Special Issue

Oxidative Potential of Atmospheric Aerosols

Message from the Guest Editors

Oxidative stress has been proposed as an important mechanism of toxicity of atmospheric aerosols. This is caused by the oxidative potential (OP) of particulate matter (PM) that measures the capacity of inhaled particulate matter (PM) to induce a redox imbalance generated through the consumption of antioxidants and the production of reactive oxygen species (ROS). Current studies suggest that the main sources that drive PM oxidative potential are combustion sources. However, several aspects regarding the specific chemical species, aerosol sources, and atmospheric processes that affect OP are not well established. In this Special Issue, we promote the publication of papers dealing with the topic of characterization of the oxidative potential of atmospheric particles addressing several different perspectives. These include laboratory studies and measurement protocols, a comparison of acellular and in vitro or in vivo approaches, the influence of chemical composition and sources on oxidative potential, indoor and outdoor measurements, source apportionment results, as well as the assessment of health effects related to oxidative stress and population exposure.

Guest Editors

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Deadline for manuscript submissions

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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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