

Robert W Dibble

List of Publications by Year in descending order

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128
papers

4,256
citations

218592

26
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243529

44
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131
all docs

131
docs citations

131
times ranked

2382
citing authors

#	ARTICLE	IF	CITATIONS
1	A numerical investigation into the anomalous slight NO _x increase when burning biodiesel; A new (old) theory. Fuel Processing Technology, 2007, 88, 659-667.	3.7	265
2	A Multi-Zone Model for Prediction of HCCI Combustion and Emissions. , 0, , .		260
3	Demonstrating direct use of wet ethanol in a homogeneous charge compression ignition (HCCI) engine. Energy, 2009, 34, 782-787.	4.5	157
4	Numerical and experimental study of water/oil emulsified fuel combustion in a diesel engine. Fuel, 2002, 81, 2035-2044.	3.4	134
5	Enhancement of flame development by microwave-assisted spark ignition in constant volume combustion chamber. Combustion and Flame, 2013, 160, 1225-1234.	2.8	129
6	HCCI Engine Control by Thermal Management. , 0, , .		108
7	Experimental investigation of butanol isomer combustion in Homogeneous Charge Compression Ignition (HCCI) engines. Applied Energy, 2016, 165, 612-626.	5.1	91
8	Experimental study of biogas combustion in an HCCI engine for power generation with high indicated efficiency and ultra-low NO _x emissions. Energy Conversion and Management, 2012, 53, 154-162.	4.4	87
9	Wet ethanol in HCCI engines with exhaust heat recovery to improve the energy balance of ethanol fuels. Applied Energy, 2012, 98, 448-457.	5.1	86
10	Intermediate temperature heat release in an HCCI engine fueled by ethanol/n-heptane mixtures: An experimental and modeling study. Combustion and Flame, 2014, 161, 680-695.	2.8	83
11	The Effect of Oxygenates on Diesel Engine Particulate Matter. , 0, , .		81
12	A Sequential Fluid-Mechanic Chemical-Kinetic Model of Propane HCCI Combustion. , 2001, , .		78
13	A Decoupled Model of Detailed Fluid Mechanics Followed by Detailed Chemical Kinetics for Prediction of Iso-Octane HCCI Combustion. , 0, , .		76
14	Methylal and Methylal-Diesel Blended Fuels for Use in Compression-Ignition Engines. , 0, , .		73
15	HCCI in a CFR Engine: Experiments and Detailed Kinetic Modeling. , 0, , .		70
16	HCCI Combustion: Analysis and Experiments. , 0, , .		65
17	Prediction of carbon monoxide and hydrocarbon emissions in iso-octane HCCI engine combustion using multizone simulations. Proceedings of the Combustion Institute, 2002, 29, 687-694.	2.4	62
18	Increased efficiency in SI engine with air replaced by oxygen in argon mixture. Proceedings of the Combustion Institute, 2011, 33, 3141-3149.	2.4	58

