Kevin Kjell Olsen PhD

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**Education**

Montclair State University, Montclair, NJ, PhD in Environmental Management, 2014.

Montclair State University, Montclair, NJ, MS in Chemistry, 1991.

Plymouth State College of the University System of New Hampshire, BA in Chemistry

**Experience**

*2003 – Present. Montclair State University, Montclair, New Jersey*. Research Instrument Technician. Responsible for repair, maintenance and calibration of chemistry and biochemistry department’s instrumentation. Tutored students on instrument use and assisted in the analytical chemistry, biochemistry, and organic chemistry laboratory sessions. Instrument service experience includes Agilent 1100 LC/MS, Shimadzu 2020 LC/MS, analytical and preparative HPLCs, Applied Photophysics Stop-Flow, Beckman J Series high speed centrifuges, Bruker Avance 300 and Avance 400 NMRs, Kendro CO2 incubators, Thermo Electron GC/MS systems, Agilent GC/MS systems, Thermo Electron LTQ MS/MS, Nicolet FTIR, UV/Vis spectrophotometers, Molecular Devices microplate readers, Lachat Flow Injection Analysis, YSI dissolved oxygen probes and other water quality monitors, and Zymark (Caliper) laboratory robots.

*1991 - 2003. Wyeth Pharmaceuticals, Pearl River, New York.* Held three positions in two of the company's divisions.

*2002 - 2003. Research Division,* Instrument Maintenance Supervisor for Engineering Services Department. Supervised a crew of fourteen instrument mechanics who were responsible for repairing and maintaining over 40,000 instruments in eight research buildings.

*1995 - 2002. Research Division*, Robotocist for the Research Compound Bank. Planned and implemented two robotic compound dissolution and distribution systems for drug discovery research.

*1991 - 1995. ESI Lederle Generics Division,* QC Chemist. Responsible for dissolution testing of solid dosage forms, maintenance of testing equipment and regulatory compliance within the dissolution laboratory.

*1989 - 1991. Cosa Instrument Corporation, Norwood, New Jersey*. Marketing and Customer Service. Assisted customers with titration applications and elemental analyzer service. Performed minor repairs for service department. Wrote operating manuals.

*1986 - 1989. B&P Environmental Resources, Oakland, New Jersey.* Analytical and Field Chemist. Operated an Hewlett Packard GC/MS and Perkin Elmer AA. Performed routine hazardous waste testing including calorimetry, electrochemical analysis, acid digestions and EP Tox analysis.

*1984 - 1986 Field Archaeologist*, Participated in the following excavations: Barclay Bank Project, Louis Berger & Associates, New York, NY, Monksville Reservoir, Sheffield Archaeological Consulting, Ringwood, NJ. Slateford Farm, American University/National Park Service, Delaware Water Gap National Recreation Area, East Stroudsburg, Pa.

**Publications**

*Archaeochemical Soil Analysis, Research Goals and Analytical Techniques*, Master's Degree research published in the *International Journal of Environmental Science*.

"Three Hundred years of Assaying American Iron and Iron Ores", *Bulletin for the History of Chemistry*, Vols. 17 & 18, 1995.

“Rosie the Robot, Laboratory Automation in the Second World War 1941 to 1945,” *Laboratory Automation and Robotics*, Vol. 9 no. 3, 1997.

“Multiple Wavelength Ultraviolet Determinations of Nitrate Concentrations, A Demonstration Project From October 2005 to July 2006,” *Air, Water, and Soil Pollution*, appearing online in October 2007.

“Laboratory Robotics Instruction for Undergraduates at Montclair State University,” *Journal of the Association for Laboratory Automation*, April 2009.

“The Net Men and the Anglers. A Case Study in the Conflicts over Recreational and Commercial Fishing” *New York State History*, Winter 2014.

“The First 110 Years of Laboratory Automation: Technologies, Applications, and the Creative Scientist,” *Journal of Laboratory Automation,* Vol. 17, no. 6, December 2012, 469-480.

“Water Quality And Phosphorous Measurements Associated With A Hydroraking Project, Lake Wapalanne, Sussex County, New Jersey, During The Summer Of 2009, “ *Northeastern Geoscience*, Vol. 31 No. 1, Spring 2013, 19-23.

“What Do You Do With the Garbage? New York City’s Progressive Era Sanitary Reforms and Their Impact on the Waste Management Infrastructure in Jamaica Bay,” *Long Island History Journal*, Volume 24-1, 2015.

“Railroads to Jamaica Bay,” *The Keystone*, Volume 49-1, Spring 2016.

**Publications a co-author**

Duke U. Ophori, Matthew Gorring, Kevin Olsen, Ese Orhua, Jeffrey Hope; “A Preliminary Analysis of Groundwater Chemistry in Shallow Boreholes, Ughelli, Nigeria,” *Journal of Environmental Hydrology,* Vol 15, 2007.

Olsen K., Kruge M.A, Prezant R., Stern E., Yu D., “Characterization of Highly Contaminated Sediment from the Gowanus Canal, Brooklyn, New York,” Meadowlands Environmental Research Symposium, June 2007.

