Special Issue

Modelling of Thermochemical Conversion of Solid Fuels: Combustion, Smoldering, Gasification and Beyond

Message from the Guest Editors

The thermochemical conversion of solid fuels—combustion, smoldering, and gasification—is vital in energy and environmental science. With growing demand for sustainable energy, these technologies are crucial. Solid fuels, like biomass, coal, and waste-derived fuels, can be converted into valuable energy carriers and chemicals, reducing greenhouse gas emissions and enhancing energy security. Model research on these processes can guide reactor design and promote efficient, clean energy conversion.

This Special Issue highlights the latest advancements in the thermochemical conversion of solid fuels, focusing on combustion, smoldering, gasification, and emerging technologies. It provides a comprehensive overview of the current state of the art and potential for further development. By featuring cutting-edge research and model construction, this Special Issue aims to enhance understanding of sustainable energy solutions and their environmental impact.

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About the Journal

Message from the Editor-in-Chief

Fire is an international open-access journal about the science, policy, and technology of fires and how they interact with communities and the environment. *Fire* seeks to provide a forum to help the fire science community convey how we can live with fire in a changing world. *Fire* seeks submissions from interdisciplinary studies that take a pyrogeography perspective of fires occurring in natural, cultural, and industrial landscapes and how they interact with communities in the science-policy interface. *Fire*'s Editorial Board are widely recognized international leaders. The journal emphasizes quality and innovation and has a rigorous peer-review process. I strongly recommend *Fire* for the rapid publication of your innovative research publications and case studies.

Editor-in-Chief

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