#	ARTICLE	IF	CITATIONS
19	Piston-Liner Crevice Geometry Effect on HCCI Combustion by Multi-Zone Analysis. , 0, , .		55
20	Optimal operating conditions for wet ethanol in a HCCI engine using exhaust gas heat recovery. Applied Energy, 2014, 116, 269-277.	5.1	53
21	Experimental evaluation of strategies to increase the operating range of a biogas-fueled HCCI engine for power generation. Applied Energy, 2012, 97, 618-629.	5.1	51
22	Spatial Analysis of Emissions Sources for HCCI Combustion at Low Loads Using a Multi-Zone Model. , 2004, , .		47
23	Use of an optical probe for time-resolved in situ measurement of local air-to-fuel ratio and extent of fuel mixing with applications to low NOx emissions in premixed gas turbines. Proceedings of the Combustion Institute, 1996, 26, 2749-2755.	0.3	46
24	Gas temperature above a porous radiant burner: Comparison of measurements and model predictions. Proceedings of the Combustion Institute, 1996, 26, 1755-1762.	0.3	44
25	The effects of intake pressure, fuel concentration, and bias voltage on the detection of ions in a Homogeneous Charge Compression Ignition (HCCI) engine. Proceedings of the Combustion Institute, 2009, 32, 2877-2884.	2.4	44
26	Dual-fuel operation of gasoline and natural gas in a turbocharged engine. Fuel, 2019, 237, 694-706.	3.4	43
27	Development of a reduced chemical mechanism targeted for a 5-component gasoline surrogate: A case study on the heat release nature in a GCI engine. Combustion and Flame, 2017, 178, 268-276.	2.8	41
28	In situ measurement of hydrocarbon fuel concentration near a spark plug in an engine cylinder using the 3.392 μm infrared laser absorption method: discussion of applicability with a homogeneous methane-air mixture. Measurement Science and Technology, 2003, 14, 1350-1356.	1.4	40
29	Analysis of benefits of using internal exhaust gas recirculation in biogas-fueled HCCI engines. Energy Conversion and Management, 2014, 87, 1186-1194.	4.4	38
30	Operation of a Four-Cylinder 1.9L Propane Fueled Homogeneous Charge Compression Ignition Engine: Basic Operating Characteristics and Cylinder-to-Cylinder Effects. , 0, , .		37
31	Study on the phase relation between ion current signal and combustion phase in an HCCI combustion engine. Proceedings of the Combustion Institute, 2015, 35, 3097-3105.	2.4	37
32	Emissions Performance of Oxygenate-in-Diesel Blends and Fischer-Tropsch Diesel in a Compression Ignition Engine. , 0, , .		36
33	Investigation of biofuels from microorganism metabolism for use as anti-knock additives. Fuel, 2014, 117, 939-943.	3.4	36
34	1.9-Liter Four-Cylinder HCCI Engine Operation with Exhaust Gas Recirculation. , 2001, , .		35
35	The Effect of the Di-Tertiary Butyl Peroxide (DTBP) additive on HCCI Combustion of Fuel Blends of Ethanol and Diethyl Ether. , 0, , .		35
36	Extending the Lean Stability Limits of Gasoline Using a Microwave-Assisted Spark Plug. , 0, , .		35

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37	Predicting Fuel Performance for Future HCCI Engines. <i>Combustion Science and Technology</i> , 2013, 185, 735-748.	1.2	35
38	Application of Corona Discharge Ignition in a Boosted Direct-Injection Single Cylinder Gasoline Engine: Effects on Combustion Phasing, Fuel Consumption, and Emissions. <i>SAE International Journal of Engines</i> , 0, 9, 1970-1988.	0.4	35
39	Autoignition of Dimethyl Ether and Dimethoxy Methane Sprays at High Pressures. , 0, , .		34
40	Knock Prediction Using a Simple Model for Ignition Delay. , 0, , .		34
41	Terpineol as a novel octane booster for extending the knock limit of gasoline. <i>Fuel</i> , 2017, 187, 9-15.	3.4	34
42	Experimental and numerical analysis of the performance and exhaust gas emissions of a biogas/n-heptane fueled HCCI engine. <i>Energy</i> , 2016, 115, 180-193.	4.5	33
43	Simulating a Homogeneous Charge Compression Ignition Engine Fuelled with a DEE/EtOH Blend. , 0, , .		32
44	Cyclic variations and prior-cycle effects of ion current sensing in an HCCI engine: A time-series analysis. <i>Applied Energy</i> , 2016, 168, 628-635.	5.1	32
45	Performance and emissions of gasoline blended with terpineol as an octane booster. <i>Renewable Energy</i> , 2017, 101, 1087-1093.	4.3	32
46	Catalytic oxidation of natural gas over supported platinum: Flow reactor experiments and detailed numerical modeling. <i>Proceedings of the Combustion Institute</i> , 1996, 26, 1771-1778.	0.3	31
47	Effect of Mixing on Hydrocarbon and Carbon Monoxide Emissions Prediction for Isooctane HCCI Engine Combustion Using a Multi-zone Detailed Kinetics Solver. , 2003, , .		31
48	Fuel and Additive Characterization for HCCI Combustion. , 0, , .		28
49	Maximizing Power Output in an Automotive Scale Multi-Cylinder Homogeneous Charge Compression Ignition (HCCI) Engine. , 0, , .		27
50	Investigation of differential diffusion in turbulent jet flows using planar laser Rayleigh scattering. <i>Combustion and Flame</i> , 2005, 143, 644-649.	2.8	26
51	A Multi-Cylinder HCCI Engine Model for Control. , 2004, , 307.		25
52	Exploration of Heat Release in a Homogeneous Charge Compression Ignition Engine with Primary Reference Fuels. , 0, , .		25
53	Extending Lean Operating Limit and Reducing Emissions of Methane Spark-Ignited Engines Using a Microwave-Assisted Spark Plug. <i>Journal of Combustion</i> , 2012, 2012, 1-8.	0.5	24
54	Quantifying the contribution of lubrication oil carbon to particulate emissions from a diesel engine. , 0, , .		23

