



Atmospheric Ice Nucleating Particles, Cloud and Precipitation

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Message from the Guest Editor

This Special Issue aims to present the current advances in the field of atmospheric ice nucleating particles (INPs), cloud and precipitation observation, and modeling. Atmospheric ice nucleation plays a vital role in ice crystal formation in clouds, changing the microphysical properties of clouds, precipitation, and atmospheric radiative transfer and affecting the climate system and hydrological cycle. Heterogeneous nucleation of atmospheric ice nuclei has become a hot research topic due to its activation characteristics for improving the accuracy of regional and global weather, climate, and Earth system models. However, little is known about how INPs affect clouds and precipitation. Here, we call for contributions related to the properties of ice nucleating particles, clouds, and precipitation. This topic encompasses observations (INPs, cloud, and precipitation), simulations (process, regional and global), as well as weather extremes (droughts, floods, and storm surges), etc.





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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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