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Advanced Low-Emission Combustion Technologies

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Message from the Guest Editors

Sustainable combustion technologies are key proceesses for decarbonizing the energy and mobility sectors in the framework of energy transition. Alternative energy carriers with carbon-free or carbon-neutral fuels from renewable sources are drawing increasing attention due to their features related to net-zero CO_2 emissions. The combustion behaviors of these new alternative energy carriers are different from conventional fuels, especially in relation to their ignition/oxidation times, flame stability, pollutant emissions, etc. Several drawbacks related to the utilization of alternative fuels can be solved with advanced combustion technologies. Advanced low-emission combustion technologies including MILD combustion, oxy-fuel combustion, sequential combustion for GT applications, NOx and SOx reduction, catalytic combustion and chemical looping for new alternative fuels are promising methods.

This Special Issue aims to report on the latest technological advances in low-emission combustion technologies for alternative energy carriers and serves as a platform for experimental and modeling analyses of advanced combustion technologies for low-carbon emissions.

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Message from the Editor-in-Chief

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