Special Issue

Electrostatics of Atmospheric Aerosols

Message from the Guest Editors

The overarching goal of this Special Issue is to provide the most recent research advances regarding the effect of electrostatic phenomena on the behavior of atmospheric aerosols. Electrical effects are ubiquitous throughout the entire life cycle of atmospheric aerosols, from emission sources to transport and dry or wet removal. It was also recognized that atmospheric aerosol coagulation during their transport and subsequent deposit is influenced by their charges and interactions with atmospheric bipolar ions. To date, the contribution of electrostatic phenomena is rarely considered in models of emission, transfer or the deposition of atmospheric aerosols. The subject covers original experimental field and laboratory studies, as well as numerical simulations or review papers, which focus on the influence of electrostatic charges, electric field and atmospheric ions on the atmospheric aerosol cycle: airborne suspension, transport coagulation and deposit. This subject also extends to extra-terrestrial environments, issues of solar panel performances and non-contact electric cleaning developments.

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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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