Special Issue

Atmospheric Chemistry in Urban Environments: Insights into Organic Compounds, Aerosols, and Haze Formation Mechanisms

Message from the Guest Editor

Globally, air pollution is responsible for millions of premature deaths, many of which occur in highly polluted urban areas, for which the study of urban atmospheric chemistry poses particular challenges, especially for the atmospherically formed secondary organic aerosols that have been shown to be particularly harmful to human health. However, the characteristics, sources, and formation pathways of these secondary aerosols remain largely unknown, thus hindering effective pollution mitigation. Therefore, improving the understanding of organic aerosols using new observational and modeling techniques is essential for developing strategies to improve urban and regional air quality. This Special Issue seeks papers that can deepen our understanding of the chemistry and dynamics of organic aerosols in the urban atmosphere through field observations, laboratory studies, and regional/global modeling. New techniques to identify organic compounds and parameterize their formation mechanisms in regional and global models are particularly welcome.

Guest Editor

Dr. Zirui Liu
Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing 100029, China

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Atmosphere
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
atmosphere@mdpi.com

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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!

Editor-in-Chief

Dr. Daniele Contini
Institute of Atmospheric Sciences and Climate (ISAC), National Research Council (CNR), Str. Prv. Lecce-Monteroni km 1.2, 73100 Lecce, Italy

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