

Paolo Sementa

List of Publications by Year in descending order

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97
papers

1,471
citations

516215

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docs citations

97
times ranked

924
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermodynamic and optical characterizations of a high performance GDI engine operating in homogeneous and stratified charge mixture conditions fueled with gasoline and bio-ethanol. Fuel, 2012, 96, 204-219.	3.4	124
2	A comprehensive analysis of the effect of ethanol, methane and methane-hydrogen blend on the combustion process in a PFI (port fuel injection) engine. Energy, 2015, 88, 101-110.	4.5	77
3	Investigating the origin of nuclei particles in GDI engine exhausts. Combustion and Flame, 2012, 159, 1687-1692.	2.8	72
4	Experimental investigation on the combustion process in a spark ignition optically accessible engine fueled with methane/hydrogen blends. International Journal of Hydrogen Energy, 2014, 39, 9809-9823.	3.8	64
5	Effects of natural gas composition on performance and regulated, greenhouse gas and particulate emissions in spark-ignition engines. Energy Conversion and Management, 2017, 143, 338-347.	4.4	53
6	Study about the link between injection strategy and knock onset in an optically accessible multi-cylinder GDI engine. Energy Conversion and Management, 2017, 134, 1-19.	4.4	52
7	Mixture preparation and combustion in a GDI engine under stoichiometric or lean charge: an experimental and numerical study on an optically accessible engine. Applied Energy, 2016, 180, 86-103.	5.1	47
8	Air-fuel mixing and combustion behavior of gasoline-ethanol blends in a GDI wall-guided turbocharged multi-cylinder optical engine. Renewable Energy, 2016, 96, 319-332.	4.3	45
9	Analysis of combustion of methane and hydrogen-methane blends in small DI SI (direct injection spark) Tj ETQq1,1 0.784314 rgBT 4.5 45	4.5	45
10	Effects of lubricant oil on particulate emissions from port-fuel and direct-injection spark-ignition engines. International Journal of Engine Research, 2017, 18, 606-620.	1.4	41
11	Analysis of the combustion process in a lean-burning turbulent jet ignition engine fueled with methane. Energy Conversion and Management, 2020, 223, 113257.	4.4	37
12	Influence of ethanol blended and dual fueled with gasoline on soot formation and particulate matter emissions in a small displacement spark ignition engine. Fuel, 2019, 245, 253-262.	3.4	36
13	Optical characterization of bio-ethanol injection and combustion in a small DISI engine for two wheels vehicles. Fuel, 2013, 106, 651-666.	3.4	35
14	Analysis of energy efficiency of methane and hydrogen-methane blends in a PFI/DI SI research engine. Energy, 2016, 117, 378-387.	4.5	34
15	Particle Size Distributions from a DI High Performance SI Engine Fuelled with Gasoline-Ethanol Blended Fuels. , 0, , .		30
16	Non-Intrusive Investigation in a Small GDI Optical Engine Fuelled with Gasoline and Ethanol. SAE International Journal of Engines, 0, 4, 50-66.	0.4	27
17	Effect of the fuel injection strategy on the combustion process in a PFI boosted spark-ignition engine. Energy, 2010, 35, 1094-1100.	4.5	25
18	Characterization of Ethanol-Gasoline Blends Combustion processes and Particle Emissions in a GDI/PFI Small Engine. , 2014, , .		24

