

Special Issue

Atmospheric Aerosols: How Are They Emitted, Generated, Transported, Aged, and Deposited?

Message from the Guest Editors

About 150 years ago, John Aitken published the seminal article “On the Number of Dust Particles in the Atmosphere”, marking the birth of atmospheric aerosol science. Despite significant advancements over the past century and a half, the field continues to grapple with foundational assumptions that, although once necessary due to limited theoretical frameworks and experimental tools, may now prove physically untenable. For instance, can Eulerian observations reliably confirm that the decrease in reactants is stoichiometrically matched by the increase in products, in accordance with the law of mass conservation? The answer is decidedly negative. In light of these challenges, this Special Issue invites contributions that critically reassess the fundamental issues in atmospheric aerosol science. We welcome papers that reexamine the origins, processes, and eventual fate of aerosols, as well as those that propose innovative paradigms for future research.

Guest Editors

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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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