

CURRICULUM VITAE
Tammy H. Boles, Ph.D.
Associate Professor

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Education

- Ph.D. Environmental Sciences – Chemistry Concentration, Tennessee Technological University, 2009
Dissertation: *Detection and Analysis of Amphetamine-Type Stimulants in Wastewater*
- M.S. Chemistry. The University of South Carolina, 1992
Thesis: *Quantitation of Maillard Reaction Products in Tissue Protein*
- B.S. Chemistry. The University of South Carolina, 1989

Professional Experience

- 2019-present Associate Professor, School of Environmental Studies, Tennessee Tech University, Cookeville, TN
- 2013-2019 Assistant Professor, School of Environmental Studies, Tennessee Tech University, Cookeville, TN
- 2004-2012 Coordinator of Programs, School of Interdisciplinary Studies, Tennessee Tech University, Cookeville, TN
- 1994-2004 Research Assistant II, Center for the Management, Utilization, and Protection of Water Resources, Tennessee Tech University, Cookeville, TN
- 1993-1994 Laboratory Manager, Children's Nutrition Research Center, Baylor College of Medicine, Houston, TX
- 1992-1993 Research Assistant, Stillmeadow & Associates, Sugarland, TX

Teaching Experience

ESS 1020: Connections to Environmental and Sustainability Studies
ESS 1100: Introduction to Environmental Studies
ESS 3710: Chemistry and the Environment
ESS 4001: Society and the Environment: Capstone Experience Part 1
ESS 4002: Society and the Environment: Capstone Experience Part 2
ESS 4092: Special Topics: Pharmaceuticals in the Environment
ESS 4093: Special Topics: Environmental Chemistry Research
ESS 4900: Internship Summer
ESS 6970: Special Topics: Environmental Chemistry
ESS 6970: Special Topics: Plastics as Persistent Pollutants
EVSC 6010: Environmental Chemistry
EVSC 7310: Environmental Forensics
CHEM 4991: Introduction to Research
CHEM 4992: Introduction to Research
CHEM 4993: Introduction to Research
CHEM 6900: Directed Studies
CHEM 6970: Advanced Special Topics

Research Interests

Pharmaceuticals and pesticides in wastewater and surface waters by LC-MS/MS
Detection of microplastics in surface water, wastewater, soil, and sludge
Metals in water, soil, and plants by ICP-MS and ICP-OES

Professional Society Memberships

American Chemical Society, Environmental and Toxicology Divisions
Sigma Xi, Scientific Research Society
International Society of Environmental Forensics
Tennessee Academy of Science
Women in Higher Education in Tennessee
American Association of University Women

Oral Presentations

Boles, T.; Reynolds, S.; Mahmoudi, F. Detection of Opioids in Urban Wastewater over a Two-Year Period Using SPE and LC-MS/MS. In *Spring 2019 American Chemical Society National Meeting and Exposition*; 2019.

Reynolds, S.; Boles, T. Detection and Quantification of Various Opioid Compounds in Urban Wastewater by Utilization of Liquid Chromatography-Tandem Mass Spectrometry. In *251st American Chemical Society National Meeting and Exposition*.

Newberry, L.; Boles, T. Demethylation of Methamphetamine by Ultra Violet Tertiary Treatment at Wastewater Treatment Plants. In *251st American Chemical Society National Meeting and Exposition*; 2016.

Newberry, L.; Boles, T. Demethylation of Methamphetamine by Ultra Violet Tertiary Treatment at Wastewater Treatment Plants. In *251st American Chemical Society National Meeting and Exposition*; 2016.

Poster Presentations

Fulmer, M.; Boles, J.; Tammy Boles. Screening Method Development for the Identification of Nontargeted Designer Drugs by GC-MSn and LC-MS/MS. In *255th American Chemical Society National Meeting and Exposition*; 2018.

Parker, W.; Boles, T. Analysis of Wastewater Samples for Attention Deficit Hyperactivity Disorder (ADHD) Medications by Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS). In *255th American Chemical Society National Meeting and Exposition*; 2018.

Fulmer, M.; Loftis, A.; Donegan, J.; Boles, T. Comparison of Oasis WCX and Oasis HLB Sorbents for Polar Organic Chemical Integrative Samplers and for Solid Phase Extraction of Wastewater for Detection and Quantification of Amphetamine-Type Stimulants. In *253rd American Chemical Society National Meeting and Exposition*; 2017.

Parker, W.; Moffitt, K.; Loftis, A.; Boles, T. Analysis of Wastewater Samples for Opioids Using Collection by Passive and Grab Sampling and Extraction by Reversed-Phase and Mixed-Mode Sorbents. In *253rd American Chemical Society National Meeting and Exposition*; 2017.

Parker, W.; Boles, T. Effects of Time Delay between Sample Collection and Extraction of Wastewater Samples for Amphetamine and Opioid Analysis. In *251st American Chemical Society National Meeting and Exposition*; 2016.

Butner, M.; Craine, C.; Boles, T. Detection of Amphetamine Type Substances in Sewers Using

liquid chromatography tandem mass spectrometry (LC-MS/MS).” *Electrophoresis*, 37 (23-24), 2016, 3101-3108.

