

Special Issue

Characterization and Toxicity of Atmospheric Pollutants

Message from the Guest Editors

Toxic air pollutants (TAPs), also known as air toxics, are a subset of air pollutants that are known to cause cancer as well as various developmental, neurological, respiratory, reproductive, and other serious chronic health effects (USEPA, 2014). Short-term exposure can lead to eye irritation, nausea, or difficulty breathing. Long-term exposures may result in damage to the respiratory, nervous, or reproductive systems, birth and developmental defects, and other serious health problems. While everyone is at risk from exposure to air toxics, many factors determine how seriously any pollutant will affect a person or at-risk population. These include the level, duration, and frequency of exposure, the toxicity of the pollutant, and the overall health of people who are exposed. Understanding the emission source type of a particular air toxic can help the analyst begin to develop a conceptual model of concentration patterns and gradients that might be expected (EPA, 2009). This Special Issue of *Atmosphere* is dedicated to papers describing the latest advances in the characterization and toxicity of atmospheric pollutants.

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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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