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55	Laminar Burning Velocities and Kinetic Modeling of a Renewable E-Fuel: Formic Acid and Its Mixtures with H_2 and CO_2 . Energy & Fuels, 2020, 34, 7564-7572.	2.5	23
56	Experimental studies of autoignition events in unsteady hydrogen-air flames. Combustion and Flame, 2015, 162, 3210-3219.	2.8	22
57	A skeletal gasoline flame ionization mechanism for combustion timing prediction on HCCI engines. Proceedings of the Combustion Institute, 2017, 36, 3669-3676.	2.4	22
58	Equivalence Ratio-EGR Control of HCCI Engine Operation and the Potential for Transition to Spark-Ignited Operation. , 2001, , .		21
59	Development of a detailed surface mechanism for the selective catalytic reduction of NO with ethanol on silver alumina catalyst. Proceedings of the Combustion Institute, 2009, 32, 2827-2833.	2.4	20
60	Exploring Strategies for Reducing High Intake Temperature Requirements and Allowing Optimal Operational Conditions in a Biogas Fueled HCCI Engine for Power Generation. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	0.5	20
61	Isotopic Tracing of Fuel Carbon in the Emissions of a Compression-Ignition Engine Fueled with Biodiesel Blends. , 0, , .		18
62	Fuel-Dithering Optimization of Efficiency of TWC on Natural Gas IC Engine. SAE International Journal of Engines, 0, 8, 1246-1252.	0.4	18
63	Isotopic Tracing of Bio-Derived Carbon from Ethanol-in-Diesel Blends in the Emissions of a Diesel Engine. , 0, , .		17
64	Experimental and Theoretical Study of the Energy Savings from Wet Ethanol Production and Utilization. Energy Technology, 2014, 2, 440-445.	1.8	17
65	Experimental and Numerical Investigation of Ethanol/Diethyl Ether Mixtures in a CI Engine. , 0, , .		17
66	Modes of reaction front propagation and end-gas combustion of hydrogen/air mixtures in a closed chamber. International Journal of Hydrogen Energy, 2017, 42, 10501-10512.	3.8	17
67	A Path towards High Efficiency Using Argon in an HCCI Engine. , 0, , .		17
68	Effect of Mixture Formation and Injection Strategies on Stochastic Pre-Ignition. , 0, , .		15
69	Thermal Charge Conditioning for Optimal HCCI Engine Operation. Journal of Energy Resources Technology, Transactions of the ASME, 2002, 124, 67-75.	1.4	14
70	Microphones and Knock Sensors for Feedback Control of HCCI Engines. , 2004, , 77.		14
71	Numerical Analysis of Biogas Composition Effects on Combustion Parameters and Emissions in Biogas Fueled HCCI Engines for Power Generation. Journal of Engineering for Gas Turbines and Power, 2013, 135, .	0.5	14
72	A Model for Prediction of Knock in the Cycle Simulation by Detail Characterization of Fuel and Temperature Stratification. SAE International Journal of Engines, 0, 8, 1520-1534.	0.4	14

