

Jesus Benajes

List of Publications by Year in descending order

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119
papers

4,327
citations

87401

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169272

56
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121
all docs

121
docs citations

121
times ranked

2066
citing authors

#	ARTICLE	IF	CITATIONS
1	Engine optimization using computational fluid dynamics and genetic algorithms. , 2022, , 71-101.		1
2	A two-equation soot-in-flamelet modeling approach applied under Spray A conditions. Combustion and Flame, 2021, 231, 111488.	2.8	6
3	Combustion system optimization for the integration of e-fuels (Oxymethylene Ether) in compression ignition engines. Fuel, 2021, 305, 121580.	3.4	16
4	Assessing the optimum combustion under constrained conditions. International Journal of Engine Research, 2020, 21, 811-823.	1.4	10
5	Assessment of air management strategies on particulate number and size distributions from a 2-stroke compression-ignition engine operating with gasoline Partially Premixed Combustion concept. International Journal of Engine Research, 2020, 21, 448-469.	1.4	2
6	Estimation of the in-cylinder residual mass fraction at intake valve closing in a two-stroke high-speed direct-injection compression-ignition engine. International Journal of Engine Research, 2020, 21, 838-855.	1.4	1
7	Emissions reduction from passenger cars with RCCI plug-in hybrid electric vehicle technology. Applied Thermal Engineering, 2020, 164, 114430.	3.0	51
8	Understanding the diesel-like spray characteristics applying a flamelet-based combustion model and detailed large eddy simulations. International Journal of Engine Research, 2020, 21, 134-150.	1.4	10
9	Clean and efficient dual-fuel combustion using OME _x as high reactivity fuel: Comparison to diesel-gasoline calibration. Energy Conversion and Management, 2020, 216, 112953.	4.4	30
10	Influence of the n-dodecane chemical mechanism on the CFD modelling of the diesel-like ECN Spray A flame structure at different ambient conditions. Combustion and Flame, 2019, 208, 198-218.	2.8	24
11	Effects of multiple injection strategies on gaseous emissions and particle size distribution in a two-stroke compression-ignition engine operating with the gasoline partially premixed combustion concept. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2019, 233, 2650-2668.	1.1	1
12	Optimization of the parallel and mild hybrid vehicle platforms operating under conventional and advanced combustion modes. Energy Conversion and Management, 2019, 190, 73-90.	4.4	66
13	Why the Development of Internal Combustion Engines Is Still Necessary to Fight against Global Climate Change from the Perspective of Transportation. Applied Sciences (Switzerland), 2019, 9, 4597.	1.3	42
14	Single-cylinder engine evaluation of a multi-component Diesel surrogate fuel at partially-premixed and low-temperature combustion modes. Fuel, 2019, 241, 506-518.	3.4	13
15	Development of a Diesel Surrogate Fuel Library. Fuel, 2018, 222, 21-34.	3.4	53
16	Single-cylinder engine evaluation of a multi-component diesel surrogate fuel at a part-load operating condition with conventional combustion. Fuel, 2018, 226, 286-297.	3.4	13
17	Benefits of E85 versus gasoline as low reactivity fuel for an automotive diesel engine operating in reactivity controlled compression ignition combustion mode. Energy Conversion and Management, 2018, 159, 85-95.	4.4	48
18	Computational optimization of the combustion system of a heavy duty direct injection diesel engine operating with dimethyl-ether. Fuel, 2018, 218, 127-139.	3.4	31

