

Special Issue on
Advanced Low Temperature Combustion Strategies

CALL FOR PAPERS

Growing fossil fuel consumption along with increase in fuel cost and a focus on the reduction of carbon dioxide (CO₂) emissions in the transportation sector motivate the need for increased efficiency from the internal combustion engine (ICE). In order to optimize both environmental and economic costs, combustion research for the reduction of NO_x and soot emissions while maintaining high thermal efficiency has led to investigations of advanced combustion strategies based on low temperature combustion (LTC) which eliminates the need for aftertreatment systems. The low temperature combustion is characterized by significantly lower combustion temperatures than conventional strategies. There are various LTC strategies, including homogeneous charge compression ignition (HCCI), premixed charge compression ignition (PCCI) (also known as partially premixed combustion (PPC)), reactivity controlled compression ignition (RCCI), and recently developed gasoline compression ignition (GCI) engines.

Both experimental and numerical works on improving the understanding of LTC strategies with special emphasis on applications in reciprocating internal combustion engines are welcomed. Therefore, this issue calls for contributions focusing on advanced combustion strategies based on low temperature combustion and related topics.

Potential topics include but are not limited to the following:

- ▶ Low temperature diesel combustion
- ▶ Homogenous charge compression ignition engines
- ▶ Partially premixed compression ignition engines
- ▶ Reactivity controlled compression ignition engines
- ▶ Gasoline compression ignition engines
- ▶ Alternative fuels application in low temperature combustion
- ▶ Advanced combustion diagnostics for applications related to the theme of the special issue

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jc/altc/>.

Lead Guest Editor

Amin Paykani, Swiss Federal Institute of Technology, Zurich, Switzerland
paykani@lav.mavt.ethz.ch

Guest Editors

Sundar R. Krishnan, Mississippi State University, Starkville, USA
krishnan@me.msstate.edu

Jiaqiang E., Hunan University, Changsha, China
ejiaqiang@hnu.edu.cn

Rakesh K. Maurya, Indian Institute of Technology Ropar, Rupnagar, India
rakesh.maurya@iitrpr.ac.in

Cem Soruşbay, Istanbul Technical University, Istanbul, Turkey
sorusbay@itu.edu.tr

Manuscript Due

Friday, 25 August 2017

First Round of Reviews

Friday, 17 November 2017

Publication Date

Friday, 12 January 2018