Gerardo Valentino

List of Publications by Year
in descending order

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107 papers	1,626 citations	430874 18 h-index	454955 30 g-index
108 all docs	108 docs citations	108 times ranked	954 citing authors

#	Article	IF	Citations
1	Experimental study on performance and emissions of a high speed diesel engine fuelled with n-butanol diesel blends under premixed low temperature combustion. Fuel, 2012, 92, 295-307.	6.4	184
2	Combustion process investigation in a high speed diesel engine fuelled with n-butanol diesel blend by conventional methods and optical diagnostics. Renewable Energy, 2014, 64, 225-237.	8.9	89
3	Optical diagnostics of the combustion process in a PFI SI boosted engine fueled with butanolâ€“gasoline blend. Energy, 2012, 45, 277-287.	8.8	82
4	Experimental and numerical study on the influence of cooled EGR on knock tendency, performance and emissions of a downsized spark-ignition engine. Energy, 2019, 172, 968-976.	8.8	59
5	Experimental and Numerical Study of the Water Injection to Improve the Fuel Economy of a Small Size Turbocharged SI Engine. SAE International Journal of Engines, 0, 10, 550-561.	0.4	56
6	Experimental investigations of butanol-gasoline blends effects on the combustion process in a SI engine. International Journal of Energy and Environmental Engineering, 2012, 3, 6.	2.5	53
7	Biodiesel/mineral diesel fuel mixtures: Spray evolution and engine performance and emissions characterization. Energy, 2011, 36, 3924-3932.	8.8	51
8	Water Injection to Enhance Performance and Emissions of a Turbocharged Gasoline Engine under High Load Condition. SAE International Journal of Engines, 0, 10, 928-937.	0.4	47
9	In-cylinder spectroscopic measurements of knocking combustion inÂaÂSI engine fuelled with butanolâ€“gasoline blend. Energy, 2013, 62, 150-161.	8.8	45
10	Combustion process investigations in an optically accessible DISI engine fuelled with n-butanol during part load operation. Renewable Energy, 2015, 77, 363-376.	8.9	45
11	CFD Analysis of Combustion and Knock in an Optically Accessible GDI Engine. SAE International Journal of Engines, 0, 9, 641-656.	0.4	37
12	Comparative behavior of gasolineâ€“diesel/butanolâ€“diesel blends and injection strategy management on performance and emissions of a light duty diesel engine. Energy, 2014, 71, 321-331.	8.8	34
13	Water Injection: a Technology to Improve Performance and Emissions of Downsized Turbocharged Spark Ignited Engines. SAE International Journal of Engines, 0, 10, 2319-2329.	0.4	34
14	Development of a semi-empirical convective heat transfer correlation based on thermodynamic and optical measurements in a spark ignition engine. Applied Energy, 2015, 157, 777-788.	10.1	33
15	Effect of injection timing on combustion and soot formation in a direct injection spark ignition engine fueled with butanol. International Journal of Engine Research, 2017, 18, 490-504.	2.3	30
16	Optical investigations in a CI engine fueled with water in diesel emulsion produced through microchannels. Experimental Thermal and Fluid Science, 2018, 95, 96-103.	2.7	30
17	UV-visible Optical Characterization of the Early Combustion Stage in a DISI Engine Fuelled with Butanol-Gasoline Blend. SAE International Journal of Engines, 0, 6, 1953-1969.	0.4	29
18	Optical diagnostics of early flame development in a DISI (direct injection spark ignition) engine fueled with n-butanol and gasoline. Energy, 2016, 108, 50-62.	8.8	29

