John M. Turlington, Chemist, in EPA's National Exposure Research Laboratory

Exposure Methods and Measurements Division
Mailing Address

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Area of Expertise: As a new member of the Air Quality Branch, John currently provides analytical support for research focusing on secondary organic aerosol (SOA) formation. He performs HPLC analysis for the measurement of DNPH derivatized carbonyls produced from chamber generated SOA samples and brings a quality focused emphasis to all his analyses. He is also investigating options for automating the analysis of atmospheric chamber studies to provide more efficient data collection and processing. Previously, John has conducted GCMS analysis of PM organic source markers including alkanes, polyaromatic hydrocarbons (PAHs), and hopanes supporting ambient air field study projects. He has also measured nitro PAHs from diesel PM and the combustion of nano-metallic fuel-borne catalysts (FBCs) in diesel fuel, and has worked to improve analytical methods, including extraction and cleanup techniques, for this analysis.

Select Publications:

Piletic, I.R., Offenberg, J.H., Olson, D.A., Jaoui, M., Krug, J., Lewandowski, M., Turlington, J.M., Kleindienst, T.E., Constraining carbonaceous aerosol sources in a receptor model by including ^{14}C data with redox species, organic tracers, and elemental/organic carbon measurements, Atmospheric Environment, Volume 80, 2013

Turlington, John M., McDow, Stephen R., Solid phase extraction cleanup for non-polar and moderately polar molecular markers for PM2.5 sources, Atmospheric Environment, Volume 44, Issue 17, June 2010

Turlington, John M., Olson, David A., Stockburger, Leonard, McDow, Stephen R., Trueness, precision, and detectability for sampling and analysis of organic species in airborne particulate matter, Analytical Bioanalytical Chemistry, published online June 2010

Olson, D.A., Turlington, J., Duvall, R.M., McDow, S.R., Stevens, C.D., Williams, R., Indoor and outdoor concentrations of organic and inorganic molecular markers: Source apportionment of PM using low-volume samples, Atmospheric Environment, Volume 42, Issue 8, 2008

View more research publications by John Turlington.

Education:

- M.B.A., Meredith College, 2002

- B.S., Chemistry, North Carolina State University, 1980
- Environmental Applications of Gas Chromatography Mass Spectrometry - An Interpretation Course, Indiana University, 1986
- Operation and Maintenance of the ELQ-400-1 Mass Spectrometer, Extrel Corporation, Pittsburgh, PA, 1984
- Separations Development, Waters Associates, Milford, MA, 1984

Professional Experience:

- Chemist, USEPA, ORD, NERL-EMMD, RTP, NC 2006-present
- Research Chemist, Alion Science & Technology, Research Triangle Park, NC 2004-2006
- Project Scientist, ManTech Environmental Technology, Research Triangle Park, NC 1983-1998
- Lab Technician, Union Carbide Corporation, Research Triangle Park, NC 1981-1983
- Chemist, Research Triangle Institute, Research Triangle Park, NC 1980-1981

Honors and Awards:

- Glenda A. Farmer Award for Exemplary Technical Support, June 2010