#	ARTICLE	IF	CITATIONS
19	Experimental Investigation of a Methane-Gasoline Dual-Fuel Combustion in a Small Displacement Optical Engine. , 0, , .		23
20	Characterization of Ethanol Blends Combustion Processes and Soot Formation in a GDI Optical Engine. , 2013, , .		23
21	Evaluation of compression ratio and blow-by rates for spark ignition engines based on in-cylinder pressure trace analysis. Energy Conversion and Management, 2018, 162, 98-108.	4.4	23
22	Spectroscopic characterization of energy transfer and thermal conditions of the flame kernel in a spark ignition engine fueled with methane and hydrogen. International Journal of Hydrogen Energy, 2017, 42, 13276-13288.	3.8	22
23	An experimental investigation on combustion and engine performance and emissions of a methane-gasoline dual-fuel optical engine. , 0, , .		20
24	Exploring the potentials of lean-burn hydrogen SI engine compared to methane operation. International Journal of Hydrogen Energy, 2022, 47, 25044-25056.	3.8	20
25	Use of Accelerometers for Spark Advance Control of SI Engines. SAE International Journal of Engines, 0, 2, 971-981.	0.4	18
26	Investigation on sub-23 nm particles and their volatile organic fraction (VOF) in PFI/DI spark ignition engine fueled with gasoline, ethanol and a 30 %v/v ethanol blend. Journal of Aerosol Science, 2021, 153, 105723.	1.8	18
27	Use of Renewable Oxygenated Fuels in Order to Reduce Particle Emissions from a GDI High Performance Engine. , 0, , .		17
28	Full-Cycle CFD Modeling of Air/Fuel Mixing Process in an Optically Accessible GDI Engine. SAE International Journal of Engines, 0, 6, 1610-1625.	0.4	17
29	Independent component analysis of cycle resolved combustion images from a spark ignition optical engine. Combustion and Flame, 2016, 163, 258-269.	2.8	17
30	Split Injection in a GDI Engine Under Knock Conditions: An Experimental and Numerical Investigation. , 0, , .		16
31	An Experimental and Numerical Investigation of GDI Spray Impact over Walls at Different Temperatures. , 0, , .		16
32	Experimental and Numerical Investigation in a Turbocharged GDI Engine Under Knock Condition by Means of Conventional and Non-Conventional Methods. SAE International Journal of Engines, 2015, 8, 437-446.	0.4	14
33	Effect of Injection Phasing on Valves and Chamber Fuel Deposition Burning in a PFI Boosted Spark-Ignition Engine. SAE International Journal of Fuels and Lubricants, 0, 1, 192-200.	0.2	13
34	Effect of fuel injection strategies on the combustion process in a PFI boosted SI engine. International Journal of Automotive Technology, 2009, 10, 545-553.	0.7	12
35	Characterization of CH ₄ and CH ₄ /H ₂ Mixtures Combustion in a Small Displacement Optical Engine. SAE International Journal of Fuels and Lubricants, 2013, 6, 24-33.	0.2	12
36	Knocking diagnostics in the combustion chamber of boosted port fuel injection spark ignition optical engine. International Journal of Vehicle Design, 2009, 49, 70.	0.1	11

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37	Particle Formation and Emissions in an Optical Small Displacement SI Engine Dual Fueled with CNG DI and Gasoline PFI. , 0, , .		11
38	Experimental and Numerical Analysis of a Pre-Chamber Turbulent Jet Ignition Combustion System. , 0, , .		11
39	A comprehensive analysis of the impact of biofuels on the performance and emissions from compression and spark-ignition engines. International Journal of Engine Research, 2015, 16, 680-690.	1.4	10
40	Optimization of a GDI engine operation in the absence of knocking through numerical 1D and 3D modeling. Advances in Engineering Software, 2016, 95, 38-50.	1.8	10
41	Experimental Investigations on the Sources of Particulate Emission within a Natural Gas Spark-Ignition Engine. , 2017, , .		10
42	Design for an Optically Accessible Multicylinder High Performance GDI Engine. , 2011, , .		9
43	Experimental and Numerical Investigation of the Idle Operating Engine Condition for a GDI Engine. , 2011, , .		9
44	Investigation of Ethanol-Gasoline Dual Fuel Combustion on the Performance and Exhaust Emissions of a Small SI Engine. , 0, , .		9
45	Experimental and Numerical Investigation of the Effect of Split Injections on the Performance of a GDI Engine Under Lean Operation. , 2015, , .		9
46	In-Cylinder Soot Formation and Exhaust Particle Emissions in a Small Displacement Spark Ignition Engine Operating with Ethanol Mixed and Dual Fueled with Gasoline. , 0, , .		9
47	Sub-23 nm Particle Emissions from Gasoline Direct Injection Vehicles and Engines: Sampling and Measure. , 0, , .		9
48	Experimental and Numerical Investigation of the Idle Operating Engine Condition for a GDI Engine. , 2012, , .		8
49	Effect of Octane Number Obtained with Different Oxygenated Components on the Engine Performance and Emissions of a Small GDI Engine. , 0, , .		8
50	Effects of Ethanol and Gasoline Blending and Dual Fueling on Engine Performance and Emissions.. , 2015, , .		8
51	Experimental Characterization of an Ethanol DI - Gasoline PFI and Gasoline DI - Gasoline PFI Dual Fuel Small Displacement SI Engine. , 2015, , .		8
52	Experiments on knocking and abnormal combustion through optical diagnostics in a boosted spark ignition port fuel injection engine. International Journal of Automotive Technology, 2011, 12, 93-101.	0.7	7
53	Study of E10 and E85 Effect on Air Fuel Mixing and Combustion Process in Optical Multicylinder GDI Engine and in a Spray Imaging Chamber. , 0, , .		7
54	Inception of Acetic Acid/Water Cluster Growth in Molecular Beams. ChemPhysChem, 2015, 16, 3021-3029.	1.0	7