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19	Exploring the limits of the reactivity controlled compression ignition combustion concept in a light-duty diesel engine and the influence of the direct-injected fuel properties. <i>Energy Conversion and Management</i> , 2018, 157, 277-287.	4.4	49
20	Computational optimization of a combustion system for a stoichiometric DME fueled compression ignition engine. <i>Fuel</i> , 2018, 223, 20-31.	3.4	20
21	Potential of RCCI Series Hybrid Vehicle Architecture to Meet the Future CO2 Targets with Low Engine-Out Emissions. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1472.	1.3	22
22	Computational Methodology for Knocking Combustion Analysis in Compression-Ignited Advanced Concepts. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1707.	1.3	6
23	Experimental investigation on the efficiency of a diesel oxidation catalyst in a medium-duty multi-cylinder RCCI engine. <i>Energy Conversion and Management</i> , 2018, 176, 1-10.	4.4	24
24	An Investigation of the Engine Combustion Network "Spray B"™ in a Light Duty Single Cylinder Optical Engine. , 2018, , .		2
25	Fuel consumption and engine-out emissions estimations of a light-duty engine running in dual-mode RCCI/CDC with different fuels and driving cycles. <i>Energy</i> , 2018, 157, 19-30.	4.5	72
26	Influence of Direct-Injected Fuel Properties on Performance and Emissions from a Light-Duty Diesel Engine Running Under RCCI Combustion Mode. , 2018, , .		4
27	On the relation between the external structure and the internal characteristics in the near-nozzle field of diesel sprays. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2017, 231, 360-371.	1.1	3
28	Evaluation of swirl effect on the Global Energy Balance of a HSDI Diesel engine. <i>Energy</i> , 2017, 122, 168-181.	4.5	22
29	Study on LTC for light duty engines " Part 2 " Spray enhancements. <i>Fuel</i> , 2017, 193, 206-219.	3.4	6
30	Achieving clean and efficient engine operation up to full load by combining optimized RCCI and dual-fuel diesel-gasoline combustion strategies. <i>Energy Conversion and Management</i> , 2017, 136, 142-151.	4.4	120
31	Evaluating the reactivity controlled compression ignition operating range limits in a high-compression ratio medium-duty diesel engine fueled with biodiesel and ethanol. <i>International Journal of Engine Research</i> , 2017, 18, 66-80.	1.4	41
32	An investigation on the particulate number and size distributions over the whole engine map from an optimized combustion strategy combining RCCI and dual-fuel diesel-gasoline. <i>Energy Conversion and Management</i> , 2017, 140, 98-108.	4.4	69
33	Gaseous emissions and particle size distribution of dual-mode dual-fuel diesel-gasoline concept from low to full load. <i>Applied Thermal Engineering</i> , 2017, 120, 138-149.	3.0	53
34	Experimental Study of Two Air Management Strategies for Emissions Control in Heavy Duty Engines at Medium to High Loads. <i>Energy & Fuels</i> , 2017, 31, 10011-10022.	2.5	0
35	Swirl ratio and post injection strategies to improve late cycle diffusion combustion in a light-duty diesel engine. <i>Applied Thermal Engineering</i> , 2017, 123, 365-376.	3.0	34
36	Dual-Fuel Combustion for Future Clean and Efficient Compression Ignition Engines. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 36.	1.3	49

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37	A RCCI operational limits assessment in a medium duty compression ignition engine using an adapted compression ratio. <i>Energy Conversion and Management</i> , 2016, 126, 497-508.	4.4	71
38	Thermal analysis of a light-duty CI engine operating with diesel-gasoline dual-fuel combustion mode. <i>Energy</i> , 2016, 115, 1305-1319.	4.5	17
39	An assessment of the dual-mode reactivity controlled compression ignition/conventional diesel combustion capabilities in a EURO VI medium-duty diesel engine fueled with an intermediate ethanol-gasoline blend and biodiesel. <i>Energy Conversion and Management</i> , 2016, 123, 381-391.	4.4	64
40	Effects of piston bowl geometry on Reactivity Controlled Compression Ignition heat transfer and combustion losses at different engine loads. <i>Energy</i> , 2016, 98, 64-77.	4.5	75
41	On the rate of injection modeling applied to direct injection compression ignition engines. <i>International Journal of Engine Research</i> , 2016, 17, 1015-1030.	1.4	32
42	Optimization of the combustion system of a medium duty direct injection diesel engine by combining CFD modeling with experimental validation. <i>Energy Conversion and Management</i> , 2016, 110, 212-229.	4.4	44
43	Evaluation of the Potential Benefits of an Automotive, Gasoline, 2-Stroke Engine. , 2015, , .		5
44	Investigation on Multiple Injection Strategies for Gasoline PPC Operation in a Newly Designed 2-Stroke HSDI Compression Ignition Engine. <i>SAE International Journal of Engines</i> , 2015, 8, 758-774.	0.4	18
45	New 0-D methodology for predicting NO formation under continuously varying temperature and mixture composition conditions. <i>Energy Conversion and Management</i> , 2015, 91, 367-376.	4.4	2
46	Analysis of combustion concepts in a newly designed two-stroke high-speed direct injection compression ignition engine. <i>International Journal of Engine Research</i> , 2015, 16, 52-67.	1.4	35
47	Effects of low reactivity fuel characteristics and blending ratio on low load RCCI (reactivity) T_j ETQq1 1 0.784314 rgBT /Overlock 10 T 5 2015, 90, 1261-1271.	4.5	122
48	An experimental investigation on the influence of piston bowl geometry on RCCI performance and emissions in a heavy-duty engine. <i>Energy Conversion and Management</i> , 2015, 103, 1019-1030.	4.4	75
49	Influence of a low pressure EGR loop on a gasoline turbocharged direct injection engine. <i>Applied Thermal Engineering</i> , 2015, 89, 432-443.	3.0	76
50	Effects of direct injection timing and blending ratio on RCCI combustion with different low reactivity fuels. <i>Energy Conversion and Management</i> , 2015, 99, 193-209.	4.4	150
51	The potential of RCCI concept to meet EURO VI NOx limitation and ultra-low soot emissions in a heavy-duty engine over the whole engine map. <i>Fuel</i> , 2015, 159, 952-961.	3.4	123
52	In-cylinder soot radiation heat transfer in direct-injection diesel engines. <i>Energy Conversion and Management</i> , 2015, 106, 414-427.	4.4	35
53	An adapted heat transfer model for engines with tumble motion. <i>Applied Energy</i> , 2015, 158, 190-202.	5.1	13
54	Analysis of the Load Effect on the Partially Premixed Combustion Concept in a 2-Stroke HSDI Diesel Engine Fueled with Conventional Gasoline. , 2014, , .		8

