Special Issue

Atmospheric Chemistry and New Particle Formation

Message from the Guest Editor

Molecular level information about the fundamental processes of aerosol formation remains a challenging issue in climate research. This Special Issue focusses on elucidating the underlying processes from quantum chemical calculations, simulations, and experiments. We seek to cover a broad range of applications, from the reaction kinetics of individual emitted atmospheric vapors, towards understanding atmospheric cluster formation leading to new particle formation. Manuscripts related to the reaction kinetics of the compounds emitted from either the biosphere or anthropogenic sources are of interest. Studies that provide fundamental insight into inter- and intramolecular interactions between atmospheric gas phase vapors are of general interest in order to improve the understanding of the hydrogen bond. The Special Issue also covers smog chamber and flow tube simulations and experiments that yield broad insight into secondary aerosol formation. We welcome all submissions that target molecular level aerosol processes related to atmospheric chemistry and new particle formation.

Guest Editor

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Deadline for manuscript submissions

closed (30 November 2019)



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About the Journal

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!

Editor-in-Chief

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