#	Article	IF	Citations
19	Evaluation of different methods for combined thermodynamic and optical analysis of combustion in spark ignition engines. Energy Conversion and Management, 2014, 87, 914-927.	9.2	28
20	Interpretation of k-Îµ computed turbulence length-scale predictions for engine flows. Proceedings of the Combustion Institute, 1996, 26, 2717-2723.	0.3	27
21	Application of an entrainment turbulent combustion model with validation based on the distribution of chemical species in an optical spark ignition engine. Applied Energy, 2016, 162, 908-923.	10.1	26
22	Analysis of in-cylinder flow processes by LDA. Combustion and Flame, 1994, 99, 387-394.	5.2	25
23	Effect of coolant temperature on airâ€“fuel mixture formation and combustion in an optical direct injection spark ignition engine fueled with gasoline and butanol. Journal of the Energy Institute, 2017, 90, 452-465.	5.3	23
24	Optical characterization of combustion processes in a DISI engine equipped with plasma-assisted ignition system. Applied Thermal Engineering, 2014, 69, 177-187.	6.0	22
25	Optical Diagnostics of Temporal and Spatial Evolution of a Reacting Diesel Fuel Jet. Combustion Science and Technology, 1999, 148, 1-16.	2.3	20
26	Effects of gasolineâ€“diesel and n-butanolâ€“diesel blends on performance and emissions of an automotive direct-injection diesel engine. International Journal of Engine Research, 2012, 13, 199-215.	2.3	19
27	Turbulence Length Scale Measurements by Two-Probe-Volume LDA Technique in a Diesel Engine. , 0, , .		17
28	Experimental Investigation of a Spray from a Multi-jet Common Rail Injection System for Small Engines. , 0, , .		17
29	Optical Investigation of the Effect on the Combustion Process of Butanol-Gasoline Blend in a PFI SI Boosted Engine. , 2011, , .		17
30	Intake Valve Flow Measurements Using PIV. , 1993, , .		15
31	Flame Contour Analysis through UV-Visible Imaging during Regular and Abnormal Combustion in a DISI Engine. , 0, , .		15
32	Split Injection in a DISI Engine Fuelled with Butanol and Gasoline Analyzed through Integrated Methodologies. SAE International Journal of Engines, 0, 8, 474-494.	0.4	15
33	Numerical and Experimental Analysis of Diesel Air Fuel Mixing. , 0, , .		14
34	Analysis of a High Pressure Diesel Spray at High Pressure and Temperature Environment Conditions. , 2005, , .		14
35	Effect of the Fuel-Injection Strategy on Flame-Front Evolution in an Optical Wall-Guided DISI Engine with Gasoline and Butanol Fueling. Journal of Energy Engineering - ASCE, 2016, 142, .	1.9	13
36	INFLUENCE OF PIEZO-DRIVEN SYNTHETIC JET ON WATER SPRAY BEHAVIOR. Atomization and Sprays, 2017, 27, 691-706.	0.8	13

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37	Fluid-Dynamic Analysis of the Intake System for a HDDI Diesel Engine by STAR-CD Code and LDA Technique. , 2003, , .		12
38	The Full Cycle HD Diesel Engine Simulations Using KIVA-4 Code. , 0, , .		12
39	Effects of Premixed Low Temperature Combustion of Fuel Blends with High Resistance to Auto-ignition on Performances and Emissions in a High Speed Diesel Engine. , 0, , .		12
40	Experimental Investigation on the Combustion and Emissions of a Light Duty Diesel Engine Fuelled with Butanol-Diesel Blend. , 2013, , .		11
41	Effect of Water Injection on Fuel Efficiency and Gaseous and PN Emissions in a Downsized Turbocharged SI Engine. Journal of Energy Engineering - ASCE, 2018, 144, .	1.9	11
42	Analysis of In-Cylinder Turbulent Air Motion Dependence on Engine Speed. , 1994, , .		10
43	A Non-Linear Regression Technique to Estimate from Vibrational Engine Data the Instantaneous In-Cylinder Pressure Peak and Related Angular Position. , 2016, , .		10
44	A Study of Physical and Chemical Delay in a High Swirl Diesel System via Multiwavelength Extinction Measurements. , 0, , .		9
45	Optical Investigation of Premixed Low-Temperature Combustion of Lighter Fuel Blends in Compression Ignition Engines. , 0, , .		9
46	Experimental Evaluation of an Advanced Ignition System for GDI Engines. SAE International Journal of Engines, 0, 8, 2351-2367.	0.4	9
47	Effect of Combustion Chamber Shape on Air Flow Field in a D.I. Diesel Engine. , 0, , .		8
48	Improvement of Combustion System of a Small D.I. Diesel Engine for Low Exhaust Emissions. , 0, , .		8
49	Combustion Process Investigation in a DISI Engine Fuelled with n-butanol Through Digital Imaging and Chemiluminescence. , 0, , .		8
50	PIV Investigation of High Swirl Flow on Spray Structure and its Effect on Emissions in a Diesel-Like Environment. , 0, , .		7
51	Optical Diagnostics of the Pollutant Formation in a CI Engine Operating with Diesel Fuel Blends. SAE International Journal of Engines, 0, 4, 2543-2558.	0.4	7
52	An Experimental Analysis on Diesel/n-Butanol Blends Operating in Partial Premixed Combustion in a Light Duty Diesel Engine. , 0, , .		7
53	Impact of Cooled EGR on Performance and Emissions of a Turbocharged Spark-Ignition Engine under Low-Full Load Conditions. , 0, , .		7
54	Analysis of the Intake Flow in a Diesel Engine Head Using Dynamic Steady Flow Conditions. , 2001, , .		6

