

Neil Fitzgerald, Ph.D.

Professional experience	2000 – present	Marist College,	Poughkeepsie, NY
	Associate Professor (Department Chair 2007-present)		
	<ul style="list-style-type: none">Teaching courses in Quantitative Analytical Chemistry, Instrumental Methods of Analysis, Environmental Chemistry and General Chemistry. Applied for grants, repaired and installed instrumentation, developed laboratory experiments, participated in committee work, initiated undergraduate research.		
	1999 – 2000	Barnard College, Columbia Uni.	New York, NY
	Visiting Assistant Professor		
	<ul style="list-style-type: none">Taught courses in General Chemistry and Intermediate General Chemistry.		
	1994 – 199	University of Massachusetts	Amherst, MA
	Teaching Assistant/ Supervisor		
	<ul style="list-style-type: none">Taught General Chemistry laboratory classes.		
	June 1992 – Sept 1992	Butterworth Laboratories	Teddington, UK
	Temporary Analytical Chemist		
Education	1994 - 1999	University of Massachusetts	Amherst, MA
	Ph.D. The Use of Microwave Energy to Improve Sample Introduction and Preparation for ICPMS. (GPA=3.6)		
	Development of a high pressure on-line digestion system and the investigation of the use of microwave energy for desolvation of an aerosol followed by membrane drying to increase sample transport efficiency to ICP-MS and AAS (Adviser: Prof. Julian Tyson).		
	1992 - 1993	Loughborough University of Technology	UK
	MS.c. (pass with distinction) Analytical Chemistry and Instrumentation		
	Analysis of novel polymer materials by attenuated total reflectance FTIR.		
	1988 - 1991	University of Kent at Canterbury	UK
	BS.c. Chemistry with Environmental Science		
Publications	"Investigation of UV Photolysis Vapor Generation with In-Atomizer Trapping Graphite Furnace Atomic Absorption Spectrometry for the Determination of Mercury" – Jeremy Madden and Neil Fitzgerald,		

Spectrochim. Acta B (submitted 2/21/08)

“Proposed Reaction Mechanisms for Selenium UV Photolysis Vapor Generation by Computational Methods” – Tait Takatani, Neil Fitzgerald, and John Morrison Galbraith, *Anal. Bioanal. Chem.*, **388**, 859 (2007)

“Mercury Determination by Cold Vapor Atomic Absorption Spectrometry Utilizing UV Photoreduction” – Ryan Bendl, Jeremy Madden, Allison Regan and Neil Fitzgerald, *Talanta*, **68**, 1366 (2006)

“Comparison of Trace Metal Variations in a Buffered and Poorly Buffered Stream in the Shawangunk Mountain Range”-Neil Fitzgerald and Kathleen Weathers, *Northeastern Geology and Environmental Science*, **27**, 113 (2005).

“The Use of a Modified Multimode Sample Introduction System for the Simple and Rapid Determination of Cadmium by Chemical Vapour Generation Atomic Absorption Spectrometry”, Eric Ritschdorff, Neil Fitzgerald, Roger McLaughlin, and Ian Brindle, *Spectrochim. Acta B.*, **60**, 139 (2005).

“Desolvating the Sample Aerosol with Microwave Radiation: Further Theoretical and Experimental Insight into the Significance of Such Approach”- Kevin Douglass, Neil Fitzgerald, Bradley Ingebretsen and Julian F. Tyson, *Spectrochim. Acta Part B.*, **59**, 261 (2004).

“Microwave Theory and Its Application to Spectrochemical Analysis”-Neil Fitzgerald, *Spectroscopy*, **15(6)**, 40 (2000).

“Reduction of Water Loading Effects in Inductively Coupled Mass Spectrometry by a Nafion Membrane Dryer Device”-Neil Fitzgerald, Julian F. Tyson, and David A. Leighty, *J. Anal. At. Spectrom.*, **13(1)**, 13 (1998).

Selected

Presentations

“Determination of Mercury Utilizing Cold Vapor UV Photoreduction with in-Atomizer Trapping” – Jillian Lennartz, Jeremy Madden, Neil Fitzgerald, poster presentation 220, FACSS (2007), Memphis, TN (winner outstanding student poster award).

“Investigations of Photochemical Vapor Generation Atomic Absorption Spectrometry” – Neil Fitzgerald, invited oral presentation 550, FACSS (2006) Lake Buena Vista, FL.

“Investigation of Cold-Vapor Atomic Spectrometry for Mercury by UV Photoreduction” - Lauren M. Jackson, Jeremy T. Madden, Ryan F. Bendl, and Neil Fitzgerald, poster presentation 200-75P, PITTCON (2006), Orlando, FL.

“Investigation of Cold-Vapor Atomic Spectrometry for Mercury by UV Photoreduction”-Ryan Bendl and Neil Fitzgerald, Poster Presentation 35, FACSS (2004), Portland, OR (winner outstanding student poster award).

“Investigation of Vapor Generation Methods for the Determination of Cadmium”-Neil Fitzgerald, Ryan Bendl and Eric Ritschdorff, Poster Presentation 25, FACSS (2004), Portland, OR.

“Determination of PAH Compounds in Contaminated Soils: An Investigation of Bioremediation Methods”-Randy Drevland, Alyson Fiorillo, Malanie MacEwan, Andrew Ryder, Elisa Woolridge, and Neil Fitzgerald, Poster Presentation 1700-4000 P, PITTCON (2004), Chicago, IL and ECSC, Manhattan College, NY.

“The Development of a Method Based on Cold-Vapor Atomic Absorption Spectrometry Incorporating a Novel Sample Introduction System for the Determination of Cadmium”-Eric Ritschdorff and Neil Fitzgerald, Poster presentation 1700-4900 P, PITTCON (2004), Chicago, IL and ECSC, Manhattan College, NY.

“Development of a Cold Vapor Generation Atomic Absorption Spectrometry Technique for the Determination of Cadmium in Environmental Samples”-Rebecca Wack, and Neil Fitzgerald, Poster presentation paper 1, FACSS (2002), Providence, RI.

“Investigation of the Physical Mechanisms Occurring in Atomic Spectrometry Liquid Sample Introduction Systems by Numerical Analysis”-Kevin Douglass, Bradley Ingebretsen, and Neil Fitzgerald, Oral presentation paper 415, FACSS (2001), Detroit, MI.

“Reduction of Solvent-Loading Effects in ICPMS Utilizing a Nafion Membrane”- Neil Fitzgerald, Julian F. Tyson, David A. Leighty, Oral Presentation paper 1306, PITTCON (1998), New Orleans, LA.

“Reduction of Water Loading Effects in ICP-MS”- Neil Fitzgerald, Julian F. Tyson and David A. Leighty, Oral Presentation paper 717, FACSS (1997), Providence, RI.

“Improved Transport Efficiency and Drying of the Aerosol for Plasma Spectrometry”-Neil Fitzgerald, Julian F. Tyson and Lois B. Jassie, Oral Presentation paper 1182, PITTCON (1996), Chicago, IL.

“The Application of Microwave Energy to Sample Preparation and Introduction for Atomic Spectrometry”-Neil Fitzgerald, Julian F. Tyson and Lois B. Jassie, Oral Presentation paper 972, FACSS (1995), Cincinnati, OH

Professional memberships and Awards

Royal Society of Chemistry.
American Chemical Society.
Awarded the Eaton Fellowship from the Institute of Ecosystem Studies (9/01)

References

Available on request.