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55	The role of the in-cylinder gas temperature and oxygen concentration over low load reactivity controlled compression ignition combustion efficiency. <i>Energy</i> , 2014, 78, 854-868.	4.5	97
56	Effects of intake pressure on particle size and number emissions from premixed diesel low-temperature combustion. <i>International Journal of Engine Research</i> , 2014, 15, 222-235.	1.4	6
57	Implementation of the Partially Premixed Combustion concept in a 2-stroke HSDI diesel engine fueled with gasoline. <i>Applied Energy</i> , 2014, 122, 94-111.	5.1	43
58	A new methodology for uncertainties characterization in combustion diagnosis and thermodynamic modelling. <i>Applied Thermal Engineering</i> , 2014, 71, 389-399.	3.0	67
59	Performance and engine-out emissions evaluation of the double injection strategy applied to the gasoline partially premixed compression ignition spark assisted combustion concept. <i>Applied Energy</i> , 2014, 134, 90-101.	5.1	86
60	An investigation on RCCI combustion in a heavy duty diesel engine using in-cylinder blending of diesel and gasoline fuels. <i>Applied Thermal Engineering</i> , 2014, 63, 66-76.	3.0	156
61	Conceptual model description of the double injection strategy applied to the gasoline partially premixed compression ignition combustion concept with spark assistance. <i>Applied Energy</i> , 2014, 129, 1-9.	5.1	51
62	Evaluation of massive exhaust gas recirculation and Miller cycle strategies for mixing-controlled low temperature combustion in a heavy duty diesel engine. <i>Energy</i> , 2014, 71, 355-366.	4.5	45
63	Comprehensive modeling study analyzing the insights of the NO _x conversion process in current diesel engines. <i>Energy Conversion and Management</i> , 2014, 84, 691-700.	4.4	19
64	An investigation of partially premixed compression ignition combustion using gasoline and spark assistance. <i>Applied Thermal Engineering</i> , 2013, 52, 468-477.	3.0	70
65	Experimental characterization of diesel ignition and lift-off length using a single-hole ECN injector. <i>Applied Thermal Engineering</i> , 2013, 58, 554-563.	3.0	135
66	Analysis of the combustion process, pollutant emissions and efficiency of an innovative 2-stroke HSDI engine designed for automotive applications. <i>Applied Thermal Engineering</i> , 2013, 58, 181-193.	3.0	47
67	Instantaneous pressure measurement in pulsating high temperature internal flow in ducts. <i>Applied Thermal Engineering</i> , 2013, 61, 48-54.	3.0	4
68	Particle Size and Number Emissions from RCCI with Direct Injections of Two Fuels. , 2013, , .		16
69	Two Strokes Diesel Engine - Promising Solution to Reduce CO ₂ Emissions. <i>Procedia, Social and Behavioral Sciences</i> , 2012, 48, 2295-2314.	0.5	38
70	The Potential of Highly Premixed Combustion for Pollutant Control in an Automotive Two-Stroke HSDI Diesel Engine. , 2012, , .		6
71	Increased particle emissions from early fuel injection timing Diesel low temperature combustion. <i>Fuel</i> , 2012, 94, 184-190.	3.4	43
72	The role of in-cylinder gas density and oxygen concentration on late spray mixing and soot oxidation processes. <i>Energy</i> , 2011, 36, 1599-1611.	4.5	27