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55	Prediction and Optimization of the Performances, Noxious Emissions and Radiated Noise of a Light Duty Common-Rail Diesel Engine. , 0, , .		6
56	In-Cylinder Spectroscopic Measurements of Combustion Process in a SI Engine Fuelled with Butanol-Gasoline Blend. , 0, , .		6
57	Optical Properties Investigation of Alternative Fuels Containing Carbon-Based Nanostructures. , 2014, , .		6
58	Optical Investigation of Postinjection Strategy Effect at the Exhaust Line of a Light-Duty Diesel Engine Supplied with Diesel/Butanol and Biodiesel Blends. Journal of Energy Engineering - ASCE, 2014, 140, .	1.9	6
59	Performances and Emissions of a 2-Stroke Diesel Engine Fueled with Biofuel Blends. Energy Procedia, 2015, 81, 918-929.	1.8	6
60	Effect of Cylinder-by-Cylinder Variation on Performance and Gaseous Emissions of a PFI Spark Ignition Engine: Experimental and 1D Numerical Study. Applied Sciences (Switzerland), 2021, 11, 6035.	2.5	6
61	Spray-combustion process characterization in a common rail diesel engine fuelled with butanol-diesel blends by conventional methods and optical diagnostics. AIMS Energy, 2014, 2, 116-132.	1.9	6
62	Interpretation of Air Motion in Reentrant Bowl in-Piston Engine by Estimating Reynolds Stresses. , 0, , .		5
63	Influence of a Swirling Air Flow on an Evaporating Diesel Spray from a Common Rail Injection System under Realistic Engine Conditions. , 0, , .		5
64	An Experimental Investigation of Alcohol/Diesel Fuel Blends on Combustion and Emissions in a Single-Cylinder Compression Ignition Engine. , 2016, , .		5
65	Water Spray Flow Characteristics Under Synthetic Jet Driven By a Piezoelectric Actuator. Journal of Physics: Conference Series, 2017, 778, 012005.	0.4	5
66	Evaluation of Fluid-Mechanic Behavior of Toroidal and Square, Four-Lobe Combustion Chamber by LDA. , 0, , .		4
67	Assessment of k-Îµ Turbulence Model in KIVA-II by In-Cylinder LDV Measurements. , 0, , .		4
68	Experimental Study on the Spray Atomization of a Multi-hole Injector for Spark Ignition Engines Fuelled by Gasoline and n-Butanol. , 2014, , .		4
69	Butanol-Diesel Blend Spray Combustion Investigation by UV-Visible Flame Emission in a Prototype Single Cylinder Compression Ignition Engine. SAE International Journal of Engines, 2015, 8, 2145-2158.	0.4	4
70	Plasma Assisted Ignition Effects on a DISI Engine Fueled with Gasoline and Butanol under Lean Conditions and with EGR. , 0, , .		4
71	Impact of Ethanol-Gasoline Port Injected onÂPerformance and Exhaust Emissions of aÂTurbocharged SI Engine. , 2018, , .		4
72	Experimental Comparative Study on Performance and Emissions of E85 Adopting Different Injection Approaches in a Turbocharged PFI SI Engine. Energies, 2019, 12, 1555.	3.1	4

