Special Issue

Atmosphere–Peatland Interactions

Message from the Guest Editor

Natural peatlands act as specific functioning ecosystems that can store huge amounts of atmospheric carbon (C). In the context of global changes, the balance between C input and C release is expected to change and may alter the C sink of peatlands. We aim to qualify and quantify the biogeochemical cycles and processes involved in peatland C exchanges in relation with the biodiversity modification. This includes laboratory studies, field investigations with long-term monitoring and models at different scales of the ecosystems and pedoclimatic conditions, as well as new technics and instrumentation to improve this field of investigation. Papers that highlight the impacts of global changes on peatland biogeochemistry and C exchanges are welcome, as well as findings on GHG, VOCs and fine particles input to the atmosphere and the consequences it has on air quality and future climate predictions. Geo-engineering processes and remediation policies on damaged peatlands and their impact on biodiversity and C balance during restoration are also topics of great significance. Geo-engineering processes could include impacts of constructed peatlands/wetlands on air quality.

Guest Editor

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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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