Nobuyuki Kawahara

List of Publications by Year
in descending order

63	1,802	331670 21	302126 39
papers	citations	h-index	g-index

67	67	67	1168
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effects of spray impingement, injection parameters, and EGR on the combustion and emission characteristics of a PCCI diesel engine. Applied Thermal Engineering, 2012, 37, 165-175.	6.0	206
2	Auto-ignited kernels during knocking combustion in a spark-ignition engine. Proceedings of the Combustion Institute, 2007, 31, 2999-3006.	3.9	110
3	Visualization of auto-ignition and pressure wave during knocking in a hydrogen spark-ignition engine. International Journal of Hydrogen Energy, 2009, 34, 3156-3163.	7.1	105
4	The development of a light-collecting probe with high spatial resolution applicable to randomly fluctuating combustion fields. Measurement Science and Technology, 1999, 10, 1240-1246.	2.6	90
5	An experimental investigation on engine performance and emissions of a supercharged H2-diesel dual-fuel engine. International Journal of Hydrogen Energy, 2010, 35, 844-853.	7.1	90
6	Spatially, temporally, and spectrally resolved measurement of laser-induced plasma in air. Applied Physics B: Lasers and Optics, 2007, 86, 605-614.	2.2	82
7	Performance and emission comparison of a supercharged dual-fuel engine fueled by producer gases with varying hydrogen content. International Journal of Hydrogen Energy, 2009, 34, 7811-7822.	7.1	82
8	Premixed mixture ignition in the end-gas region (PREMIER) combustion in a natural gas dual-fuel engine: operating range and exhaust emissions. International Journal of Engine Research, 2011, 12, 484-497.	2.3	74
9	Effect of syngas composition on combustion and exhaust emission characteristics in a pilot-ignited dual-fuel engine operated in PREMIER combustion mode. International Journal of Hydrogen Energy, 2011, 36, 11985-11996.	7.1	69
10	Combustion characteristics and NOX emissions of biogas fuels with various CO2 contents in a micro co-generation spark-ignition engine. Applied Energy, 2016, 182, 539-547.	10.1	66
11	Laser-induced radical generation and evolution to a self-sustaining flame. Combustion and Flame, 2009, 156, 642-656.	5.2	63
12	Performance and emissions of a supercharged dual-fuel engine fueled by hydrogen-rich coke oven gas. International Journal of Hydrogen Energy, 2009, 34, 9628-9638.	7.1	56
13	Comparison of performance and emissions of a supercharged dual-fuel engine fueled by hydrogen and hydrogen-containing gaseous fuels. International Journal of Hydrogen Energy, 2011, 36, 7339-7352.	7.1	55
14	In situmeasurement of hydrocarbon fuel concentration near a spark plug in an engine cylinder using the 3.392 Âm infrared laser absorption method: application to an actual engine. Measurement Science and Technology, 2003, 14, 1357-1363.	2.6	51
15	Cycle-resolved measurements of the fuel concentration near a spark plug in a rotary engine using an in situ laser absorption method. Proceedings of the Combustion Institute, 2007, 31, 3033-3040.	3.9	45
16	Fuel concentration measurement of premixed mixture using spark-induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 1085-1092.	2.9	44
17	Extension of PREMIER combustion operation range using split micro pilot fuel injection in a dual fuel natural gas compression ignition engine: A performance-based and visual investigation. Fuel, 2016, 185, 243-253.	6.4	44
18	Effects of EGR and Early Injection of Diesel Fuel on Combustion Characteristics and Exhaust Emissions in a Methane Dual Fuel Engine. , 0, , .		41

