

Air, Climate, and Energy Research Webinar Series

Implications of Volatile Chemical Products for Ozone and Particulate Matter in Urban Atmospheres



A certificate of
attendance will be
offered for
this webinar

Tuesday, March 16, 2021 from 3:00 to 4:00 pm ET

Registration: [eventbrite.com/e/air-climate-and-energy-research-webinar-series-registration-141354173137](https://www.eventbrite.com/e/air-climate-and-energy-research-webinar-series-registration-141354173137)

Volatile organic compounds (VOCs) from adhesives, cleaning agents, personal care products, paints, pesticides, and other volatile chemical products (VCPs) result in human exposure in the vicinity of product use. Evaporated VOCs also react in the atmosphere to produce secondary pollutants including ozone and secondary organic aerosol, a contributor to fine particles (PM_{2.5}). While VOCs from these sources have been part of the EPA National Emission Inventory for decades, reductions in tailpipe VOC emissions mean that this source is of increasing interest for air quality in urban locations. Southern California is one such location that experiences ozone concentrations persistently in excess of the National Ambient Air Quality Standard and where the EPA Community Multiscale Air Quality model largely underestimates the organic portion of PM_{2.5} in most air quality management applications.

Current and ongoing work at EPA seeks to understand the magnitude of emissions from VCPs as well as the chemical reactions that result in criteria pollutant formation. This webinar will cover how the contribution of VCPs to ozone and fine particle pollution was constrained using models and measurements with a focus on southern California.



Presenter: Havala O.T. Pye, Ph.D.

Havala is a research scientist in the EPA's Office of Research and Development. Her work focuses on computational methods to understand fine particles and other airborne pollutants that can impact human health and climate change. Specifically, she leads work on the representation of fine particles and organic species in the Community Multiscale Air Quality modeling system allowing for improved quantification of air pollution impacts in regulatory analysis. Havala holds a Ph.D. in chemical engineering with a minor in environmental science and engineering from the California Institute of Technology.