



## Toxicity and Health Effects of Fine Particulate Matter

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### Message from the Guest Editor

Air pollution is one of the greatest health challenges of our time. Among air pollutants, atmospheric particulate matter (PM), especially fine PM (also called PM<sub>2.5</sub>) poses the greatest risk to human health. Several million premature deaths are attributed to fine PM exposure annually. PM consists of black carbon, metals, inorganic, organic, and biological components. Due to the chemical complexity and spatiotemporal diversity of fine PM, the PM toxicity and the mechanisms in causing damage to the human body are still poorly understood. Additionally, a growing body of evidence suggests that the associated diseases and health outcomes from exposure to fine PM may extend beyond those of currently recognized.

This Special Issue invites submissions of novel and original research articles that:

- Explore the key components responsible for PM toxicity.
- Identify and quantify the source contributions to PM toxicity.
- Investigate the biological mechanisms of PM in causing damage.
- Determine the oxidative potential of PM and the link to health risks.
- Estimate the health consequences of PM exposure.





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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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