Special Issue

The Complex Scenarios Causing CO_2 Increase in the Atmosphere

Message from the Guest Editors

Earth outgassing, ecosystems' respiration, and human-related CO2 emissions occur at the solid-earth-to-gaseous-envelope boundary. Geological CO2 emissions occur from volcanic and tectonic zones. Industries, farmlands and mobility by car deliver various gases, aerosols and solid particulates into the atmosphere. Recent studies have attempted to improve the estimations of CO2 delivered by geological sources, but several areas are still underestimated, even if data are available from various surveillance programs. The model-based evaluation of CO2 released in both urban and natural zones is not yet satisfactory for quantifying the effects on global climate change. This Special Issue of *Atmosphere* focuses on the CO2 emissions in various ecosystems. We invite researchers to submit original research manuscripts on this topic, including case studies in cities, natural zones, forests, and seismic and volcanic zones. We welcome papers focusing on techniques, methods, applications, and models for fostering knowledge on both the sources and fate of atmospheric CO2. The possible effects of CO2 outgassing and consequent risk assessment are also welcome.

Guest Editors

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Deadline for manuscript submissions

closed (31 March 2022)

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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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