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Engineering & Scientific Consulting

Dimitrios Athanasiou, Ph.D.

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Professional Profile

Dr. Athanasiou studied physics and environmental engineering attaining extensive knowledge on the fate and transport, bioavailability, passive sampling and analysis of hydrophobic organic contaminants (HOCs) in surface water, porewater and sediments. During his graduate studies, he explored the presence of PAHs, PCBs and pesticides in urban stormwater and their bioavailability and fate in receiving waters and sediments.

Dr. Athanasiou also investigated potential impacts of climate change by studying the release of HOCs from soil at a Superfund site flooded by the storm surge of hurricane Harvey. His expertise extends to the design and execution of environmental sampling plans, data collection and multi-dimensional dataset analysis. Dr. Athanasiou is knowledgeable in the use of various analytical laboratory methods and has experience in implementing QA/QC protocols to produce robust data.

Throughout his graduate studies, Dr. Athanasiou has consulted and conducted environmental research on federal, state and academic projects with goals varying from regulatory compliance to risk assessment. He has collaborated with multidisciplinary teams of scientists and engineers to understand and characterize complex surface water and contaminant transport problems. His work has helped stormwater managers understand the relative contribution of runoff from mixed land uses to the recontamination of sediment adjacent to industrial facilities.

Dr. Athanasiou's laboratory experience includes solid phase micro-extraction (SPME) and polyoxymethylene (POM) passive samplers and extraction of HOCs from water (liquid-liquid extraction) and sediment (pressurized liquid extraction). His analytical expertise covers high performance liquid chromatography (HPLC), gas chromatography with electron capture detector (GC-ECD) and gas chromatography with single (GC-MS) and tandem mass spectrometry (GC-MS/MS).

Academic Credentials & Professional Honors

Ph.D., Civil Engineering, Texas Tech University, 2019

M.S., Civil Engineering, Texas Tech University, 2017

M.S., Environmental Engineering, University of New Haven, 2014

B.S., Physics, University of Patras, Greece, 2012

Licenses and Certifications

40-Hour Hazardous Waste Operation and Emergency Response Certification (HAZWOPER)

Prior Experience

Research Assistant, Texas Tech University, 2014-2019

Environmental Intern, Connecticut Department of Energy and Environmental Protection, 2014

Research Assistant, Stevens Institute of Technology, 2013-2014

Languages

Italian

Greek

Publications

Reible, D.; Rao, B.; Rakowska, M.; Athanasiou, D.; Drygiannaki, I.; Bejar, M.; Chadwick, B.; Colvin, M.; Rosen, M.; Burton, A.; Strecker, E.; Steets, B.; Otto, M.; Pitt, R. (2018) SERDP Project ER-2428 - Final Report: Assessment and Management of Stormwater Impacts on Sediment Recontamination

Kandakji, T.; Udeigwe, T. K.; Athanasiou, D.; Pappas, S. (2015). Chemistry of Arsenic in Semi-Arid Alkaline Soils of the Southern High Plains, USA: Sorption Characteristics and Interactions with Soil Constituents. *Water, Air, & Soil Pollution*, 226(9), 320. <https://doi.org/10.1007/s11270-015-2543>

Iliopoulos, K., Athanasiou, D., Meristoudi, A., Vainos, N., Pispas, S., & Couris, S. (2008). Nonlinear optical properties of Au nanoclusters encapsulated into hybrid block copolymer micelles. *Physica Status Solidi (a)*, 205(11), 2635-2638. <https://doi.org/10.1002/pssa.200780179>

Platform Presentations

Athanasiou D.; Reible, D.; Rao, B.; Drygiannaki, I.; Bejar, M.; Chadwick, B.; Rosen, M.; Colvin, M.; Pitt, R.; Burton, A.; Otto, M.; Steets, B. Urban Runoff Sources and Their Effect on Coastal Sediment Recontamination. Battelle - Tenth (10th) International Conference on the Remediation and Management of Contaminated Sediments, New Orleans, LA, 2019

Athanasiou, D.; Reible, D.; Bejar, M.; Rao, B.; Drygiannaki, I.; Colvin, M.; Hayman, N.; Pitt, R.; Burton, A.; Otto, M.; Steets, B. Using passive sampling to assess PAH bioavailability from stormwater-associated sediment recontamination. SETAC North America 39th Annual Meeting, Sacramento, CA, 2018

Athanasiou, D.; Reible, D.; Rakowska, M.; Rao, B.; Drygiannaki, I. Quantification of PAHs in Bulk and Size Fractionated Water Samples during Storm Event in an Urban Water Shed. 4th Annual International Forum on Water, Athens, Greece, 2016