



## Formation and Transformation of Organic Aerosol

Guest Editor:

**Dr. Lea Hildebrandt Ruiz**

McKetta Department of Chemical  
Engineering, the University of  
Texas at Austin, Austin, TX, USA

Deadline for manuscript  
submissions:

**closed (15 November 2018)**

### Message from the Guest Editor

Dear Colleagues,

Atmospheric particles adversely affect human health—every year they are estimated to result in millions of premature deaths worldwide. Organic aerosol (OA) globally comprises the majority of the submicron particle mass, yet our understanding of OA formation and transformation is incomplete. Although it is clear that oxidation of gas-phase compounds and processing of particle-phase compounds play important roles in OA formation and transformation, the underlying chemistry and thermodynamics are poorly understood. As a result, modeling efforts often lead to underestimations of ambient OA loadings. This highlights the need for additional experimental data on the formation and transformation of OA, including the relationships between chemical transformation and changes in physicochemical properties of the OA, such as its volatility. Modeling studies with updated OA formation and transformation processes are also needed. Manuscripts related to these aspects are welcome for this Special Issue.

Dr. Lea Hildebrandt Ruiz

*Guest Editor*





an Open Access Journal by MDPI

## 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!

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, Inspec, CAPlus / SciFinder, Astrophysics Data System, and other databases.

**Journal Rank:** CiteScore - Q2 (*Environmental Science (miscellaneous)*)

## Contact Us

---

Atmosphere Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/atmosphere](http://mdpi.com/journal/atmosphere)  
[atmosphere@mdpi.com](mailto:atmosphere@mdpi.com)  
[X@Atmosphere\\_MDPI](https://twitter.com/Atmosphere_MDPI)