

SAE International Journal of Engines
 Volume 9, Issue 4 (December 2016)
 Table of Contents



Model Based Calibration Techniques for Medium Speed Engine Optimization: Investigations on Common Modeling Approaches for Modeling of Selected Steady State Engine Outputs (2016-01-2156).....	1989
Christian Friedrich, Matthias Auer, and Gunnar Stiesch	
The Effects of Cylinder Deactivation on the Thermal Behaviour and Performance of a Three Cylinder Spark Ignition Engine (2016-01-2160).....	1999
Alexander Bech, Paul J. Shayler, and Michael McGhee	
Optical Investigations of Soot Formation Mechanisms and Possible Countermeasures on a Turbocharged Port Fuel Injection SI Engine (2016-01-2163).....	2010
Claudius Schueck, Thomas Koch, Wolfgang Samenfink, Erik Schuenemann, Stephan Tafel, and Oliver Towac	
A Study Isolating the Effect of Bore-to-Stroke Ratio on Gasoline Engine Combustion Chamber Development (2016-01-2177).....	2022
Kevin L. Hoag, Barrett Mangold, Terrence Alger, Zainal Abidin, Christopher Wray, Mark Walls, and Christopher Chadwell	
Experimental and Numerical Investigations on the Mechanisms Leading to the Accumulation of Particulate Matter in Lubricant Oil (2016-01-2182).....	2030
Olivier Laget, Louis-Marie Malbec, Julian Kashdan, Nicolas Dronniou, Romain Boissard, and Patrick Gastaldi	
Parameters Influencing Soot Oxidation Rates in an Optical Diesel Engine (2016-01-2183).....	2044
Yann Gallo, Zheming Li, Mattias Richter, and Oivind Andersson	
Novel Tabulated Combustion Model Approach for Lifted Spray Flames with Large Eddy Simulations (2016-01-2194).....	2056
Muhsin M. Ameen, Prithwish Kundu, and Sibendu Som	
A Modeling Study of Cyclic Dispersion Impact on Fuel Economy for a Small Size Turbocharged SI Engine (2016-01-2230).....	2066
Vincenzo De Bellis, Fabio Bozza, Daniela Siano, and Gerardo Valentino	
Combustion and Autoignition Modelling in a Turbocharged SI Engine (2016-01-2234).....	2079
Ahmed F. Khan, Alexey Burluka, Jens Neumeister, Dave OudeNijeweme, Paul Freeland, and John Mitealf	
Comparison and Sensitivity Analysis of Turbulent Flame Speed Closures in the RANS G-Equation Context for Two Distinct Engines (2016-01-2236).....	2091
Jann Koch, Guoqing Xu, Yuri M. Wright, Konstantinos Boulouchos, and Michele Schiliro	
Modeling Split Injections of ECN "Spray A" Using a Conditional Moment Closure Combustion Model with RANS and LES (2016-01-2237).....	2107
Christopher Kim Blomberg, Lucas Zeugin, Sushant S. Pandurangi, Michele Bolla, Konstantinos Boulouchos, and Yuri M. Wright	
High Pressure Gasoline Direct Injection in Spark Ignition Engines - Efficiency Optimization through Detailed Process Analyses (2016-01-2244).....	2120
Ulrich Spicher, Max Magar, and Jens Hadler	
Investigating the Limits of Charge Motion and Combustion Duration in a High-Tumble Spark-Ignited Direct-Injection Engine (2016-01-2245).....	2129
Roy Ogink and Aristotelis Babajimopoulos	
Exhaust PM Emissions Analysis of Alcohol Fueled Heavy-Duty Engine Utilizing PPC (2016-01-2288).....	2142
Sam Shamun, Mengqin Shen, Bengt Johansson, Martin Tuner, Joakim Pagels, Anders Gudmundsson, and Per Tunestal	