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73	Experimental and numerical investigation of ion signals in boosted HCCI combustion using cesium and potassium acetate additives. <i>Energy Conversion and Management</i> , 2016, 108, 181-189.	4.4	14
74	Optimizing split fuel injection strategies to avoid pre-ignition and super-knock in turbocharged engines. <i>International Journal of Engine Research</i> , 2021, 22, 199-221.	1.4	14
75	Effect of Different Fluids on Injection Strategies to Suppress Pre-Ignition. , 0, , .		14
76	An Experimental Study of Air-Reformed Natural Gas in Spark-Ignited Engines. , 1996, , .		13
77	Homogeneous Charge Compression Ignition (HCCI) Engine. <i>SAE International Journal of Fuels and Lubricants</i> , 0, 2, 817-826.	0.2	13
78	Techno-Economic Analysis of Pressurized Oxy-Fuel Combustion of Petroleum Coke. <i>Energies</i> , 2020, 13, 3463.	1.6	13
79	Mechanism Triggering Pre-Ignition in a Turbo-Charged Engine. , 0, , .		13
80	A Perfectly-Stirred-Reaction Description of Chemistry in Turbulent Nonpremixed Combustion of Methane in Air. <i>Combustion Science and Technology</i> , 1992, 84, 45-50.	1.2	12
81	Measurement of Air-Fuel Ratio Fluctuations Caused by Combustor Driven Oscillations. , 1998, , .		12
82	Tracing fuel component carbon in the emissions from diesel engines. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004, 223-224, 837-841.	0.6	12
83	Effect of Timing and Location of Hotspot on Super Knock during Pre-ignition. , 0, , .		12
84	Effectiveness of Fuel Enrichment on Knock Suppression in a Gasoline Spark-Ignited Engine. , 0, , .		12
85	Investigating Water Injection in Single-Cylinder Gasoline Spark-Ignited Engines at Fixed Speed. <i>Energy & Fuels</i> , 2020, 34, 16636-16653.	2.5	12
86	Experimental Study of Methane Fuel Oxycombustion in a Spark-Ignited Engine. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2014, 136, .	1.4	11
87	Spark-ignited engine NOx emissions in a low-nitrogen oxycombustion environment. <i>Applied Energy</i> , 2014, 118, 22-31.	5.1	11
88	Numerical analysis of a catalytic radiant burner: effect of catalyst on radiant efficiency and operability. <i>Catalysis Today</i> , 1999, 47, 253-262.	2.2	10
89	A Computer Generated Reduced Iso-Octane Chemical Kinetic Mechanism Applied to Simulation of HCCI Combustion. , 2002, , .		10
90	Effect of electric fields on the ion current signals in a constant volume combustion chamber. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 4865-4873.	2.4	10

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91	Emissions from a Cummins B5.9 Diesel Engine Fueled with Oxygenate-in-Diesel Blends. , 0, , .		9
92	An Investigation of the Effect of Fuel-Air Mixedness on the Emissions from an HCCI Engine. , 2002, , .		9
93	Isotopic Tracing of Fuel Component Carbon in the Emissions From Diesel Engines. , 0, , .		9
94	A Sequential Chemical Kinetics-CFD-Chemical Kinetics Methodology to Predict HCCI Combustion and Main Emissions. , 2012, , .		9
95	Î±-Pinene - A High Energy Density Biofuel for SI Engine Applications. , 0, , .		9
96	Effect of hydrogen peroxide addition to methane fueled homogeneous charge compression ignition engines through numerical simulations. International Journal of Engine Research, 2016, 17, 209-220.	1.4	9
97	Demonstrating Optimum HCCI Combustion with Advanced Control Technology. , 2009, , .		8
98	Characterization of Ion Signals under Ringing Conditions in an HCCI Engine. , 0, , .		8
99	Multi-level computational exploration of advanced combustion engine operating strategies. Applied Energy, 2016, 184, 1273-1283.	5.1	8
100	Current Research in HCCI Combustion at UC Berkeley and LLNL. , 0, , .		7
101	Research Octane Numbers of Primary and Mixed Alcohols from Biomass-Based Syngas. Energy & Fuels, 2014, 28, 3185-3191.	2.5	7
102	Knock and Pre-Ignition Limits on Utilization of Ethanol in Octane-on-Demand Concept. , 0, , .		7
103	Calcium Looping: On the Positive Influence of SO ₂ and the Negative Influence of H ₂ O on CO ₂ Capture by Metamorphosed Limestone-Derived Sorbents. ACS Omega, 2020, 5, 32318-32333.	1.6	6
104	Nanosecond Pulsed Discharge Ignition in a Lean Methane-Air Mixture. , 2015, , .		6
105	On Maximizing Argon Engines' Performance via Subzero Intake Temperatures in HCCI Mode at High Compression Ratios. , 0, , .		6
106	Spark Plug Modifications for Improving Ion Sensing Capabilities in a Homogeneous Charge Compression Ignition (HCCI) Engine. , 2009, , .		5
107	Autoignition and Stabilization of Diesel-Propane Lifted Flames Issuing into a Hot Vitiated Co-flow. Energy & Fuels, 2016, 30, 9730-9736.	2.5	5
108	The Influence of Intake Pressure and Ethanol Addition to Gasoline on Single- and Dual-Stage Autoignition in an HCCI Engine. Energy & Fuels, 2018, 32, 9822-9837.	2.5	5

