

Choongsik Bae

List of Publications by Year in descending order

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120
papers

4,753
citations

126708

33
h-index

128067

60
g-index

120
all docs

120
docs citations

120
times ranked

3062
citing authors

#	ARTICLE	IF	CITATIONS
1	The potential of di-methyl ether (DME) as an alternative fuel for compression-ignition engines: A review. <i>Fuel</i> , 2008, 87, 1014-1030.	3.4	846
2	Alternative fuels for internal combustion engines. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 3389-3413.	2.4	372
3	The Influence of Charge Dilution and Injection Timing on Low-Temperature Diesel Combustion and Emissions. , 0, , .		277
4	Effect of injection parameters on the combustion and emission characteristics in a common-rail direct injection diesel engine fueled with waste cooking oil biodiesel. <i>Renewable Energy</i> , 2014, 63, 9-17.	4.3	193
5	Spray and combustion characteristics of gasoline and diesel in a direct injection compression ignition engine. <i>Fuel</i> , 2013, 109, 616-626.	3.4	117
6	Comparisons of advanced combustion technologies (HCCI, PCCI, and dual-fuel PCCI) on engine performance and emission characteristics in a heavy-duty diesel engine. <i>Fuel</i> , 2020, 262, 116436.	3.4	116
7	Effects of the injection timing on spray and combustion characteristics in a spray-guided DISI engine under lean-stratified operation. <i>Fuel</i> , 2013, 107, 225-235.	3.4	109
8	The effects of tumble and swirl flows on flame propagation in a four-valve S.I. engine. <i>Applied Thermal Engineering</i> , 2007, 27, 2122-2130.	3.0	104
9	Comparative compression ignition engine performance, combustion, and emission characteristics, and trace metals in particulates from Waste cooking oil, Jatropha and Karanja oil derived biodiesels. <i>Fuel</i> , 2019, 236, 1366-1376.	3.4	102
10	Detailed Characterization of Morphology and Dimensions of Diesel Particulates via Thermophoretic Sampling. , 0, , .		89
11	Homogeneous charge compression ignition of LPG and gasoline using variable valve timing in an engine. <i>Fuel</i> , 2007, 86, 494-503.	3.4	85
12	Microwave-assisted plasma ignition in a constant volume combustion chamber. <i>Combustion and Flame</i> , 2016, 167, 86-96.	2.8	85
13	Effects of water direct injection on the torque enhancement and fuel consumption reduction of a gasoline engine under high-load conditions. <i>International Journal of Engine Research</i> , 2016, 17, 795-808.	1.4	77
14	Application of JP-8 in a heavy duty diesel engine. <i>Fuel</i> , 2011, 90, 1762-1770.	3.4	76
15	Application of waste cooking oil (WCO) biodiesel in a compression ignition engine. <i>Fuel</i> , 2016, 176, 20-31.	3.4	74
16	Improvement of combustion and emissions with exhaust gas recirculation in a natural gas-diesel dual-fuel premixed charge compression ignition engine at low load operations. <i>Fuel</i> , 2019, 235, 763-774.	3.4	74
17	Simulation on the effect of the combustion parameters on the piston dynamics and engine performance using the Wiebe function in a free piston engine. <i>Applied Energy</i> , 2013, 107, 446-455.	5.1	69
18	Intake air strategy for low HC and CO emissions in dual-fuel (CNG-diesel) premixed charge compression ignition engine. <i>Applied Energy</i> , 2018, 225, 1068-1077.	5.1	69