Evaluation of Knock Behavior for Natural Gas - Gasoline Blends in a Light Duty Spark Ignited Engine (2016-01-2293).....	2153
Michael Pamminger, James Sevik, Riccardo Scarcelli, Thomas Wallner, Steven Wooldridge, Brad Boyer, and Carrie M. Hall	
Boosted Premixed-LTGC / HCCI Combustion of EHN-doped Gasoline for Engine Speeds Up to 2400 rpm (2016-01-2295).....	2166
Chunsheng Ji, John Dec, Jeremie Dornotte, and William Cannella	
Study on the Double Injection Strategy of Gasoline Partially Premixed Combustion under a Light-Duty Optical Engine (2016-01-2299).....	2185
Qinglong Tang, Haifeng Liu, Mingkun Li, and Mingfa Yao	
Development of TWC and PGM Free Catalyst Combination as Gasoline Exhaust Aftertreatment (2016-01-2323).....	2194
Hiroki Nakayama, Yasuharu Kanno, Makoto Nagata, and Xiaolai Zheng	
Analysis of a Diesel Passenger Car Behavior On-Road and over Certification Duty Cycles (2016-01-2328).....	2201
Edward Chappell, Richard Burke, Pin Lu, Michael Gee, and Rod Williams	
Extension of Analytical Methods for Detailed Characterization of Advanced Combustion Engine Emissions (2016-01-2330).....	2215
E. Robert Fanick, Svitlana Kroll, and Kristin Favela	
Experimental and Simulative Friction Analysis of a Fired Passenger Car Diesel Engine with Focus on the Cranktrain (2016-01-2348).....	2227
Rudolf Wichtl, Michael Schneider, Peter Grabner, and Helmut Eichlseder	
Investigation of Mechanism for Formation of EGR Deposit by in situ ATR-FTIR Spectrometer and SEM (2016-01-2351).....	2242
Kotaro Tanaka, Kazuki Hiroki, Tomoki Kikuchi, Mitsuru Konno, and Mitsuharu Oguma	
Heavily Downsized Demonstrator Engine Optimised for CNG Operation (2016-01-2363).....	2250
Jonathan Hall, Mike Bassett, Benjamin Hibberd, and Simon Streng	
Influence of Injector Location on Part-Load Performance Characteristics of Natural Gas Direct-Injection in a Spark Ignition Engine (2016-01-2364).....	2262
James Sevik, Michael Pamminger, Thomas Wallner, Riccardo Scarcelli, Brad Boyer, Steven Wooldridge, Carrie Hall, and Scott Miers	
Evaluation of System Configurations for Downsizing a Heavy-Duty Diesel Engine for Non-Road Applications (2016-01-8058).....	2272
Mufaddel Dahodwala, Satyum Joshi, Hari Krishnamoorthy, Erik W. Koehler, and Michael Franke	
Hydraulic Lash Adjuster Compatible Engine Brake (2016-01-8063).....	2286
David Ferreira, Thomas Howell, and Peter Jo	
Comparative Study of Unregulated Emissions on a Heavy Duty CNG Engine using CNG & Hydrogen Blended CNG as Fuels (2016-01-8090).....	2292
Sauhard Singh, Sumit Mishra, Reji Mathai, A K Sehgal, and R Suresh	
Development of a High Turbulence, Low Particle Number, High Injection Pressure Gasoline Direct Injection Combustion System (2016-01-9046).....	2301
Johann Peer, Fabian Backes, Henning Sauerland, Martin Härtl, and Georg Wachtmeister	
Evaluation of Electrostatic Screen Battery for Emissions Control (ESBEC) with Diesel Emissions (2016-01-9047).....	2312
Taewon Han, Huajun Zhen, and Gediminas Mainelis	

Analysis of Cycle-to-Cycle Variations of the Mixing Process in a Direct Injection Spark Ignition Engine Using Scale-Resolving Simulations (2016-01-9048) 2320
 Martin Theile, Egon Hassel, Dominique Thévenin, Bert Buchholz, Karsten Michels, and Martin Hofer