#	Article	IF	Citations
19	Improvement of thermal efficiency and reduction of NOx emissions by burning a controlled jet plume in high-pressure direct-injection hydrogen engines. International Journal of Hydrogen Energy, 2017, 42, 26114-26122.	7.1	40
20	Differences between PREMIER combustion in a natural gas spark-ignition engine and knocking with pressure oscillations. Proceedings of the Combustion Institute, 2019, 37, 4983-4991.	3.9	32
21	Multidimensional CFD simulation of syngas combustion in a micro-pilot-ignited dual-fuel engine using a constructed chemical kinetics mechanism. International Journal of Hydrogen Energy, 2011, 36, 13793-13807.	7.1	31
22	Effect of Fuel Injection Parameters on Engine Performance and Emissions of a Supercharged Producer Gas-Diesel Dual Fuel Engine. , 2009, , .		30
23	Effect of EGR on Combustion and Exhaust Emissions in Supercharged Dual-Fuel Natural Gas Engine Ignited with Diesel Fuel. , 2009, , .		30
24	UVâ€“visible light absorption by hydroxyl and formaldehyde and knocking combustion in a DME-HCCI engine. Fuel, 2012, 98, 164-175.	6.4	29
25	Ignition, Combustion and Exhaust Emission Characteristics of Micro-pilot Ignited Dual-fuel Engine Operated under PREMIER Combustion Mode. , 2011, , .		21
26	Combustion characteristics of wet ethanol ignited using a focused Q-switched Nd:YAG nanosecond laser. Fuel, 2016, 165, 331-340.	6.4	21
27	Local fuel concentration measurement through spark-induced breakdown spectroscopy in a direct-injection hydrogen spark-ignition engine. International Journal of Hydrogen Energy, 2016, 41, 14283-14292.	7.1	21
28	Cycle-resolved residual gas concentration measurement inside a heavy-duty diesel engine using infrared laser absorption. Proceedings of the Combustion Institute, 2011, 33, 2903-2910.	3.9	18
29	Chemical kinetics and CFD analysis of supercharged micro-pilot ignited dual-fuel engine combustion of syngas. Fuel, 2017, 203, 591-606.	6.4	14
30	Performance, emissions and end-gas autoignition characteristics of PREMIER combustion in a pilot fuel-ignited dual-fuel biogas engine with various CO2 ratios. Fuel, 2021, 286, 119330.	6.4	14
31	Evaluation of the Flame Lift-off Length in Diesel Spray Combustion Based on Flame Extinction. Journal of Thermal Science and Technology, 2010, 5, 238-251.	1.1	13
32	Flux measurements of O2, CO2and NO in an oil furnace. Measurement Science and Technology, 1995, 6, 826-832.	2.6	10
33	Visualization and concentration measurement of a direct-injection hydrogen jet in a constant-volume vessel using spark-induced breakdown spectroscopy. International Journal of Hydrogen Energy, 2014, 39, 17896-17905.	7.1	10
34	End-gas autoignition characteristics of PREMIER combustion in a pilot fuel-ignited dual-fuel biogas engine. Fuel, 2019, 254, 115634.	6.4	9
35	In situ fuel concentration measurement near a spark plug in a spray-guided direct-injection spark-ignition engine using infrared absorption method. Experiments in Fluids, 2010, 49, 925-936.	2.4	8
36	Effect of ambient pressure on local concentration measurement of transient hydrogen jet in a constant-volume vessel using spark-induced breakdown spectroscopy. International Journal of Hydrogen Energy, 2015, 40, 4717-4725.	7.1	8