#	ARTICLE	IF	CITATIONS
55	Experimental Investigation of a Fueled Prechamber Combustion in an Optical Small Displacement SI Methane Engine. , 0, , .		7
56	Effect of ethanol blends, E10, E25 and E85 on sub-23Ånm particle emissions and their volatile fraction at exhaust of a high-performance GDI engine over the WLTC. Fuel, 2022, 327, 125184.	3.4	7
57	Spectroscopic Investigations and High Resolution Visualization of the Combustion Phenomena in a Boosted PFI SI Engine. SAE International Journal of Engines, 0, 2, 1617-1629.	0.4	6
58	Optical Investigations of the Abnormal Combustion in a Boosted Spark-ignition PFI Engine. SAE International Journal of Engines, 0, 2, 632-644.	0.4	6
59	Optical investigations of the early combustion phase in spark ignition boosted engines. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2011, 225, 787-800.	1.1	6
60	Optimization of the compressed natural gas direct injection in a small research spark ignition engine. International Journal of Engine Research, 2017, 18, 118-130.	1.4	6
61	Correlation between Simulated Volume Fraction Burned Using a Quasi-Dimensional Model and Flame Area Measured in an Optically Accessible SI Engine. , 2017, , .		6
62	Experimental Characterization of Methane Direct Injection from an Outward-Opening Poppet-Valve Injector. , 0, , .		6
63	Quasi-Dimensional Simulation of Downsizing and Inverter Application for Efficient Part Load Operation of Spark Ignition Engine Driven Micro-Cogeneration Systems. , 0, , .		6
64	Analysis of flame kinematics and cycle variation in a Port Fuel Injection Spark Ignition Engine. SAE International Journal of Engines, 2009, 2, 443-451.	0.4	5
65	Characterization of Knock Tendency and Onset in a GDI Engine by Means of Conventional Measurements and a Non-Conventional Flame Dynamics Optical Analysis. SAE International Journal of Engines, 0, 10, 2439-2450.	0.4	5
66	Experimental and Numerical Investigation of a Lean SI Engine To Be Operated as Range Extender for Hybrid Powertrains. , 0, , .		5
67	Experimental and Numerical Investigation of a Passive Pre-Chamber Jet Ignition Single-Cylinder Engine. , 0, , .		5
68	Independent Component Analysis of Combustion Images in Optically Accessible Gasoline and Diesel Engines. , 0, , .		4
69	Experimental Analysis of a Gasoline PFI-Methane DI Dual Fuel and an Air Assisted Combustion of a Transparent Small Displacement SI Engine. , 2015, , .		4
70	Turbulent Jet Ignition Effect on Exhaust Emission and Efficiency of a SI Small Engine Fueled with Methane and Gasoline. , 0, , .		4
71	Measurement of Sub-23 nm Particles Emitted from PFI/DI SI Engine Fueled with Oxygenated Fuels: A Comparison between Conventional and Novel Methodologies. Energies, 2022, 15, 2021.	1.6	4
72	Fuel Injection Effect on In-cylinder Formation and Exhaust Emission of Particulate from a 4-Stroke Engine for 2-Wheel Vehicles. , 2010, , .		3

