



Thermodynamic Evaluation and Optimization of Combustion Processes

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Message from the Guest Editors

Combustion is an important way for humans to obtain energy. However, the combustion process of some fuels, especially fossil fuels, produces a large amount of greenhouse gases and pollutants. To reduce the environmental impact of combustion, it is important to develop efficient combustion methods and systems by using the thermodynamics second-law analysis. The analysis method includes the evaluation of thermodynamic irreversibility and the efficiency of various flames, as well as the thermodynamic optimization of combustion processes by adjusting the combustion mode, flame structure, and burner structure. Some novel and improved combustion systems have been developed based on the thermodynamics second-law. From this perspective, we are committed to facilitating communication regarding high-quality studies in this field.

Topics include, but are not limited to:

- The thermodynamic evaluation of various combustion processes.
- Novel and improved combustion methods and systems.
- The development of algorithms and theories.
- New ideas for optimization methods.





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Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

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