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19	Combustion Control Using Two-Stage Diesel Fuel Injection in a Single-Cylinder PCCI Engine. , 0, , .		65
20	Effect of air-fuel mixing quality on characteristics of conventional and low temperature diesel combustion. Applied Energy, 2014, 119, 454-466.	5.1	65
21	Application of double-injection strategy on gasoline compression ignition engine under low load condition. Fuel, 2017, 203, 792-801.	3.4	62
22	Effects of diesel fuel temperature on fuel flow and spray characteristics. Fuel, 2015, 162, 1-7.	3.4	61
23	Combustion process of JP-8 and fossil Diesel fuel in a heavy duty diesel engine using two-color thermometry. Fuel, 2012, 102, 264-273.	3.4	51
24	Assessment of particulate matter in exhaust gas for biodiesel and diesel under conventional and low temperature combustion in a compression ignition engine. Fuel, 2016, 165, 413-424.	3.4	50
25	Fuel temperature influence on spray and combustion characteristics in a constant volume combustion chamber (CVCC) under simulated engine operating conditions. Fuel, 2015, 160, 424-433.	3.4	46
26	Effect of exhaust gas recirculation (EGR) and multiple injections on diesel soot nano-structure and reactivity. Applied Thermal Engineering, 2017, 116, 160-169.	3.0	46
27	Spray and Combustion Characteristics of Ethanol Blended Gasoline in a Spray Guided DISI Engine under Lean Stratified Operation. SAE International Journal of Engines, 0, 3, 213-222.	0.4	45
28	Effect of injection strategy on smoothness, emissions and soot characteristics of PCCI-conventional diesel mode transition. Applied Thermal Engineering, 2016, 93, 1033-1042.	3.0	45
29	Application of a novel microwave-assisted plasma ignition system in a direct injection gasoline engine. Applied Energy, 2017, 205, 562-576.	5.1	42
30	The effects of hydrogen addition on engine power and emission in DME premixed charge compression ignition engine. International Journal of Hydrogen Energy, 2013, 38, 265-273.	3.8	41
31	Improvement of DME HCCI engine combustion by direct injection and EGR. Fuel, 2013, 113, 617-624.	3.4	40
32	Expansion of low-load operating range by mixture stratification in a natural gas-diesel dual-fuel premixed charge compression ignition engine. Energy Conversion and Management, 2019, 194, 186-198.	4.4	40
33	Nanostructure characterization of soot particles from biodiesel and diesel spray flame in a constant volume combustion chamber. Fuel, 2019, 235, 130-149.	3.4	39
34	Air flow and pressure inside a pressure-swirl spray and their effects on spray development. Experimental Thermal and Fluid Science, 2009, 33, 222-231.	1.5	38
35	Immaturity of soot particles in exhaust gas for low temperature diesel combustion in a direct injection compression ignition engine. Fuel, 2015, 161, 312-322.	3.4	37
36	Investigations on air-fuel mixing and flame characteristics of biodiesel fuels for diesel engine application. Applied Energy, 2017, 206, 1203-1213.	5.1	37

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37	The influence of airflow on fuel spray characteristics from a slit injector. <i>Fuel</i> , 2007, 86, 400-409.	3.4	35
38	The effect of oxygen enrichment on incipient soot particles in inverse diffusion flames. <i>Fuel</i> , 2012, 102, 199-207.	3.4	31
39	Load expansion of naphtha multiple premixed compression ignition (MPCI) and comparison with partially premixed compression ignition (PPCI) and conventional diesel combustion (CDC). <i>Fuel</i> , 2014, 136, 1-9.	3.4	31
40	Morphology and nano-structure of soot in diesel spray and in engine exhaust. <i>Fuel</i> , 2017, 203, 47-56.	3.4	31
41	Diesel-fuelled homogeneous charge compression ignition engine with optimized premixing strategies. <i>International Journal of Engine Research</i> , 2007, 8, 127-137.	1.4	28
42	Improvement of diesel combustion with multiple injections at cold condition in a constant volume combustion chamber. <i>Fuel</i> , 2017, 197, 528-540.	3.4	28
43	A comprehensive analysis of multiple injection strategies for improving diesel combustion process under cold-start conditions. <i>Fuel</i> , 2019, 255, 115762.	3.4	28
44	Effect of mixture formation mode on the combustion and emission characteristics in a hydrogen direct-injection engine under different load conditions. <i>Applied Thermal Engineering</i> , 2022, 209, 118276.	3.0	28
45	Effects of valve events on the engine efficiency in a homogeneous charge compression ignition engine fueled by dimethyl ether. <i>Fuel</i> , 2009, 88, 1228-1234.	3.4	27
46	Spray and combustion of waste cooking oil biodiesel in a compression-ignition engine. <i>International Journal of Engine Research</i> , 2015, 16, 664-679.	1.4	27
47	Liquid film thickness inside the high pressure swirl injectors: Real scale measurement and evaluation of analytical equations. <i>Experimental Thermal and Fluid Science</i> , 2010, 34, 113-121.	1.5	26
48	Comprehensive Assessment of Soot Particles from Waste Cooking Oil Biodiesel and Diesel in a Compression Ignition Engine. <i>SAE International Journal of Fuels and Lubricants</i> , 0, 8, 290-297.	0.2	26
49	Performance and emission evaluation of a small-bore biodiesel compression-ignition engine. <i>Energy</i> , 2019, 183, 971-982.	4.5	26
50	Characterization of combustion process and emissions in a natural gas/diesel dual-fuel compression-ignition engine. <i>Fuel</i> , 2021, 291, 120043.	3.4	26
51	Knock Characteristics in Liquefied Petroleum Gas (LPG)~Dimethyl Ether (DME) and Gasoline~DME Homogeneous Charge Compression Ignition Engines. <i>Energy & Fuels</i> , 2009, 23, 1956-1964.	2.5	25
52	Influence of injector spray angle and gasoline-diesel blending ratio on the low load operation in a gasoline compression ignition (GCI) engine. <i>Fuel</i> , 2018, 222, 496-505.	3.4	25
53	Post injection in a compression ignition engine fueled with dimethyl-ether. <i>Fuel</i> , 2013, 103, 1123-1131.	3.4	24
54	Combustion characteristics of gasoline and n-butane under lean stratified mixture conditions in a spray-guided direct injection spark ignition engine. <i>Fuel</i> , 2017, 187, 146-158.	3.4	24

