Special Issue

Application of Emerging Methods in Aerosol Research

Message from the Guest Editors

In the field of aerosol research, a series of innovative methods have emerged, providing us with unprecedented perspectives and tools to reveal the mysteries of the atmosphere. These methods cover laboratory experiments, field observations, and model simulations, such as technologies in high-resolution mass spectrometry, synchrotron radiation, lidar detection, machine learning, and artificial intelligence. This Special Issue of *Atmosphere* titled "Application of Emerging Methods in Aerosol Research" aims to facilitate the development of innovative methods in aerosol studies and to provide researchers with a comprehensive platform sharing their recent work. Therefore, we encourage researchers to apply emerging methods in various aspects of aerosol science, including aerosol properties, formation mechanisms, toxicities, sources, etc. The topics of this Special Issue include but are not limited to the following:

- Innovative methods of aerosol measurement;
- Development of aerosol-relevant models;
- Probes in tracing aerosol formation mechanisms;
- New technologies in aerosol source apportionment;
- Strategies in future aerosol studies.

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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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