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Advances in Thermodynamic and Combustion Instability Analysis of Gas Turbine Combustor

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Message from the Guest Editors

Dear Colleagues,

Lean premixed gas turbine combustors have been known to be effective in minimizing pollutant exhaust gases such as NOx, and are extensively employed in aviation and industrial energy production systems because they offer relatively high efficiency compared with diffusion burners. However, premixed combustors may cause gas turbine components to experience the flash-back of flame and combustion instability, which are issues that have been studied by various research groups in recent decades.

Several effective approaches have been proposed to overcome these problems. One of these approaches is renewable energy, which can contribute significantly to a reduction in exhaust emissions. Another approach is a technological innovation that ensures energy security without generating emissions; Advanced combustion techniques with enhanced efficiency in gas turbine applications have also been studied by many researchers.

This Special Issue aims to investigate research on combustion instability for the stable operation of gas turbines and various burners, and various methods that may be utilized to achieve carbon neutrality in gas turbine societies.

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Message from the Editor-in-Chief

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