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55	Gasoline~Di-methyl Ether Homogeneous Charge Compression Ignition Engine. Energy & Fuels, 2007, 21, 1942-1949.	2.5	21
56	Behavior of hydrogen hollow-cone spray depending on the ambient pressure. International Journal of Hydrogen Energy, 2021, 46, 4538-4554.	3.8	20
57	HRTEM evaluation of primary soot particles originated in a small-bore biofuel compression-ignition engine. Applied Thermal Engineering, 2019, 159, 113899.	3.0	19
58	INTERNAL AND NEAR-NOZZLE FLOW OF A PRESSURE-SWIRL ATOMIZER UNDER VARIED FUEL TEMPERATURE. , 2007, 17, 529-550.		19
59	The operation characteristics of a liquefied petroleum gas (LPG) spark-ignition free piston engine. Fuel, 2016, 183, 304-313.	3.4	18
60	Effect of injection and ignition timing on a hydrogen-lean stratified charge combustion engine. International Journal of Engine Research, 2022, 23, 816-829.	1.4	18
61	In-Cylinder Spray and Combustion Investigations in a Heavy-Duty Optical Engine Fueled With Waste Cooking Oil, Jatropha, and Karanja Biodiesels. Journal of Energy Resources Technology, Transactions of the ASME, 2019, 141, .	1.4	17
62	Injection Strategy in Natural Gas~Diesel Dual-Fuel Premixed Charge Compression Ignition Combustion under Low Load Conditions. Engineering, 2019, 5, 548-557.	3.2	17
63	Lean combustion of stratified hydrogen in a constant volume chamber. Fuel, 2021, 301, 121045.	3.4	17
64	Modeling of flame lift-off length in diesel low-temperature combustion with multi-dimensional CFD based on the flame surface density and extinction concept. Combustion Theory and Modelling, 2010, 14, 155-175.	1.0	16
65	Experimental investigation of particulate matter structures under partially premixed combustion in a compression ignition engine. Fuel, 2020, 259, 116286.	3.4	16
66	Effects of Hydrogen Ratio and EGR on Combustion and Emissions in a Hydrogen/Diesel Dual-Fuel PCCI Engine. , 0, , .		15
67	The Effects of Injector Temperature on Spray and Combustion Characteristics in a Single Cylinder DISI Engine. , 2005, , .		14
68	The Effect of LPG Composition on Combustion and Performance in a DME-LPG Dual-fuel HCCI Engine. , 2010, , .		14
69	The Effects of Spark Timing and Equivalence Ratio on Spark-Ignition Linear Engine Operation with Liquefied Petroleum Gas. , 0, , .		14
70	Effects of internal exhaust gas recirculation on controlled auto-ignition in a methane engine combustion. Fuel, 2009, 88, 1042-1048.	3.4	13
71	Controlled auto-ignition characteristics of methane~air mixture in a rapid intake compression and expansion machine. Energy, 2010, 35, 4184-4191.	4.5	13
72	Spray and Combustion Visualization of Gasoline and Diesel under Different Ambient Conditions in a Constant Volume Chamber. , 0, , .		13

