

Martin Davy

List of Publications by Year in descending order

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66
papers

660
citations

758635

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h-index

839053

18
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66
all docs

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docs citations

66
times ranked

457
citing authors

#	ARTICLE	IF	CITATIONS
1	Manifold reduction techniques for the comparison of crank angle-resolved particle image velocimetry (PIV) data and Reynolds-averaged Navier-Stokes (RANS) simulations in a spark ignition direct injection (SID) engine. International Journal of Engine Research, 2022, 23, 1275-1294.	1.4	3
2	Artificial neural network (ANN) assisted prediction of transient NO _x emissions from a high-speed direct injection (HSDI) diesel engine. International Journal of Engine Research, 2022, 23, 1201-1212.	1.4	9
3	Development of a laminar burning velocity empirical correlation for combustion of iso-octane/ethanol blends in air. Fuel, 2022, 307, 121880.	3.4	11
4	Pulsating one-dimensional detonation in ammonia-hydrogen-air mixtures. International Journal of Hydrogen Energy, 2022, 47, 21517-21536.	3.8	11
5	Effect of ethanol addition on the laminar burning velocities of gasoline surrogates. Fuel, 2022, 327, 125186.	3.4	4
6	The impact of intake pressure on high exhaust gas recirculation low-temperature compression ignition engine combustion using borescopic imaging. International Journal of Engine Research, 2021, 22, 2347-2361.	1.4	7
7	On the application of artificial neural networks for the prediction of NO _x emissions from a high-speed direct injection diesel engine. International Journal of Engine Research, 2021, 22, 1808-1824.	1.4	23
8	Cyclic NO ₂ :NO _x ratio from a diesel engine undergoing transient load steps. International Journal of Engine Research, 2021, 22, 284-294.	1.4	17
9	Combustion and emissions from cerium oxide nanoparticle dosed diesel fuel in a high speed diesel research engine under low temperature combustion (LTC) conditions. Fuel, 2021, 288, 119636.	3.4	31
10	Investigation of fuel volatility on the heat transfer dynamics on piston surface due to the pulsed spray impingement. International Journal of Heat and Mass Transfer, 2021, 170, 121008.	2.5	5
11	The Influence of Cycle-to-Cycle Hydrocarbon Emissions on Cyclic NO:NO ₂ Ratio From a HSDI Diesel Engine. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	0.5	1
12	The effects of increasing FAME biodiesel content on combustion characteristics and HC emissions in high-EGR low temperature combustion. Fuel, 2021, 302, 121055.	3.4	8
13	Simulation of ECN diesel spray A using conditional source-term estimation. Combustion Theory and Modelling, 2020, 24, 725-760.	1.0	13
14	Improving the Uncertainty of Exhaust Gas Temperature Measurements in Internal Combustion Engines. Journal of Engineering for Gas Turbines and Power, 2020, 142, .	0.5	3
15	Prism Signal Processing of Coriolis meter data for gasoline fuel injection monitoring. Flow Measurement and Instrumentation, 2019, 70, 101645.	1.0	4
16	Cycle-to-Cycle NO and NO _x Emissions From a HSDI Diesel Engine. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	0.5	9
17	Evaluation of exhaust gas recirculation techniques on a high-speed direct injection diesel engine using first law analysis. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2019, 233, 710-726.	1.1	11
18	The effect of a stepped lip piston design on performance and emissions from a high-speed diesel engine. Applied Energy, 2018, 215, 679-689.	5.1	34

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19	Effects of intake-port throttling on combustion behaviour in diesel low-temperature combustion. International Journal of Engine Research, 2018, 19, 827-838.	1.4	3
20	Numerical Studies of Combustion Recession on ECN Diesel Spray A. , 2018, , .		7
21	Comparison of Transient Diesel Spray Break-Up Between Two Computational Fluid Dynamics Codes. , 2018, , .		6
22	Engine-out emissions from a modern high speed diesel engine – The importance of Nozzle Tip Protrusion. Applied Energy, 2018, 226, 340-352.	5.1	22
23	Fast Coriolis mass flow metering for monitoring diesel fuel injection. Flow Measurement and Instrumentation, 2017, 58, 1-5.	1.0	20
24	Time-resolved gas thermometry by laser-induced grating spectroscopy with a high-repetition rate laser system. Experiments in Fluids, 2017, 58, 1.	1.1	15
25	The Prism: Efficient Signal Processing for the Internet of Things. IEEE Industrial Electronics Magazine, 2017, 11, 22-32.	2.3	26
26	An optical method for measuring exhaust gas pressure from an internal combustion engine at high speed. Review of Scientific Instruments, 2017, 88, 125004.	0.6	8
27	The Effect of Non-Ideal Vapour-Liquid Equilibrium and Non-Ideal Liquid Diffusion on Multi-Component Droplet Evaporation for Gasoline Direct Injection Engines. , 2015, , .		5
28	Iso-stoichiometric fuel blends: characterisation of physicochemical properties for mixtures of gasoline, ethanol, methanol and water. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2015, 229, 111-139.	1.1	26
29	Load transient between conventional diesel operation and low-temperature combustion. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2015, 229, 850-865.	1.1	7
30	Insights into the hydrocarbon and carbon monoxide emissions in moderately and highly dilute Low Temperature Combustion. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2014, 228, 1285-1296.	1.1	7
31	In-situ studies of gas phase composition and anode surface temperature through a model DIR-SOFC steam-methane reformer at 973.15 K. International Journal of Hydrogen Energy, 2013, 38, 13762-13773.	3.8	16
32	The effects of split injections on high exhaust gas recirculation low-temperature diesel engine combustion. International Journal of Engine Research, 2013, 14, 68-79.	1.4	14
33	An optical investigation of a cold-start DISI engine startup strategy. , 2013, , 33-52.		3
34	Fuel spray structure, flame propagation and charge motion at fuel impingement locations within a DISI engine. , 2012, , 199-214.		3
35	Managing the Transition Between Low Temperature Combustion and Conventional Diesel Combustion During a Load Change. , 2012, , .		3
36	Effects of engine operating parameters on diesel low-temperature combustion with split fuel injection. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2012, 226, 1271-1286.	1.1	11

