Special Issue

Atmospheric Pollutants: Source Apportionment and Its Impact on Public Health

Message from the Guest Editors

Air pollution is one of the major global environmental problems, and caused adverse public health impacts. The World Health Organization has reported that outdoor air pollution leads to more than 4 million premature mortalities every year. Despite the fact that air pollution has significant negative effects on human health, our understanding of source contribution to air pollutants and the resultant health effects remains very limited. Source apportionment is critical for air pollution research and policy formulation. Chemical transport modeling, statistical modeling, adjoint sensitivity modeling, Higher- order Decoupled Direct Method (HDDM), Light Detection and Ranging (LiDAR), satellite retrieval approach, machine learning methods, and insitu measurements are widely used to assess air pollution. Their applications on health assessments should be better explored. The aim of this special issue is to collect the effort of research using the above methods to quantify health effects of air pollution in particular sources' contributions, and to hence construct comprehensive understanding of outdoor air pollution and its human health impacts.

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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