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73	Effect of oxygen concentration on highly diluted charge compression ignition combustion in an optical engine. <i>Applied Thermal Engineering</i> , 2015, 90, 538-550.	3.0	13
74	Effect of injector configurations on combustion and emissions in a gasoline direct-injection compression ignition engine under low-load conditions. <i>International Journal of Engine Research</i> , 2016, 17, 316-330.	1.4	12
75	Schlieren, Shadowgraph, Mie-scattering visualization of diesel and gasoline sprays in high pressure/high temperature chamber under GDCI engine low load condition. <i>International Journal of Automotive Technology</i> , 2018, 19, 1-8.	0.7	12
76	Regulated, Unregulated, and Particulate Emissions From Biodiesel Blend Fueled Transportation Engine. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2021, 143, .	1.4	10
77	Application of jet propellant-8 to premixed charge ignition combustion in a single-cylinder diesel engine. <i>International Journal of Engine Research</i> , 2015, 16, 92-103.	1.4	9
78	The Effect of Injection Location of DME and LPG in a Dual Fuel HCCI Engine. , 0, , .		8
79	The application of an exhaust heat exchanger to protect the catalyst and improve the fuel economy in a spark-ignition engine. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2007, 221, 621-628.	1.1	7
80	Assessment of Soot Particles in an Exhaust Gas for Low Temperature Diesel Combustion with High EGR in a Heavy Duty Compression Ignition Engine. , 0, , .		7
81	Spray and Combustion of Diesel Fuel under Simulated Cold-Start Conditions at Various Ambient Temperatures. , 0, , .		7
82	Combustion phenomena affecting particle emission under boosting conditions in a turbocharged gasoline direct injection engine. <i>Fuel</i> , 2021, 286, 119362.	3.4	7
83	Microscopic Spray Characteristics of Biodiesels Derived From Karanja, Jatropha, and Waste Cooking Oils. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2020, 142, .	1.4	7
84	Influence of plasma-assisted ignition on flame propagation and performance in a spark-ignition engine. <i>Applications in Energy and Combustion Science</i> , 2021, 6, 100029.	0.9	6
85	Near Nozzle Flow and Atomization Characteristics of Biodiesel Fuels. , 0, , .		5
86	Diesel Injection Strategy in a Premixed Charge Compression Ignition Engine Under a Low Load. <i>Transactions of the Korean Society of Automotive Engineers</i> , 2018, 26, 295-303.	0.1	5
87	An Experimental Measurement of Lubrication Behavior of Piston Rings in a Spark Ignition Engine.. <i>JSME International Journal Series B</i> , 2002, 45, 373-378.	0.3	4
88	Anti-vapor Lock of a Top-Feed Injector for a Liquefied Petroleum Gas Liquid-Phase Injection Engine. <i>Energy & Fuels</i> , 2009, 23, 876-883.	2.5	4
89	Numerical simulation of the fuel trapped in the crevice during a pilot injection in a homogeneous charge compression ignition engine. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2014, 228, 1415-1423.	1.1	4
90	Influence of the Injector Geometry at 250 MPa Injection in a Light-Duty Diesel Engine. , 2017, , .		4