Studies on the Effect of In-Cylinder Charge Stratifications on High Load HCCI Combustion (2016-32-0010) 2337
 Kei Yoshimura, Shunichi Mori, Kenjiro Nakama, and Jin Kusaka

Effect of Streamer Discharge Assist on Combustion in a Supercharged HCCI Engine (2016-32-0013) 2350
 Yuya Higuchi, Hiroto Tanaka, Hyota Hoshino, Munchiro Matsuishi, Akira Iijima, and Hideo Shoji

Investigations and Analysis of Working Processes of Two-Stroke Engines with the Focus on Wall Heat Flux (2016-32-0028) 2356
 Pascal Piccha, Philipp Bruckner, Stephan Schmidt, Roland Kirchberger, Florian Schumann, Stephan Meyer, Tim Gegg, and Stefan Leiber

Measurement and Prediction of Heat Transfer Losses on the XMv3 Rotary Engine (2016-32-0033) 2368
 Tiago J. Costa, Mark Nickerson, Daniele Littera, Jorge Martins, Alexander Shkolnik, Nikolay Shkolnik, and Francisco Brito

Evaporation and Cold Start Behavior of Bio-Fuels in Non-Automotive Applications (2016-32-0034) 2381
 Stephan Jandl, Hans-Juergen Schacht, Stephan Schmidt, Ute Dawin, Armin Kölmel, and Stefan Leiber

Establishment of Fuel Economy Estimation Method Focused on Transmission Efficiency of Rubber Belt Type CVT (2016-32-0036) 2396
 Takamori Shirasuna, Ryoh Hatakeyama, and Yukio Sakai

Guidelines for the Optimization of a Muffler in a Small Two Stroke Engine (2016-32-0050) 2416
 Francesco Testa, Vincenzo Gagliardi, Marco Ferrari, Stefano Fontanesi, and Andrea Bertani

Effects of Port Injection Specifications on Emission Behavior of THC (2016-32-0065) 2427
 Yoshinori Nakao, Yota Sakurai, Atsushi Hisano, Masahito Saitou, Masahide Kazari, Takahito Murase, and Kozo Suzuki

Multiscale, Multiphysics Computational Chemistry Methods Based on Artificial Intelligence Integrated Ultra-Accelerated Quantum Molecular Dynamics for the Application to Automotive Emission Control (2016-32-0067) 2434
 Akira Miyamoto, Kenji Inaba, Yukie Ishizawa, Manami Sato, Rei Komuro, Masashi Sato, Ryo Sato, Patrick Bonnaud, Ryuji Miura, Ai Suzuki, Naoto Miyamoto, Nozomu Hatakeyama, and Masanori Hariyama

Improvement of the Thermal Durability of an Exhaust Gas Purifying Catalyst Using Size-Controlled Pt-Hydroxide Clusters (2016-32-0070) 2442
 Toyofumi Tsuda, Kazuya Miura, Akio Hikasa, Keiji Hosoi, and Fumikazu Kimata

Development of Base Metal Catalyst and Its Compatibility Study for Motorcycle Applications (2016-32-0071) 2451
 Koji Ueno, Hiroyuki Horimura, Akiko Iwasa, Yuji Kurasawa, Pascaline Tran, and Ye Liu

Improved Fuel Metering for Port Fuel Injection by Controlled Valve Operation (2016-32-0080) 2460
 Christian Steinbrecher, Haris Hamedovic, Andreas Rupp, and Thomas Wortmann

Alternative Engine Speed Sensing Using the Electric Signals of the Alternator (2016-32-0088) 2469
 Bastian Reineke, Jonathan Müller, Stefan Grodde, Wolfgang Fischer, and Henning Heikes

The Effect of Cooled Exhaust Gas Recirculation for a Naturally Aspirated Stationary Gas Engine (2016-32-0093) 2477
 Denis Neher, Fino Scholl, Maurice Kettner, Danny Schwarz, Markus Klaisle, and Blanca Giménez Olavarria