#	ARTICLE	IF	CITATIONS
73	Influence of the Injection Pressure on the Combustion Performance and Emissions of Small GDI Engine Fuelled with Bio-Ethanol. , 0, , .		3
74	Optical Characterization of Methane Combustion in a Four Stroke Engine for Two Wheel Application. , 2012, , .		3
75	Application of the optical flow method for the experimental analysis of turbulent flame propagation in a transparent engine. AIP Conference Proceedings, 2016, , .	0.3	3
76	On the Entrainment Velocity and Characteristic Length Scales Used for Quasi-Dimensional Turbulent Combustion Modeling in Spark Ignition Engines. , 0, , .		3
77	Influence of Combustion Efficiency on the Operation of Spark Ignition Engines Fueled with Methane and Hydrogen Investigated in a Quasi-Dimensional Simulation Framework. , 2018, , .		3
78	Laminar Flame Speed Based Optimization of Efficiency and Emissions for Methane-Hydrogen Fueled SI Micro-Generators. , 0, , .		3
79	CFD Modeling of a Mixed Mode Boosted GDI Engine and Performance Optimization for the Avoidance of Knocking. Advances in Intelligent Systems and Computing, 2015, , 195-215.	0.5	3
80	Effects of Prechamber on Efficiency Improvement and Emissions Reduction of a SI Engine Fuelled with Gasoline. , 0, , .		3
81	Analysis of the Combustion Process of SI Engines Equipped with Non-Conventional Ignition System Architecture. , 0, , .		3
82	Modeling and Performance Optimization of a Direct Injection Spark Ignition Engine for the Avoidance of Knocking. , 2014, , .		2
83	Application of Independent Component Analysis for the Study of Flame Dynamics and Cyclic Variation in Spark Ignition Engines. Combustion Science and Technology, 2016, 188, 637-650.	1.2	2
84	Optical Characterization of the Combustion Process in a 4- Stroke Engine for 2-Wheel Vehicle.. , 0, , .		1
85	High Spatial Resolution Visualization and Spectroscopic Investigation of the Flame Front Propagation in the Combustion Chamber of a Scooter Engine. , 2010, , .		1
86	Optical investigation of the fuel injector influence in a PFI spark ignition engine for two-wheel vehicles. Journal of Mechanical Science and Technology, 2012, 26, 223-233.	0.7	1
87	Spectroscopic techniques for the evaluation of the in-cylinder air fuel ratio in a small optical SI engine fueled with methane and hydrogen/methane blends. , 2014, , .		1
88	Capturing Cyclic Variability in SI Engine with Group Independent Component Analysis. SAE International Journal of Engines, 2015, 8, 2042-2049.	0.4	1
89	NUMERICAL INVESTIGATION OF ENGINE SPEED AND FUEL COMPOSITION EFFECTS ON CONVECTIVE HEAT TRANSFER IN A SPARK IGNITION ENGINE FUELLED WITH METHANE-HYDROGEN BLENDS. , 2017, , .		1
90	Effect of the Engine Head Geometry on the Combustion Process in a PFI Boosted Spark-ignition Engine. SAE International Journal of Engines, 0, 2, 289-297.	0.4	0

#	ARTICLE	IF	CITATIONS
91	Combustion Process Investigation in a Small SI Engine using Optical Diagnostics. , 0, , .		0
92	Investigation of Combustion Process in a Small Optically Accessible Two Stroke SI Engine. , 2013, , .		0
93	Ethanol Addition Influence on Backfire Phenomena during Kickback in a Spark-Ignition Transparent Small Engine. , 0, , .		0
94	Analysis of the GDI Spray Dynamics Through Multidimensional Modeling and Flow Visualization in an Optically Accessible SI Engine. , 2014, , .		0
95	Experimental Analysis of O2 Addition on Engine Performance and Exhaust Emissions from a Small Displacement SI Engine. , 2016, , .		0
96	1D Modeling of the Outwardly Opening Direct Injection for Internal Combustion Engines Operating with Gaseous and Liquid Fuels. , 0, , .		0
97	Knock Onset Detection Methods Evaluation by In-Cylinder Direct Observation. , 0, , .		0