

Special Issue

Nitrous Oxide Emission in the Atmosphere

Message from the Guest Editor

Nitrous oxide (N₂O) is one of the dominant anthropogenic greenhouse gases, with a global warming potential nearly 300 times higher than that of CO₂. N₂O is long-lived, with an estimated lifetime of around 116 ± 9 years, and it is emitted from highly variable, disperse sources, which complicates the efforts to quantify the emission processes and develop effective mitigation strategies. This Special Issue aims to bring together different perspectives on N₂O emissions at varying spatial and temporal scales. We, therefore, invite submissions on wide-ranging topics, such as microbial ecology and microscale N₂O emission processes, biogeochemical process modelling, innovative field measurements and isotopic techniques, long-term measurement series, inversion modelling, and the effects of climate change on N₂O emissions in the future. Taken together, the papers in this Special Issue will encourage an interdisciplinary view of N₂O in the atmosphere, to gain a snapshot of the current state of the art and facilitate future developments.

Guest Editor

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Deadline for manuscript submissions

closed (31 August 2019)



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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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