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91	Particle Reduction in LPG Lean Stratified Combustion by Intake Strategies. , 0, , .		4
92	Effects of Nozzle Orifice Diameter and Hole Number on Diesel Combustion and Engine Performance. International Journal of Automotive Technology, 2022, 23, 481-494.	0.7	4
93	Effect of late intake valve closing on the particle number emissions of a turbocharged gasoline direct injection engine. Fuel Processing Technology, 2022, 230, 107209.	3.7	4
94	The Effects of Two-Stage Fuel Injection on Dimethyl-ether (DME) Homogeneous Charge Compression Ignition Engine Combustion. , 0, , .		3
95	Experimental and Computational Investigation of Diesel and Gasoline Injection in a Direct Injection Compression Ignition Engine. International Journal of Automotive Technology, 2020, 21, 23-32.	0.7	3
96	Combustion Phenomena and Emissions in a Dual-Fuel Optical Engine Fueled with Diesel and Natural Gas. SAE International Journal of Advances and Current Practices in Mobility, 0, 4, 502-513.	2.0	3
97	Biodiesel PCI Combustion for Performance and Emission Improvement in a Compression Ignition Engine. Energy & Fuels, 2021, 35, 1523-1534.	2.5	3
98	Operating Characteristics of Dual-fuel Combustion with DME and Gasoline in a Compression Ignition Engine. Transactions of the Korean Society of Automotive Engineers, 2014, 22, 157-164.	0.1	3
99	Effects of Multi-Stage Split Injection on Efficiency and Emissions of Light-Duty Diesel Engine. Energies, 2022, 15, 2219.	1.6	3
100	Effects of High-Response TiAl Turbine Wheel on Engine Performance under Transient Conditions. , 2015, , .		2
101	Biodiesel Soot Characteristics. Energy, Environment, and Sustainability, 2018, , 45-55.	0.6	2
102	Effects of turbocharger rotational inertia on engine and turbine performance in a turbocharged gasoline direct injection engine under transient and steady conditions. International Journal of Engine Research, 2022, 23, 90-103.	1.4	2
103	Investigation of Combustion Process and Emission Characteristics of CNG/Diesel Dual-Fuel PCCI Combustion in a 1.0 Liter Optical CI Engine. Transactions of the Korean Society of Automotive Engineers, 2021, 29, 321-329.	0.1	2
104	Combustion and Spray Characteristics of Diesel and Gasoline in Heavy-duty Compression Ignition Engine Under Low Load Condition. Transactions of the Korean Society of Automotive Engineers, 2020, 28, 367-373.	0.1	2
105	Stratified exhaust gas recirculation under lean operation of a liquefied petroleum gas spark-ignition engine with liquid phase injection. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2007, 221, 343-353.	1.1	1
106	Effects of EGR and DME Injection Strategy in Hydrogen-DME Compression Ignition Engine. , 2011, , .		1
107	Image-Based Flame Temperature and Soot Analysis of Biofuel Spray Combustion. Energy, Environment, and Sustainability, 2019, , 41-54.	0.6	1
108	Characterization of Biodiesel Sprays. Energy, Environment, and Sustainability, 2019, , 203-219.	0.6	1

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109	Celebrating 50 Years of KAIST: Collective Intelligence and Innovation for Confronting Contemporary Issues. ACS Nano, 2021, 15, 1895-1907.	7.3	1
110	Improvement of Flame Kernel Growth by Microwave-Assisted Plasma Ignition. Energy, Environment, and Sustainability, 2020, , 129-142.	0.6	1
111	Spray and Combustion Characteristics of n-dodecane in a Constant Volume Combustion Chamber for ECN Research. Journal of ILASS-Korea, 2014, 19, 188-196.	0.1	1
112	Influence of Microwave Ejection on Flame Formation and Development in a Constant Volume Combustion Chamber. Transactions of the Korean Society of Automotive Engineers, 2017, 25, 683-690.	0.1	1
113	Operating Characteristics of DME-Gasoline Dual-fuel in a Compression Ignition Engine at the Low Load Condition. , 0, , .		0
114	Effect of injection strategies for noise reduction during low temperature combustion-conventional diesel combustion mode transition in a heavy duty diesel engine. , 2015, , .		0
115	The Effect of Training Conditions on the Accuracy of In-cylinder Pressure Prediction DNN Model Using Engine Block Vibration in a CNG-Diesel Dual Fuel Engine. Transactions of the Korean Society of Automotive Engineers, 2021, 29, 751-763.	0.1	0
116	The Effect of Natural Gas Substitution Ratio and Diesel Injection Timing on Accuracy of In-cylinder Pressure Prediction DNN Model from Vibration Signal in a CNG-Diesel Dual-Fuel Engine. Transactions of the Korean Society of Automotive Engineers, 2021, 29, 909-919.	0.1	0
117	SI2-2 Effects of the injection timing on spray and combustion characteristics in a spray-guided DISI engine under the lean-stratified operation(SI: Spark-Ignition Engine Combustion,General Session) Tj ETQq1 1 0.784314 rgBT /Overlock in Internal Combustion Engines. 2012, 2012.8, 609-614.	0.1	0
118	The Effects of Intake Valve Closing Timing on Engine Performance and Emissions in a DME Compression Ignition Engine at Low Load Cold Start Condition. Lecture Notes in Electrical Engineering, 2013, , 211-226.	0.3	0
119	Schlieren, Shadowgraph, Mie-scattering Visualization of Diesel and Gasoline Sprays under GDCI Engine Low Load Condition. Journal of ILASS-Korea, 2015, 20, 187-194.	0.1	0
120	Combustion and Emission Characteristics of n-butane with Enhanced Tumble Flow Under Lean Stratified Conditions. Transactions of the Korean Society of Automotive Engineers, 2019, 27, 361-368.	0.1	0