John Offenberg, Senior Research Chemist, in EPA's National Exposure Research Laboratory

Exposure Methods and Measurements Division
Mailing Address

offenberg.john@epa.gov

Area of Expertise: John's current research efforts are focused on secondary organic aerosol (SOA) formation, SOA composition, and the contribution of SOA to ambient particulate matter concentrations. These studies combine the use of indoor smog chamber experiments and the collection of field samples. Detailed analyses of chamber-generated SOA samples produced from a variety of parent hydrocarbons, including monoterpenes, sesquiterpenes, aromatics, and isoprene, have been used to develop and evaluate methods for estimating SOA contributions in ambient particulate matter collected at several field sampling locations.

Select Publications:

Hayes PL, Carlton AG, Baker KR, Ahmadov R, Washenfelder RA, Alvarez S, Rappenglück B, Gilman JB, Kuster WC, de Gouw JA, Zotter P, Prévôt ASH, Szidat S, Kleindienst TE, Offenberg JH, and Jimenez JL. Modeling the formation and aging of secondary organic aerosols in Los Angeles during CalNex 2010, Atmospheric Chemistry & Physics, 15, 5325, 2015.

Jaoui M, Lewandowski M, Docherty KS, Offenberg JH, Kleindienst TE. Atmospheric Oxidation of 1,3-Butadiene: Characterization of Gas and Aerosol Reaction Products and Implication for PM2.5. Atmospheric Chemistry & Physics, 14, 13681-13704, 2014.

Nallathamby PD, Lewandowski M, Jaoui M, Offenberg JH, Kleindienst TE, Rubitschun C, Surratt JD, Usenko S, and Sheesley RJ. Qualitative and quantitative assessment of unresolved complex mixture in PM2.5 of Bakersfield, CA. Atmospheric Environment, 98, 368, 2014.

Lewandowski M, Jaoui M, Offenberg JH, Krug J, Kleindienst TE. Atmospheric Oxidation of Isoprene and 1,3-Butadiene: Influence of Aerosol Acidity and Relative Humidity on Secondary Organic Aerosol. Atmospheric Chemistry & Physics,15, 3773, 2015.

Baker KR, Carlton AG, Kleindienst TE, Offenberg JH, Beaver MR, Gentner DR, Goldstein AH, Gilman JB, de Gouw JA, Hayes PL, Jimenez JL, Woody M, Pye HOT, Kelly JT, Jaoui M, Lewandowski M, Lin YH, Rubitschun CL, Surratt JD. Gas and aerosol carbon in California: comparison of measurements and model predictions in Pasadena and Bakersfield. Atmospheric Chemistry & Physics, 15, 5243, 2015.

View more research publications by John Offenburg.

Education:

- Ph.D., Atmospheric Chemistry, University of Maryland, 1998. Dissertation Title: “Semivolatile Organic Compounds in Urban and Over-water Atmospheres.”
- B.S. with Honors, Major - Chemistry, Minor - Economics, Guilford College, 1993. Honors Thesis Title: “Synthesis and Identification of a Soluble Conducting Polymer.”

Professional Experience:

- Senior Research Chemist USEPA, ORD, NERL, RTP, NC 2003-present.
- Rutgers, The State University of New Jersey, New Brunswick, NJ 2001-2003.
- Senior Research Chemist (Senior Ingeniør), Product Toxicology and Environmental Impacts Division, The Norwegian State Oil Company (now: Statoil a.s.a.), Statoil Research Centre, Trondheim, Norway 1999-2001.