doi.org/10.1007/s11051-013-1418-7>
40. Bennett, S.; **Adeleye, A. S.**; Ji, Z.; Keller, A. A. (2013). Stability, metal leaching, photoactivity and toxicity in freshwater systems of commercial single wall carbon nanotubes. *Water Research*, 47(12):4074–4085. <https://doi.org/10.1016/j.watres.2012.12.039>

FELLOWSHIPS, AWARDS & HONORS

- | | |
|--|------|
| • National Research Council (NRC) Research Associateship
National Academies of Sciences Engineering and Medicine | 2016 |
| • Best Academic Young Researcher Presentation Award
2016 National Environmental Monitoring Conference (NEMC) | 2016 |
| • Student Merit Award, ENM Specialty Group
Society for Risk Analysis (SRA) | 2015 |

- **Travel Award** 2015
Society for Risk Analysis (SRA)
- **Graduate Student Award** 2015
American Chemical Society (ACS) Division of Environmental Chemistry
- **Dean's Fellowship** 2014
University of California, Santa Barbara
- **Student Travel Award** 2013
Sustainable Nanotechnology Organization (SNO)
- **Student Travel Grant** 2013
American Geophysical Union (AGU)
- **Earth Research Institute Travel Award** 2013
University of California, Santa Barbara
- **Symposium Award** 2012
American Chemical Society (ACS) Division of Environmental Chemistry
- **Michael J. Connell Memorial Fellowship** 2012
Bren School of Environmental Science & Management, UCSB
- **Student Travel Award** 2012
Sustainable Nanotechnology Organization (SNO)
- **Certificate of Merit** 2012
American Chemical Society (ACS) Division of Environmental Chemistry
- **Michael J. Connell Memorial Fellowship** 2010
Bren School of Environmental Science & Management, UCSB
- **Sustainable Energy Development Fellowship** 2009
Global Sustainable Electricity Partnership
- **Best Graduating Student in Department of Microbiology** 2006
Obafemi Awolowo University, Ile-Ife, Nigeria
- **Best Graduating Student in Faculty of Science** 2006
Obafemi Awolowo University, Ile-Ife, Nigeria

INVITED RESEARCH TALKS

- **Adeleye, A. S.** "Biogeochemistry of engineered nanomaterials in natural waters". Presented at Civil and Environmental Engineering Department, University of California at Irvine, February 2, 2018, Irvine, CA, USA

- **Adeleye, A. S.** “Environmental applications and implications of engineered nanomaterials: Influence of biogeochemical interactions”. Presented at Civil and Environmental Engineering Department, University of Pittsburgh, January 19, 2018, Pittsburgh, PA, USA
- **Adeleye, A. S.** “Influence of biogeochemical interactions on the fate and transformations of engineered nanomaterials in the environment”. Presented at Chemistry Department, University of Central Florida, October 9, 2017, Orlando, FL, USA
- **Adeleye, A. S.;** Keller, A. A. “Release and detection of nanosized copper from a commercial antifouling paint”. Invited presentation at the 26th Annual International Conference on Soil, Water, Energy, and Air, March 21–24, 2016, San Diego, CA, USA
- **Adeleye, A. S.;** Stevenson, L. M.; Su, Y.; Nisbet, R. M.; Zhang, Y.; Keller, A. A. “Influence of phytoplankton and their organic matter on fate and effects of iron nanoparticles”. Invited presentation at the Environmental Nanotechnology Gordon Research Seminar, June 20–21, 2015, West Dover, VT, USA

