
SAE International Journal of Fuels and Lubricants
Special Issue on
**Fuels and Combustion Control Strategies for Low Temperature
Combustion Engines**

Due to the global impacts of CO₂ and harmful effects of exhaust pollutants of on road vehicles, emission regulations are getting stricter. In order to obtain both low emission levels and low CO₂, advanced combustion technologies providing high thermal efficiency are required. Low Temperature Combustion (LTC) is the most promising technology for Internal Combustion Engines (ICE) to reduce soot and nitrogen oxides (NO_x) simultaneously while maintaining the high thermal efficiency. Almost all LTC strategies such as Homogeneous Charge Compression Ignition (HCCI), Reactivity Controlled Combustion Ignition (RCCI), Premixed Charge Compression Ignition (PCCI), Partially Premixed Combustion (PPC), Gasoline Compression Ignition (GCI) etc. are still under development and their main challenges are low controllability, narrow operation range, comparatively high CO and HC emissions, requirement of pre-heating for intake air etc.

The aim of this special issue is to publish research/review papers addressing the recent developments in LTC strategies, fuel alternatives for LTC modes and combustion control approaches to obtain high thermal efficiency. Topics to be discussed in this special issue include (but are not limited to) the following:

- Homogeneous Charge Compression Ignition (HCCI)
- Reactivity Controlled Combustion Ignition (RCCI)
- Premixed Charge Compression Ignition (PCCI)
- Partially Premixed Combustion (PPC)
- Gasoline Compression Ignition (GCI)
- Clean fuels for LTC strategies
- Fuel-pairs for LTC strategies (Primary reference fuels or alternative fuels)
- Fuel additives
- Combustion control strategies
- Combustion modelling
- Chemical kinetics
- Emissions

For more information, please contact the Guest Editors

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Important Deadlines

Deadline for Manuscript Submissions
November 30, 2021

Please submit your article at <https://www.editorialmanager.com/saeifuelandlube> and include a submission note in Editorial Manager to indicate that it is for this special issue.