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37	High-temperature vibrational Raman spectroscopy of gaseous species for solid-oxide fuel cell research. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 3403-3414.	3.8	6
38	Newtonian liquid jet impaction on a high-speed moving surface. <i>International Journal of Heat and Fluid Flow</i> , 2011, 32, 1216-1225.	1.1	12
39	Numerical and Experimental Characterization of a Natural Gas Engine With Partially Stratified Charge Spark Ignition. <i>Journal of Engineering for Gas Turbines and Power</i> , 2011, 133, .	0.5	11
40	On the experimental validation of combustion simulations in turbulent non-premixed jets. <i>Combustion Theory and Modelling</i> , 2010, 14, 855-874.	1.0	8
41	Broadband 308 nm vibrational Raman spectroscopy of gaseous species using a potassium hydrogen phthalate liquid filter and polarization fluorescence suppression. <i>Review of Scientific Instruments</i> , 2010, 81, 013108.	0.6	6
42	Effects of Hydrogen Addition on High-Pressure Nonpremixed Natural Gas Combustion. <i>Combustion Science and Technology</i> , 2010, 183, 20-42.	1.2	16
43	VISCOELASTIC AIR-BLAST SPRAYS IN A CROSS-FLOW. PART 1: PENETRATION AND DISPERSION. <i>Atomization and Sprays</i> , 2010, 20, 697-720.	0.3	19
44	VISCOELASTIC AIR-BLAST SPRAYS IN A CROSS-FLOW. PART 2: DROPLET VELOCITIES. <i>Atomization and Sprays</i> , 2010, 20, 721-735.	0.3	11
45	Effects of Fuel Composition on High-Pressure Non-Premixed Natural Gas Combustion. <i>Combustion Science and Technology</i> , 2009, 181, 397-416.	1.2	10
46	NEWTONIAN AND NON-NEWTONIAN SPRAY INTERACTION WITH A HIGH-SPEED MOVING SURFACE. <i>Small Group Research</i> , 2009, 19, 19-39.	1.8	6
47	EXPERIMENTS ON AIR-BLAST ATOMIZATION OF VISCOELASTIC LIQUIDS, PART 1: QUIESCENT CONDITIONS. <i>Small Group Research</i> , 2009, 19, 157-190.	1.8	11
48	Autoignition and Emission Characteristics of Gaseous Fuel Direct Injection Compression Ignition Combustion. , 2007, , .		7
49	Pre-ignition characterization of partially-stratified natural gas injection. , 2007, , .		9
50	A Marine Propeller Aerodynamic Test Facility. <i>Strain</i> , 2007, 43, 125-131.	1.4	1
51	Effect of Impinging Airflow on the Near Nozzle Characteristics of a Gasoline Spray from a Pressure-Swirl Atomiser. , 2006, , .		1
52	Numerical Study of the Effects of Droplet Size Distribution on Fuel Transport and Air-Fuel Mixing in a Gasoline Direct-Injection Engine. , 2003, , .		1
53	Effects of Fuel Injection Pressure in an Optically-Accessed DISI Engine with Side-Mounted Fuel Injector. , 2001, , .		3
54	Effects of Injection Timing on the Exhaust Emissions of a Centrally-Injected Four-Valve Direct-Injection Spark-Ignition Engine. , 0, , .		7

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55	Effects of Injection Timing on Liquid-Phase Fuel Distributions in a Centrally-Injected Four-Valve Direct-Injection Spark-Ignition Engine. , 0, , .		22
56	Effects of Fuel Composition on Mixture Formation in a Firing Direct-Injection Spark-Ignition (DISI) Engine: An Experimental Study using Mie-Scattering and Planar Laser-Induced Fluorescence (PLIF) Techniques. , 0, , .		31
57	Experimental Investigation into the Liquid Sheet Break-Up of High-Pressure DISI Swirl Atomizers. , 0, , .		2
58	The Ultra Lean Burn Partially Stratified Charge Natural Gas Engine. , 0, , .		6
59	The Potential of Fuel Metering Control for Optimising Unburned Hydrocarbon Emissions in Diesel Low Temperature Combustion. , 0, , .		1
60	Spray Behaviour and Particulate Matter Emissions with M15 Methanol/Gasoline Blends in a GDI Engine. , 0, , .		12
61	Comparing the Effect of Fuel/Air Interactions in a Modern High-Speed Light-Duty Diesel Engine. , 0, , .		15
62	Comparing the Effect of a Swirl Flap and Asymmetric Inlet Valve Opening on a Light Duty Diesel Engine. , 0, , .		4
63	Effect of Thermocouple Size on the Measurement of Exhaust Gas Temperature in Internal Combustion Engines. , 0, , .		9
64	The Oxford Cold Driven Shock Tube (CDST) for Fuel Spray and Chemical Kinetics Research. , 0, , .		2
65	Two-Colour Pyrometry Measurements of Low-Temperature Combustion using Borescopic Imaging. , 0, , .		1
66	A Study on Kinetic Mechanisms of Diesel Fuel Surrogate n-Dodecane for the Simulation of Combustion Recession. , 0, , .		4