CONFERENCE PRESENTATIONS

- Khan, B.; **Adeleye, A. S.;** Burgess, R. M.; Ho, K. T.; Smolowitz, R.; Russo, S. “Bivalve responses to graphene oxide nanoparticle exposures”. To be presented at the Society of Environmental Toxicology and Chemistry North America 39th Annual Meeting, November 4–9, 2018, Sacramento, CA, USA
- **Adeleye, A. S.;** Minakova, A.; Keller, A. A. “Analysis of the transformation of Cu₂O nanoparticles in natural seawater”. Presented at the 256th American Chemical Society National Meeting, August 19–23, 2018, Boston, MA, USA
- **Adeleye, A. S.;** Burgess, R. M.; Ho, K. T. “Colloidal stability and reduction of graphene oxide in marine waters”. Presented at the 255th American Chemical Society National Meeting, March 18–22, 2018, New Orleans, LA, USA
- Khan, B.; **Adeleye, A. S.;** Russo, S.; Burgess, R. M.; Ho, K. T. “A 72-hour graphene oxide nanoparticle exposure study with eastern oysters”. Presented at the National Shellfisheries Association 110th Annual Meeting, March 18–23, 2018, Seattle, WA, USA
- **Adeleye, A. S.;** Ho, K. T.; Burgess, R. M. “Fate and transformation of graphene oxide in marine systems”. Presented at the 6th Sustainable Nanotechnology Organization (SNO) Conference, November 5–7, 2017, Los Angeles, CA, USA
- Vignardi, C.; **Adeleye, A. S.;** Oranu, E. A.; Miller, R. J.; Keller, A. A.; Lenihan, H. S. “The toxicity of copper nanoparticles varies with aging in different aquatic environments”. Presented at the 6th Sustainable Nanotechnology Organization (SNO) Conference, November 5–7, 2017, Los Angeles, CA, USA
- **Adeleye, A. S.;** Keller, A. A.; Pokhrel, S.; Lutz, M. “Synthesis and environmental implication of copper nanohybrids in natural waters”. Presented at the 2017 National Environmental Monitoring Conference (NEMC), August 7–11, 2017, Washington DC, USA

- Huang, Y.; Zhao, L.; **Adeleye, A. S.**; Anumol, T.; Keller, A. A. “Determination and quantitative of plant metabolites by using triple quadrupole liquid chromatography coupled to mass spectrometry”. Presented at the 253rd American Chemical Society National Meeting, April 2–6, 2017, San Francisco, CA, USA
- **Adeleye, A. S.**; Keller, A. A. “Release and Detection of Nanosized Copper from a Commercial Antifouling Paint”. Presented at the 2016 National Environmental Monitoring Conference (NEMC), August 8–12, 2016, Orange County, CA, USA
 - Won the *Best Academic Young Researcher Presentation Award*
- Keller, A. A.; Su, Y.; **Adeleye, A. S.**; Zhou, X.; Zhang, Y. “Novel magnetic sulfide modified nanoscale zerovalent iron with film-like structure for metal removal”. Presented at the 251st American Chemical Society National Meeting, March 13–17, 2016, San Diego, CA, USA
- **Adeleye, A. S.**; Keller, A. A. “Adsorption of algal extracellular polymeric substances to TiO₂ nanoparticles: Effects on surface properties and fate of nanoparticles”. Presented at the Society for Risk Analysis (SRA) 2015 Annual Meeting, December 6–10, 2015, Arlington, VA, USA
 - Abstract won the SRA *ENM Specialty Group Student Merit Award*
- Keller, A. A.; **Adeleye, A. S.**; Huang, Y.; Garner, K. “Overview of innovative remediation of emerging contaminants”. Presented at American Geophysical Union Fall Meeting, December 14–18, 2015, San Francisco, CA, USA
- **Adeleye, A. S.**; Lin, S.; Nel, A.; Keller, A. A. “Experimental release and aquatic toxicity of copper (nano)particles from marine paints”. Presented at the 4th Sustainable Nanotechnology Organization Conference, November 8–10, 2015, Portland, OR, USA
- **Adeleye, A. S.**; Keller, A. A. “Influence of phytoplankton on fate, transformations, and effects of iron nanoparticles”. Presented at the 250th American Chemical Society National Meeting, August 16–20, 2015, Boston, MA, USA
- Keller, A. A.; Wang, H.; **Adeleye, A. S.**; Huang, Y. “Heteroaggregation of nanoparticles with biocolloids and geocolloids”. Presented at the 250th American Chemical Society National Meeting, August 16–20, 2015, Boston, MA, USA
- **Adeleye, A. S.**; Tao, M.; Keller, A. A. “Long term release of nanoparticulate copper from an antifouling paint”. Presented at the Environmental Nanotechnology Gordon Research Conference, June 21–26, 2015, West Dover, VT, USA
- **Adeleye, A. S.**; Stevenson, L. M.; Su, Y.; Nisbet, R. M.; Zhang, Y.; Keller, A. A. “Effect of freshwater algal growth stage on physicochemical properties, transformations, and toxicity of iron nanoparticles”. Presented at the Society of Environmental Toxicology and Chemistry Europe 25th Annual Meeting, May 3–7, 2015, Barcelona, Spain
- **Adeleye, A. S.**; Keller, A. A. “Effect of extracellular polymeric substances on the fate and transformation of engineered nanomaterials”. Presented at the 249th American Chemical Society National Meeting, March 22–26, 2015, Denver, CO, USA

