Special Issue

Combustion & Gasification Processes and Air Pollutants Emissions

Message from the Guest Editor

The need to improve the efficiency of power generation processes is urgent. Those efforts also include proposing new processes. Advances in the combustion of fuels as well as the gasification of solid ones are important aspects of such investigations. Studies related to biomass and residues as fuels are particularly welcome. However, improvements and mitigations on the use of fossil fuels on the effects on the environment might be of interest. Theoretical as well as experimental work on predicting or measuring the rate of greenhouse and polluting gas, liquid, or solid emissions are critical to allow evaluations and decisions that consider not just the efficiencies regarding power generation but also the effects on the environment. The characterization of those emissions, as their composition, concentration, and other physical and chemical properties would be valuable to assess their polluting effects. Methods or equipment that might decrease such emissions to the environment would also be extremely helpful to appraise the economics of proposed power generation processes.

This issue would also include mathematical modeling or applications of existing software in the field.

Guest Editor

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closed (28 August 2023)

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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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