Ingrid George, Physical Scientist in EPA's National Risk Management Research Laboratory

Air and Energy Management Division
Mailing Address

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Areas of expertise:
Measurement of speciated volatile organic compounds (VOCs), including air toxics and ozone precursors, in emissions from various pollution sources. The emissions measurements work provides critical information to emissions inventories and models to more accurately predict the health and air quality impacts of important emission sources. Her research also aims to develop and evaluate new and improved sampling and analytical methodologies for VOC measurement in emissions and in near source ambient environments including novel next-generation emissions measurement technologies.

Select publications

Gibbs-Flournoy, E., Ian Gilmour, M. Higuchi, Jim Jetter, I. **George**, L. Copeland, R. Harrison, V. Moser, AND J. Dye. Differential exposure and acute health impacts of inhaled solid-fuel emissions from rudimentary and advanced cookstoves in female CD-1 mice. Environmental Research. Academic Press Incorporated, Orlando, FL, 161:35-48, (2018).

Hays, M., W. Preston, BJ George, I. **George**, R. Snow, J. Faircloth, T. Long, R. Baldauf, AND J. McDonald. Temperature and Driving Cycle Significantly Affect Carbonaceous Gas and Particle Matter Emissions from Diesel Trucks. Energy and Fuels. American Chemical Society, Washington, DC, 31(10):11034-11042, (2017).

Gullett, B., J. Aurell, A. Holder, Bill Mitchell, D. Greenwell, M. Hays, R. Conmy, D. Tabor, W. Preston, I. **George**, J. Abrahamson, R. Vander Wal, and E. Holder. Characterization of Emissions and Residues from Simulations of the Deepwater Horizon Surface Oil Burns. Marine Pollution Bulletin. Elsevier Science Ltd, New York, NY, 117(1-2):392-405, (2017).

George, I. J., Hays, M. D., Herrington, J. S., Preston, W., Snow, R., Faircloth, J., George, B. J., Long, T., Baldauf, R. W. Effects of cold temperature and ethanol content on VOC emissions from light-duty gasoline vehicles. Environmental Science and Technology, 49, 13067-13074 (2015).

George, I. J., Black, R. R., Geron, C. D., Aurell, J., Hays, M. D., Preston, W. T., Gullett, B. K. Volatile and semivolatile organic compounds in laboratory peat fire emissions. 132, 163-170 (2015).

George, I. J., Hays, M. D., Snow, R., Faircloth, J., George, B. J., Long, T., Baldauf, R. W. Cold temperature and biodiesel fuel effects on speciated emissions of volatile organic compounds from diesel trucks. Environmental Science and Technology, 48, 14782–14789 (2014).

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Education:

- Ph.D., University of Toronto, Toronto, Canada; Atmospheric Chemistry, 2009.
- B.S., University of California at Davis, Davis, CA; Chemistry, 2004.

Professional Experience:

- Federal Postdoctoral Researcher, ORD-NRMRL-AEMD, Research Triangle Park, NC, 2012-2016.
- Postdoctoral Research Fellow, University of Leeds, Leeds, UK, 2009-2011.
- Graduate Research and Teaching Assistant, University of Toronto, Toronto, Canada, 2004-2009.

Workgroup and Project Leads

- "Multi-component VOC sensor system for fugitive emissions and odor identification", Project Lead, Regional Science Innovation Project, 2018-2019
- "Novel VOC sensor system for fugitive emission detection", Project Lead, Regional Science Innovation Project, 2017-2018

Committees and Affiliations

- Air & Waste Management Association
- American Association for Aerosol Research
- American Geophysical Union
- American Chemical Society
- Royal Society of Chemistry

Awards and Honors

- ORD Honor Award, 2017
- AEMD Peer to Peer Award, 2017

Science Matters: Tracking Emissions Using New Fenceline Monitoring Technology