



The Critical Role of Synthetic Chemistry in Elucidating Mechanisms, Product Identification, and Quantitation in Atmospheric Gas-Phase and Multiphase Chemistry of Volatile Organic Emissions

Guest Editors:

Prof. Dr. Avram Gold

Department of Environmental Sciences and Engineering, Gillings School of Global Public Health, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599, USA

Prof. Dr. Jason Surratt

Department of Environmental Sciences and Engineering, UNC Gillings School of Global Public Health, NC 27599, USA

Deadline for manuscript submissions:

closed (15 June 2022)

Message from the Guest Editors

Dear Colleagues,

A key factor in understanding SOA formation, composition, and behavior has been the availability of authentic standards serving as intermediates for verification of putative SOA formation pathways, structural verification of products, quantitation of SOA components, and assessment of both the analytical methodology and physicochemical properties of SOAs.

The following, but by no means comprehensive list of topics includes reconciling low-volatility isoprene SOA with high concentrations of semi-volatile marker compounds as determined by widely applied analytical procedures; the extent of oligomeric species in terms of aerosol composition; the importance of hydroperoxides in initial accretion reactions and subsequent generation of ROS and other radical species in particles; the dependence of the quantitation of potentially labile aerosol components on analytical methodology;

We invite contributions on synthetic efforts and the application of newly synthesized compounds to advancing our understanding of atmospheric processes affecting SOA.

Prof. Avram Gold
Prof. Jason Surratt
Guest Editors





Editor-in-Chief

Prof. Dr. Ilias Kavouras

Environmental, Occupational,
and Geospatial Health Sciences,
CUNY School of Public Health,
New York, NY 10027, USA

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

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Atmosphere Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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