- **Adeleye, A. S.;** Tao, M.; Keller, A. A. “Release of nanosized copper particles from an antifouling paint”. Presented at the Society of Environmental Toxicology and Chemistry North America 35th Annual Meeting, November 9–13, 2014, Vancouver, Canada
- **Adeleye, A. S.;** Keller, A. A. “Long-term dissolution of copper-based nanoparticles in aqueous media: Effects of extracellular polymeric substances, pH, and ionic strength”. Presented at the 248th American Chemical Society National Meeting, August 10–14, 2014, San Francisco, CA, USA
- **Adeleye, A. S.;** Keller, A. A. “Influence of extracellular polymeric substances on CuO nanoparticle dissolution and colloidal stability”. Presented at the American Geophysical Union Fall Meeting, December 9–13, 2013, San Francisco, CA, USA
- **Adeleye, A. S.;** Keller, A. A. “Extracellular polymeric substances stabilize carbon nanotubes in aqueous phase”. Presented at the 2nd Sustainable Nanotechnology Organization Conference, November 3–5, 2013, Santa Barbara, CA, USA
- **Adeleye, A. S.;** Keller, A. A.; Miller, R. J.; Lenihan, H. S. “Persistence of commercial nanoscale zero-valent iron (nZVI) and its by-products”. Presented at the 244th American Chemical Society National Meeting, August 19–23, 2012, Philadelphia, PA, USA
 - Won a *Symposium Award* for the presentation
- **Adeleye, A. S.;** Keller, A. A. “Long-term colloidal stability and metal leachate of carbon nanotubes in natural waters”. Presented at the 1st Sustainable Nanotechnology Organization Conference, November 4–6, 2012, Arlington, VA, USA
- **Adeleye, A. S.;** Huang, D.; Layton, Z.; Twining, J.; Paladugu, S. “A condensed EH&S reference for nanotechnology startups (CERNS)”. Presented at the International Conference on Environmental Implications of Nanotechnology, May 9–10, 2011, Durham, NC, USA

RESEARCH EXPERIENCE

Graduate Student Researcher 09/2011 – 06/2015
University of California’s Center for Environmental Implications of Nanotechnology, University of California, Santa Barbara

- Researched the influence of freshwater phytoplankton (*Chlamydomonas reinhardtii*) on the stability and transformation of modified iron nanoparticles in aqueous media
- Studied interactions between engineered nanomaterials (carbon nanotubes, titanium dioxide, copper-based nanomaterials) and algal extracellular polymeric substances
- Investigated the release and toxicity of biocides from nano-enabled (copper- and zinc-based) antifouling paints
- Carried out research on persistence of different nanoscale zerovalent iron particles in the environment
- Provided mentorship for undergraduate and master’s student researchers

Research Intern 06/2010 – 09/2010
University of California’s Center for Environmental Implications of Nanotechnology (UCCEIN)

- Synthesized guidance recommendation documents for Environmental Health & Safety (EH&S) of engineered nanomaterials published by academic and government institutions

- Worked with other interns to create a draft of comprehensive matrix of nanomaterial EH&S guidance recommendations for UCCEIN

