Special Issue

Bioaerosols: Composition, Meteorological Impact, and Transport

Message from the Guest Editor

Primary biological airborne particles comprising both living and dead microorganisms are of interest in the scientific community. Due to their small size, bioaerosols have a relatively long atmospheric residence time and they can be transported over long distances. Many studies have highlighted that biological airborne particles may be suspended as individual cells, but they can be also attached to other particles or found as agglomerate of many cells. Therefore, the abundance and speciation of bioaerosols is of interest due to their potential impact on human health, agriculture, biogeochemical cycles, and atmospheric processes. This issue aims to review the existing state of knowledge on the bioaerosol relationships with meteorological parameters, particulate matter chemical components, and sources identifying the potential factors responsible for the bioaerosol community structure and its seasonal variations. Both chamber and real-world studies characterizing bioaerosols are welcome. Studies on bioaerosol instrumentation for its detection and monitoring focusing on specific innovative methods are encouraged, as well as ones related to pathogenic and antibiotic-resistant species.

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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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