



Formation and Ageing of Carbonaceous Aerosol in the Atmosphere

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Message from the Guest Editors

A significant part of ambient aerosol is carbonaceous aerosol, which forms from gas-phase chemical reactions of volatile organic compounds with common atmospheric oxidants. Although significant progress has been made in improving our understanding of the atmospheric chemistry, substantial uncertainties remain. A deep understanding of chemical reactions and processes that generate aerosol components is essential to understand the altered particle properties and their influence on atmospheric processes, climate, and wellbeing of living organisms.

This Special Issue welcomes contributions related to the oxidation of atmospheric components. The topics include, but are not limited to:

- Laboratory and computational studies of chemical reactions that form new or alter existing organic components of aerosol particles;
- Aqueous-phase reactions of radicals with aerosol components;
- Chemical reactions at aerosol surfaces;
- Smog-chamber studies unveiling formation or aging of aerosol particles;
- Chemical analysis of ambient and laboratory-generated aerosol particles for markers of aerosol origins;
- Health implications of radical reactions with organic aerosol components.





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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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