#	ARTICLE	IF	CITATIONS
109	Knock, Auto-Ignition and Pre-Ignition Tendency of Fuels for Advanced Combustion Engines (FACE) with Ethanol Blends and Similar RON. , 0, , .		5
110	The Role of Hydrodynamic Enhancement on Ignition of Lean Methane-Air Mixtures by Pulsed Nanosecond Discharges for Automotive Engine Applications. Combustion Science and Technology, 2017, 189, 2023-2037.	1.2	4
111	Thermal Management for 6-Cylinder HCCI Engine: Low Cost, High Efficiency, Ultra-Low NOx Power Generation. , 2004, , .		4
112	Testing of the Katrix rotary lobe expander for distributed concentrating solar combined heat and power systems. Energy Science and Engineering, 2014, 2, 61-76.	1.9	3
113	Improving Vegetable Oil Fueled CI Engine Characteristics Through Diethyl Ether Blending. , 2016, , .		3
114	Near-engine-condition simulation of ionization in pre-ignition based on chemical kinetics. Fuel, 2017, 190, 444-450.	3.4	3
115	Experimental and Numerical Investigation of the Argon Power Cycle. , 2018, , .		3
116	Numerical Analysis of Biogas Composition Effects on Combustion Parameters and Emissions in Biogas Fueled HCCI Engines for Power Generation. , 2011, , .		2
117	Experimental Study of Methane Fuel Oxycombustion in an SI Engine. , 2012, , .		2
118	Simulation and experimental study on ion current under GDI-HCCI combustion mode. International Journal of Powertrains, 2016, 5, 120.	0.1	2
119	HCCI Cycle-by-Cycle Combustion Phase Control Based on Ion Current Technology in GDI Engine. Lecture Notes in Electrical Engineering, 2013, , 119-133.	0.3	2
120	Catalytic Combustion of Natural Gas Over Supported Platinum: Flow Reactor Experiments and Detailed Numerical Modeling. , 1996, , .		2
121	Fast Response Extraction Probe for Measurement of Air-Fuel Ratio Fluctuations in Lean Premixed Combustors. , 1999, , .		2
122	Landfill Gas Fueled HCCI Demonstration System. , 2006, , 327.		1
123	Exploring Strategies for Reducing High Intake Temperature Requirements and Allowing Optimal Operational Conditions in a Biogas Fueled HCCI Engine for Power Generation. , 2011, , .		1
124	Diethyl Ether as an Ignition Enhancer for Naphtha Creating a Drop in Fuel for Diesel. , 2016, , .		1
125	A Comparison of Three Ion Sensing Circuits in a Homogeneous Charge Compression Ignition Engine. Combustion Science and Technology, 2017, 189, 1294-1306.	1.2	1
126	Use of an Extractive Laser Probe for Time-Resolved Mixture Fraction Measurements in a 9 ATM Gas Turbine Fuel Injector. , 2001, , .		1

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127	Solid State Electrochemical Sensor for Monitoring Lean Direct Injection Engines. , 2008, , .		0
128	Pre-ignition Detection Followed by Immediate Damage Mitigation in a Spark-Ignited Engine. , 0, , .		0