GREGORY FOSTER (Professor)
Department of Chemistry & Biochemistry
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Education

UC Davis	Biological Sciences	BS	1978
Cal State Hayward	Marine Science	MS	1981
UC Davis	Environmental Chemistry	PhD	1985
University of Maryland	Environmental Chemistry	Postdoc	1985-1987

Positions

Professor, Department of Chemistry and Biochemistry, George Mason University, Fairfax, VA, 2001-present
Associate Dean of Research, College of Science, George Mason University, Fairfax, VA, 2010-2014
Chair, Department of Chemistry and Biochemistry, George Mason University, 2001-2009
Associate Professor, Department of Chemistry, George Mason University, 1995-2001
Assistant Professor, Department of Chemistry, George Mason University, 1989-1995
Research Chemist, USGS, National Water Quality Laboratory, Arvada, CO, 1987-1989

Expertise

Aquatic Chemistry; Environmental geochemistry of organic substances; Ecochemistry of micropollutants in aquatic environments

Awards

Teacher of Distinction (2017)

Research Funding

40 Research grants awarded as PI ($4.3M in total funding)
Current Funding:
Ecological Survey of Hunting Creek: Micropollutant in water and sediments. Alex Renew Enterprises, $160,000 total, Co-PI (RC Jones, PI), 2013-present

Selected Publications

Arya, G., S. Tadayon, J. Sadighian, J. Jones, K. de Mutsert, T. Huff and G. Foster (2017) Pharmaceutical chemicals, steroids and xenoestrogens in water, sediments and fish from the tidal freshwater Potomac River (Virginia, USA). *J. Environ. Sci. Health*. A (in press)

Huff, T. and G.D. Foster (2011) Parts-per-trillion LC0MS(Q) analysis of herbicides and transformation products in water. *J. Environ. Sci. Health*. A46, 1-12.

Shala, L. and G.D. Foster (2010) Surface Water Concentrations And Loading Budgets of Pharmaceuticals And Other Domestic Use Chemicals in An Urban Watershed (Washington, DC, USA). *Arch. Environ. Contam. Toxicol.* 58, 551-561.

Foster, G.D. and V. Cui (2008) PAHs and PCBs deposited in surficial sediments along a rural to urban transect in a mid-Atlantic coastal river basin (USA). *J. Environ. Sci. Health A* 43, 1333-1345.

Hwang, H-M. and G. D. Foster (2008) Polychlorinated biphenyls in stormwater runoff entering the tidal Anacostia River, Washington, DC, through small urban catchments and combined sewer outflows. *J. Environ. Sci. Health A* 43, 567-575.

Hwang, H.-M. and G. D. Foster (2006) Characterization of polycyclic aromatic hydrocarbons in urban stormwater runoff flowing into the tidal Anacostia River, Washington, DC, USA. *Environ. Pollut.* 140, 416-426.

Arikan, O. L.J. Sikora, W. Mulbry, S.U. Khan and G.D. Foster (2006) The fate and effect of tetracycline during anaerobic digestion of manure from medicated calves. *Process Biochem.* 41, 1637-1643.

Thomas, P.M and G.D. Foster. (2005) Tracking acidic pharmaceuticals, caffeine and triclosan through the wastewater treatment process. *Environ. Toxicol. Chem.* 24, 25-30.
Singh, S.B., G.D. Foster and S.U. Khan. (2003) Microwave-assisted extraction for the simultaneous determination of thiamethoxam, imidacloprid, and carbendazim residues in fresh and cooked vegetables. *J. Agric. Food Chem.* 52, 105-109.
Miller C.V., G.D. Foster and B.L. Feit-Majedi. (2003) Baseflow and stormflow metal fluxes from two small agricultural catchments in the coastal plain of the Chesapeake Bay basin, United States. *Appl. Geochem*. 18, 483-501.
Crimmins B.S., P. Doelling-Brown, D. Kelso and G.D. Foster. (2002) Bioaccumulation of PCBs in aquatic biota from a tidal freshwater marsh ecosystem. *Arch. Environ. Contam. Toxicol.* 42, 396-404
Foster G.D., E.C. Roberts, Jr., B. Gruessner and D.J. Velinsky (2000) Hydrogeochemistry and transport of hydrophobic organic contaminants in an urban watershed of Chesapeake Bay (USA). *Appl. Geochem*. 15, 901-915.

Research Advising

52 Undergraduate research students, 18 Masters (degrees awarded) and 6 PhD (degrees awarded) mentored at George Mason University as primary research advisor

Teaching

Courses Developed

- Environmental Chemistry of Organic Chemicals (Chem 651) – Graduate Lecture Course for Chemistry and Environmental Science Graduate Majors
- Aquatic Environmental Chemistry (Chem 627) – Undergraduate and Graduate Lectures in Aquatic Chemistry for Chemistry and Environmental Science Undergraduate and Graduate Majors

Principal Courses Instructed at George Mason University

- General Chemistry (Chem 211 & 212), Introductory Undergraduate Course
- Aquatic Environmental Chemistry (Chem 627), Upper Division course in Aquatic Chemistry & Geochemistry
- Environmental Chemistry of Organic Substances (Chem 651), Graduate Course in the Environmental Fate and Transport of Organic Chemicals
- Undergraduate Research (Chem 355,451,452)
- Thesis and Dissertation (Chem 799,998,999)