Kruge M.A., Mastalerz M., Yu D., and Olsen K., 2009, “Application of unconventional methods for the characterization of contaminated sediment, Gowanus Canal, Brooklyn, New York, USA.” Society for Environmental Toxicology and Chemistry North America 30th Annual Meeting, New Orleans.

Kruge M.A., Olsen K.K., Slusarczyk J., Gomez E., 2010, “The Vinylguaiacol/Indole or VGI ("Veggie") Ratio: A Novel Molecular Parameter to Evaluate the Relative Contributions of Terrestrial and Aquatic Organic Matter to Sediments.” American Geophysical Union Fall Meeting, December 2010, San Francisco, California.

Kruge, M., Stern, E., Mastalerz, M., Permanyer, A., Olsen, K., “Highly contaminated sediments from the Gowanus Canal Superfund site: Beneficial use as a fuel resource,” American Chemical Society 243rd ACS National Meeting & Exposition, March 2012, San Diego, California.

Huan Feng, Joshua C. Gaster, Jared Lopes, Nicole M. Bujalski, Kirk Barrett, and Kevin Olsen, Radionuclides (7 Be, 210Pb and 137Cs) as Tracers for Soil and Sediment Erosion in New Jersey Stream Watersheds, Chapter 2 in: *Radionuclides: Sources, Properties and Hazards* ISBN: 978-1-61942-748-8 Editor: Javier Guillen Gerada, 2012, Nova Science Publishers, Inc.

Nicholas J. Smith-Sebasto, Kevin Olsen, and Wolde Woubneh, Creating a Manufactured Topsoil from Food-Based Compost and Decontaminated River Sediment, *Bulletin of the New Jersey Academy of Sciences*, 2012, 57(1): 13–21.

Joshua Galster, Anita Trajkovska, BA; Huan Feng, Ph.D.; Yu Qian, Ph.D.; Kevin K Olsen, Ph.D Determining the origin of fine-grained fluvial sediments using radionuclides and their management implications, *Anthropocene* 2014, 5: 52-58.

Alessandra Rossi, Kevin Olsen, Mei Yin Wu, *Lake Hopatcong Sediment Phosphorus Survey*, Project report for the Lake Hopatcong Foundation, Landing, NJ, 2015.

**Other Publications**

"The Periagua: a Traditional Workboat of the New Jersey, New York/ New Jersey Area," *The American Neptune*, Vol. 54, no. 30, 1994.

"The Schooner," "The Sea Bright Skiff," "Sandy Hook Pilots," "The Van Riper Hopper House Museum," and "Wayne Township," articles for the *Encyclopedia of New Jersey*, Rutgers University Press, 2004.

*A Great Conveniency; A Maritime History of the Hackensack River, Passaic River, and Newark Bay,* American History Imprints, Franklin Tn., 2008.

*Rails to Sterling Forest*, Garbely Publishing, May 2020.

**Teaching Experience**

Special Topics in Chemistry, High Pressure Liquid Chromatography. Graduate class at Montclair State University, Summer pre-session 2005.

Chemistry 100, General Chemistry for non-majors at Montclair State University, Spring 2006.

Chemistry 120, Undergraduate General Chemistry at Montclair State University, Fall 2007.

Chemistry 232 and 233, Organic Chemistry, Taught units on gas chromatography, High Pressure Liquid Chromatography, Nuclear Magnetic Resonance, Infrared Spectroscopy, and Gas Chromatography / Mass Spectroscopy as part of the laboratory program, 2003 to present.

Chemistry 233, Organic Chemistry Laboratory, Spring 2011.

Chemistry 311, Instrumental Analysis, taught units listed above as well as units on UV/Visible spectroscopy and laboratory robotics, 2003 to present.

Clearwater Foundation, Volunteer educator aboard the *Mystic Whaler*, Spring 2013 and 2016.

Advanced Instrumental Methods for Environmental Analysis, Independent study for non-traditional graduate student, summer and fall 2014.

Public Health 502, Determinants of Environmental Health, graduate class about the intersections of environmental pollutants and public health, Spring 2015 -present.

**Professional Affiliations**

Executive Board member of the Mid-Atlantic Chapter Laboratory Research Interest Group.

Roebling Chapter, Society for Industrial Archaeology.

**Grants and Other**

Wyeth Research US Patent Application number 33,313, Improved Pipette Tip. (Denied by US PTO)

Part of a multidisciplinary team that assembled a successful NSF grant for the REU (Research Experience for Undergraduates) program. Biological, chemical, and geological research activities will be carried out at the New Jersey School of Conservation beginning in the summer of 2011.

Investigator on a grant titled *Revisiting the Musconetcong after ten years.* Funding awarded by the Delaware Watershed Research Fund for the period October 2017 to December 2019.

Consulted on quality control issues related to labels that will be used in cryogenic storage. Customer was Electronic Imaging Materials of Keene, New Hampshire, January 2012.

Awarded the College of Science and Mathematics Professional Staff Service Award, May 2013.