Wilderness Intern

06/2010 – 08/2010

Bureau of Land Management (BLM), US Department of Interior, Sacramento, CA

- Developed information baseline for the Cache Creek Wilderness
- Monitored the wilderness for elements of the BLM National Wilderness Monitoring Protocol
- Assisted the Ukiah Field Office with filling data gaps in the existing trail network in the Cache Creek Wilderness and general inventory of the Wilderness

Laboratory Assistant

09/2009 – 06/2010

Prof. Patricia Holden's Lab, Bren School, University of California, Santa Barbara

- Reviewed the literature on production of polyhydroxyalkanoates (PHA) by activated sludge microbes
- Planned and staged experiments on determining PHA production by *Azotobacter vinelandii* UWD
- Developed staining procedures, and quantification of PHA

TEACHING & MENTORING EXPERIENCE

Invited Lecturer, University of Rhode Island

- Graduate Seminar in Civil Engineering Spring
2017
 - Presented a seminar titled “Nanotechnology: The Gains and the Pains”

Invited Lecturer, University of California, Santa Barbara

- Fate & Transport of Pollutants in the Environment Spring
2015
 - Taught a lecture on “Equilibrium Distribution of Pollutants in the Environment”

Teaching Assistant, University of California, Santa Barbara

- Fate & Transport of Pollutants in the Environment Spring
2014
 - Lectured when professor was out of town
- Laboratory in Management of Soil and Groundwater Quality Winter
2013
- Fate & Transport of Pollutants in the Environment Spring
2012
- Earth System Science Fall
2012

Tutor, University of California, Santa Barbara

- Fate & Transport of Pollutants in the Environment Fall
2011

Mentoring of Students

University of California, Santa Barbara

09/2011 – 09/2016

- Undergraduate students: Brittany Hall, Daniel Dunham, Sahar El Abbadi, Thomas Perez, Paige Rutten, Ekene Oranu, Edward Haderler, Robert Parker, Sarika Kathuria
- Master's students: Mengya Tao, Cody Wilgus
- PhD students: Violaine Desgens-Martin, Cruz Ortiz
- Internships in Nanosystems Science, Engineering and Technology (INSET) Summer Intern: Tina Herda
- Other volunteers: Anastasiia Minakova

EXTRAMURAL FUNDING

- US Environmental Protection Agency 2016 – 2018
\$160,000 for NRC Postdoctoral Research Associateship Program

PROFESSIONAL ACTIVITIES

Conference/Symposia organization

- Co-chair of “Nanotoxicology” Symposium. Invited to chair the session at the 7th Sustainable Nanotechnology Organization (SNO) Conference, November 8–10, 2018, Washington, DC, USA
- Co-chair of “Environmental Nanometrology” Symposium. Organized at the 256th American Chemical Society National Meeting, August 19–23, 2018, Boston, MA, USA
- Co-chair of “Advances in the Transformations, Implications, and Metrology of Carbonaceous Nanomaterials in the Environment” Symposium. Organized at the 255th American Chemical Society National Meeting, March 18–22, 2018, New Orleans, LA, USA

Scientific reviewing

- *Journals*: ACS Sustainable Chemistry & Engineering; Colloids and Surfaces A: Physicochemical and Engineering Aspects; Data; Environmental Pollution; Environmental Science: Nano; Environmental Science & Pollution Research; Environmental Science & Technology; Environmental Toxicology & Chemistry; Environments; International Journal of Environmental Research and Public Health; Journal of Hazardous Materials; Journal of Nanoparticle Research; NanoImpact; Nanoscale Research Letters; RSC Advances; Science of the Total Environment; Trends in Environmental Analytical Chemistry; Water
- *Organizations*: National Science Foundation (Division of Earth Sciences); The Deutsche Forschungsgemeinschaft, DFG (German Research Foundation; Geosciences)

Affiliations

- American Chemical Society (ACS)
- Association of Environmental Engineering and Science Professors (AEESP)
- Society of Environmental Toxicology and Chemistry (SETAC)
- Sustainable Nanotechnology Organization (SNO)