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73	Comparison of two injection systems in an HSDI diesel engine using split injection and different injector nozzles. <i>International Journal of Automotive Technology</i> , 2010, 11, 139-146.	0.7	16
74	Study on Low Temperature Combustion for Light-Duty Diesel Engines. <i>Energy & Fuels</i> , 2010, 24, 355-364.	2.5	26
75	Potential of Atkinson cycle combined with EGR for pollutant control in a HD diesel engine. <i>Energy Conversion and Management</i> , 2009, 50, 174-183.	4.4	60
76	Effect of advancing the closing angle of the intake valves on diffusion-controlled combustion in a HD diesel engine. <i>Applied Thermal Engineering</i> , 2009, 29, 1947-1954.	3.0	51
77	Partially Premixed Combustion in a Diesel Engine Induced by a Pilot Injection at the Low-pressure Top Dead Center. <i>Energy & Fuels</i> , 2009, 23, 2891-2902.	2.5	11
78	Improving pollutant emissions in diesel engines for heavy-duty transportation using retarded intake valve closing strategies. <i>International Journal of Automotive Technology</i> , 2008, 9, 257-265.	0.7	12
79	Selection of a diesel fuel surrogate for the prediction of auto-ignition under HCCI engine conditions. <i>Fuel</i> , 2008, 87, 655-665.	3.4	76
80	The role of nozzle convergence in diesel combustion. <i>Fuel</i> , 2008, 87, 1849-1858.	3.4	27
81	ADVANCED METHODOLOGY FOR IMPROVING TESTING EFFICIENCY IN A SINGLE-CYLINDER RESEARCH DIESEL ENGINE. <i>Experimental Techniques</i> , 2008, 32, 41-47.	0.9	20
82	Advanced Injection Strategies to Attain Partially Premixed Combustion Process in a Heavy Duty Diesel Engine. , 2008, , .		11
83	Combustion and Exhaust Emissions in a Heavy-Duty Diesel Engine with Increased Premixed Combustion Phase by Means of Injection Retarding. <i>Oil and Gas Science and Technology</i> , 2006, 61, 247-258.	1.4	32
84	Influence of injection rate shaping on combustion and emissions for a medium duty diesel engine. <i>Journal of Mechanical Science and Technology</i> , 2006, 20, 1436-1448.	0.7	15
85	The use of micro-orifice nozzles and swirl in a small HSDI engine operating at a late split-injection LTC regime. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2006, 220, 1807-1817.	1.1	12
86	Multi-objective optimization of heavy duty diesel engines under stationary conditions. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2005, 219, 77-87.	1.1	6
87	Investigation of the Influence of Injection Rate Shaping on the Spray Characteristics in a Diesel Common Rail System Equipped with a Piston Amplifier. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2005, 127, 1102-1110.	0.8	29
88	Analysis of the Influence of Diesel Nozzle Geometry in the Injection Rate Characteristic. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2004, 126, 63-71.	0.8	94
89	The modification of the fuel injection rate in heavy-duty diesel engines. Part 1: Effects on engine performance and emissions. <i>Applied Thermal Engineering</i> , 2004, 24, 2701-2714.	3.0	71
90	The modification of the fuel injection rate in heavy-duty diesel engines. <i>Applied Thermal Engineering</i> , 2004, 24, 2715-2726.	3.0	56

