Special Issue

Understanding the Combustion and Extinguishing Mechanisms of Hydrocarbon Fuels

Message from the Guest Editors

The growing demand for energy resources as well as the rising cost of generated energy decide technologies based on alternative fuels are being intensely developed. Understanding the combustion and extinguishing mechanisms of both traditional hydrocarbon fuels and low-grade hydrocarbon mixtures (sludge), as well as fuels based on natural gas hydrates, will increase the economic efficiency of fuel and reduce the release of dangerous gasses during combustion. A fire threatens social development and public safety, so fire protection has become an integral part of both the social sphere and the production process. In the case of fires with liquid fuels, foam products have become the most popular. At the same time, promising technologies include the joint use of traditional and non-traditional agents. The effectiveness of fire extinguishing may be improved by the combined use of emulsions, solutions, suspensions, foams, and non-flammable gas hydrates at different stages of a fire (pyrolysis, initial combustion, intense flame combustion, and smoldering).

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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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