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73	Experimental and Numerical Investigation of Air Flow Field in an Open Chamber Diesel Engine. , 1988, , .		3
74	In-Cylinder Flow Measurements by LDA and Numerical Simulation by KIVA-II Code. , 0, , .		3
75	LDV Measurements of Integral Length Scales in an IC Engine. , 1996, , .		3
76	Fuel Composition Effects on Air-Fuel Mixing and Self-Ignition in a Divided Chamber Diesel System by Optical Diagnostics. , 0, , .		3
77	Investigation of Mixture Formation Process in a HDDI Diesel Engine by CFD and Imaging Technique. , 0, , .		3
78	Experimental and Numerical Analyses of Performances and Noise Emission of a Common Rail Light Duty D.I. Diesel Engine. , 0, , .		3
79	Experimental and numerical investigation of diesel spray behaviour in high pressure common-rail systems. International Journal of Vehicle Design, 2009, 50, 50.	0.3	3
80	Investigation of the Effect of Boost Pressure and Exhaust Gas Recirculation Rate on Nitrogen Oxide and Particulate Matter Emissions in Diesel Engines. , 2013, , .		3
81	Effect of Different Fuels Properties on Emissions and Performance of a Light Duty Four-Cylinder Diesel Engine Under Premixed Combustion. , 2014, , .		3
82	CHARACTERIZATION OF n-BUTANOL AND GASOLINE SPRAY FROM A MULTIHOLE INJECTOR USING PHASE DOPPLER ANEMOMETRY. Atomization and Sprays, 2015, 25, 1047-1062.	0.8	3
83	Innovative Lift Direct Command to Inner Hydraulic Circuit Injector Comparison for Diesel Engines. , 2006, , .		3
84	The Role Of Mean Motion and Turbulence structure on Gaseous and Particulate Emissions of D. I. Diesel Combustion System. , 0, , .		2
85	In-Cylinder Fluid Motion and Emissions of a Conventional and Re-entrant Diesel Combustion Systems. , 0, , .		2
86	Integral and Micro Time Scales Estimate in a D.I. Diesel Engine. , 0, , .		2
87	Identification of a Common-Rail Diesel Jet Contour and Spray Droplet Velocity by Two Different Laser Techniques. , 0, , .		2
88	Investigation of the intake tumble flow in a prototype GDI engine using a steady-state test rig. , 0, , .		2
89	UV-Visible Imaging and Natural Emission Spectroscopy of Premixed Combustion in High Swirl Multi-Jets Compression Ignition Engine Fuelled with Diesel-Gasoline Blend. , 2012, , .		2
90	Effect of Control Parameters in an Optical DISI Engine with Gasoline-Butanol Fueling. , 0, , .		2

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91	Characterization of Alcohol Sprays from Multi-Hole Injector for DISI Engines through PIV Technique. , 2015, , .		2
92	Optical Analysis of Combustion and Soot Formation in a CI Engine Fuelled with Water in Diesel Emulsion through Microchannels Emulsification. Journal of Physics: Conference Series, 2018, 1110, 012010.	0.4	2
93	Experimental and 1D Numerical Investigations on the Exhaust Emissions of a Small Spark Ignition Engine Considering the Cylinder-by-Cylinder Variability. , 0, , .		2
94	Fluid-Dynamic Investigation and Optical Characterization of Particulate to Reduce Diesel Emissions. Combustion Science and Technology, 1993, 93, 291-304.	2.3	1
95	Droplets Size and Velocity in a GDI Spray by PDA and Laser Light Extinction Techniques. , 0, , .		1
96	Droplet Size and Velocity Distributions of a Transient Hollow-Cone Spray for GDI Engines. Particle and Particle Systems Characterization, 2001, 18, 262-270.	2.3	1
97	Experimental and Numerical Study of Spray Generated by a High Pressure Gasoline Swirl Injector. , 0, , .		1
98	Effects of Low Temperature Premixed Combustion (LTPC) on Emissions of a Modern Diesel Engine for Passenger Cars. , 2010, , .		1
99	UV-Visible Emission Spectroscopy of the Combustion Process in a Common Rail CI Engine Fulled with N-Butanol - Diesel Blends. Applied Mechanics and Materials, 2013, 390, 286-290.	0.2	1
100	Combustion Optimization of a Marine DI Diesel Engine. , 0, , .		1
101	Multi-Wavelength Spectroscopic Investigations of the Post-Injection Strategy Effect on the Fuel Vapor within the Exhaust Line of a Light Duty Diesel Engine Fuelled with B5 and B30. , 2013, , .		1
102	Optical Investigation of Post-injection Strategy Impact on the Fuel Vapor within the Exhaust Line of a Light Duty Diesel Engine Supplied with Biodiesel Blends. , 0, , .		1
103	Spectroscopic Investigation of Post-Injection Strategy Impact on Fuel Vapor within the Exhaust Line of a Light Duty Diesel Engine Supplied with Diesel/Butanol and Gasoline Blends. , 0, , .		1
104	A Modeling Study of Cyclic Dispersion Impact on Fuel Economy for a Small Size Turbocharged SI Engine. SAE International Journal of Engines, 2016, 9, 2066-2078.	0.4	1
105	Chemiluminescence analysis of the effect of butanol-diesel fuel blends on the spray-combustion process in an experimental common rail diesel engine. Thermal Science, 2015, 19, 1943-1957.	1.1	1
106	Particle image velocimetry for mixture formation investigation in a GDI prototype engine. , 2003, 5191, 59.		0
107	Experimental Analysis and Modeling of NOx Emissions in Compression Ignition Engines Fueled with Blends of Diesel and Palm Oil Biodiesel. , 2016, , .		0