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91	CFD modeling of the in-cylinder flow in direct-injection Diesel engines. Computers and Fluids, 2004, 33, 995-1021.	1.3	161
92	The effects of injector hole convergence on diesel combustion and emissions. International Journal of Vehicle Design, 2004, 36, 385.	0.1	3
93	Modelling of turbocharged diesel engines in transient operation. Part 2: Wave action models for calculating the transient operation in a high speed direct injection engine. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2002, 216, 479-493.	1.1	49
94	Modelling of turbocharged diesel engines in transient operation. Part 1: Insight into the relevant physical phenomena. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2002, 216, 431-441.	1.1	47
95	Planar Laser-Induced Fluorescence fuel concentration measurements in isothermal Diesel sprays. Optics Express, 2002, 10, 309.	1.7	51
96	Influence of Pre- and Post-Injection on the Performance and Pollutant Emissions in a HD Diesel Engine. , 2001, , .		73
97	Estimation of the volume velocity fluctuation at the tailpipe end of an I.C. engine exhaust system. Measurement Science and Technology, 2001, 12, 1692-1700.	1.4	3
98	Intake Valve Pre-lift Effect on the Performance of a Turbocharged Diesel Engine. , 1996, , .		16
99	Modelling of supercharger turbines in internal-combustion engines. International Journal of Mechanical Sciences, 1996, 38, 853-869.	3.6	70
100	One-Dimensional Fluid-Dynamic Model for Catalytic Converters in Automotive Engines. , 1995, , .		19
101	A phenomenological combustion model for direct-injection, compression-ignition engines. Applied Mathematical Modelling, 1988, 12, 293-304.	2.2	18
102	THREE DIMENSIONAL CALCULATION OF THE FLOW IN A DI DIESEL ENGINE WITH VARIABLE SWIRL INTAKE PORTS. , 0, , .		6
103	Influence of the Post-Injection Pattern on Performance, Soot and NOx Emissions in a HD Diesel Engine. , 0, , .		68
104	Reduction of Pollutant Emissions in a HD Diesel Engine by Adjustment of Injection Parameters, Boost Pressure and EGR. , 0, , .		11
105	Potential of Premixed Combustion With Flash Late Injection On a Heavy-Duty Diesel Engine. , 0, , .		5
106	Influence of Boost Pressure and Injection Pressure on Combustion Process and Exhaust Emissions in a HD Diesel Engine. , 0, , .		17
107	Optimization Towards Low-temperature Combustion in a HSDI Diesel Engine, Using Consecutive Screenings. , 0, , .		5
108	Particle Size Distribution Measurements from Early to Late Injection Timing Low Temperature Combustion in a Heavy Duty Diesel Engine. SAE International Journal of Fuels and Lubricants, 0, 3, 567-581.	0.2	19

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109	Effect of Intake Oxygen Concentration on Particle Size Distribution Measurements from Diesel Low Temperature Combustion. SAE International Journal of Engines, 0, 4, 1888-1902.	0.4	11
110	An Investigation on Mixing and Auto-ignition using Diesel and Gasoline in a Direct-Injection Compression-Ignition Engine Operating in PCCI Combustion Conditions. SAE International Journal of Engines, 0, 4, 2590-2602.	0.4	35
111	An Experimental Investigation of Diesel-Gasoline Blends Effects in a Direct-Injection Compression-Ignition Engine Operating in PCCI Conditions. , 0, , .		19
112	Impact of Spark Assistance and Multiple Injections on Gasoline PPC Light Load. SAE International Journal of Engines, 0, 7, 1875-1887.	0.4	16
113	An Investigation of Radiation Heat Transfer in a Light-Duty Diesel Engine. SAE International Journal of Engines, 0, 8, 2199-2212.	0.4	13
114	An Insight on the Spray-A Combustion Characteristics by Means of RANS and LES Simulations Using Flamelet-Based Combustion Models. , 0, , .		2
115	Particulates Size Distribution of Reactivity Controlled Compression Ignition (RCCI) on a Medium-Duty Engine Fueled with Diesel and Gasoline at Different Engine Speeds. SAE International Journal of Engines, 0, 10, 2382-2391.	0.4	11
116	Numerical Optimization of the Combustion System of a HD Compression Ignition Engine Fueled with DME Considering Current and Future Emission Standards. , 0, , .		1
117	Evaluating the Efficiency of a Conventional Diesel Oxidation Catalyst for Dual-Fuel RCCI Diesel-Gasoline Combustion. , 0, , .		5
118	Dual-Fuel Ethanol-Diesel Technology Applied in Mild and Full Hybrid Powertrains. , 0, , .		2
119	Experimental Evaluation of Methane-Hydrogen Mixtures for Enabling Stable Lean Combustion in Spark-Ignition Engines for Automotive Applications. , 0, , .		9