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37	Effects of Compression Ratio and Simulated EGR on Combustion Characteristics and Exhaust Emissions of a Diesel PCCI Engine. Journal of Thermal Science and Technology, 2011, 6, 463-474.	1.1	7
38	Effect of Hydrogen Concentration on Engine Performance, Exhaust Emissions and Operation Range of PREMIER Combustion in a Dual Fuel Gas Engine Using Methane-Hydrogen Mixtures. , 0, , .		6
39	Characterization of the Spray of the DISI Multi-hole Injector by Means of Phase Doppler Anemometer. Journal of Thermal Science and Technology, 2010, 5, 36-50.	1.1	5
40	Numerical Investigation of Natural Gas-Diesel Dual Fuel Engine with End Gas Ignition. , 2018, , .		5
41	In-Situ Fuel Concentration Measurement near Spark Plug by 3.392 mm Infrared Absorption Method - Pressure and Temperature Dependence of the Gasoline Molar Absorption Coefficient. , 2006, , .		4
42	Combustion and Exhaust Emissions Characteristics in the Supercharged Engine Ignited with Gas Oil Fueled by Pyrolysis Gas Generated from Biomass. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2007, 73, 1337-1344.	0.2	4
43	Quantum cascade laser assisted time-resolved measurements of carbon dioxide absorption during combustion in DME-HCCI engine. Fuel, 2016, 182, 807-815.	6.4	4
44	Characterisation of DME-HCCI combustion cycles for formaldehyde and hydroxyl UVâ€“vis absorption. Fuel, 2017, 210, 578-591.	6.4	4
45	Densitometry and temperature measurement of combustion gas by X-ray Compton scattering. Journal of Synchrotron Radiation, 2016, 23, 617-621.	2.4	4
46	PREMIER combustion characteristics of a pilot fuel-ignited dual-fuel biogas engine with consideration of cycle-to-cycle variations. Fuel, 2022, 314, 123049.	6.4	4
47	Residual Gas Fraction Measurement inside Engine Cylinder Using Infrared Absorption Method with Spark-plug Sensor. , 2007, , .		3
48	XRD and MÃ¶ssbauer studies on Ptâ€“Fe nano-particles synthesized by polyol method for cathode catalyst of PEFCS. Hyperfine Interactions, 2008, 183, 229-233.	0.5	3
49	CO2 concentration measurements inside expansion-compression engine under high EGR conditions using an infrared absorption method. Ain Shams Engineering Journal, 2020, 11, 787-793.	6.1	3
50	Measurement of Cyclic Variation of the Air-to-Fuel Ratio of Exhaust Gas in an SI Engine by Laser-Induced Breakdown Spectroscopy. Energies, 2022, 15, 3053.	3.1	3
51	Droplet diameter measurement near a nozzle exit of a common-rail Diesel injector using PDA. , 2021, 1, .		2
52	Fuel spray impingement and liquid film formation in a gasoline direct-injection spark-ignition engine. International Journal of Environmental Science and Technology, 0, , 1.	3.5	2
53	In situ Measurement of Fuel Concentration of Hydrocarbon near Spark Plug in an Engine Cylinder by 3.392.MU.m Infrared Laser Absorption Method (Application to Actual Engine). 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2004, 70, 518-524.	0.2	1
54	High Temporally Resolved Optical Measurement for Laser Ignition Process of Laminar Premixed Mixtures. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2008, 74, 1633-1640.	0.2	1

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55	Multidimensional CFD Simulation of Diesel Spray Combustion Using Chemical Kinetics. The Proceedings of the International Symposium on Diagnostics and Modeling of Combustion in Internal Combustion Engines, 2017, 2017.9, B103.	0.1	1
56	Biogas Combustion Engines for Green Energy Generation. SpringerBriefs in Applied Sciences and Technology, 2022, , .	0.4	1
57	Method for Predicting Scuffing on Poston Ring and Cylinder Liner in Marine Diesel Engines: Damage Prevention Using Observation of Combustion Flame. Journal of the Japan Institute of Marine Engineering, 2004, 39, 250-258.	0.0	0
58	In situ Measurement of Fuel Concentration of Hydrocarbon near Spark Plug in an Engine Cylinder by 3.392.MU.m Inflamed Laser Absorption Method (Discussion of Applicability with Homogeneous) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6 Mechanical Engineers Series B B-hen, 2004, 70, 511-517.	0.2	0
59	Advanced Combustion in Natural Gas-Fueled Engines. Energy, Environment, and Sustainability, 2019, , 215-250.	1.0	0
60	HC2-1 Spectrum Analysis of Chemiluminescence of a Low Sooting PCCI Diesel Engine Operating with Moderately Early Injection Timing(HC: HCCI Combustion,General Session Papers). The Proceedings of the International Symposium on Diagnostics and Modeling of Combustion in Internal Combustion Engines, 2012, 2012.8, 410-415.	0.1	0
61	F071002 Simultaneous Measurements of Fuel/CO_2 Concentration around a Spark Plug. The Proceedings of Mechanical Engineering Congress Japan, 2013, 2013, _F071002-1-_F071002-5.	0.0	0
62	Experimental and Numerical Analysis of Laser-ignition of Wet Ethanol with Elevated Water Content. International Journal of Automotive Engineering and Technologies, 2019, 8, 61-69.	0.5	0
63	Binary collisions and coalescence of droplets in low-pressure fuel injector. Thermal Science, 2021, 25, 1963-1973.	1.1	0