

# Robert W Dibble

## List of Publications by Year in descending order

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128  
papers

4,256  
citations

218592

26  
h-index

243529

44  
g-index

131  
all docs

131  
docs citations

131  
times ranked

2382  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Investigating Water Injection in Single-Cylinder Gasoline Spark-Ignited Engines at Fixed Speed. <i>Energy &amp; Fuels</i> , 2020, 34, 16636-16653.	2.5	12
3	Techno-Economic Analysis of Pressurized Oxy-Fuel Combustion of Petroleum Coke. <i>Energies</i> , 2020, 13, 3463.	1.6	13
4	Calcium Looping: On the Positive Influence of SO <sub>2</sub> and the Negative Influence of H <sub>2</sub> O on CO <sub>2</sub> Capture by Metamorphosed Limestone-Derived Sorbents. <i>ACS Omega</i> , 2020, 5, 32318-32333.	1.6	6
5	Laminar Burning Velocities and Kinetic Modeling of a Renewable E-Fuel: Formic Acid and Its Mixtures with H <sub>2</sub> and CO <sub>2</sub> . <i>Energy &amp; Fuels</i> , 2020, 34, 7564-7572.	2.5	23
6	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
7	Dual-fuel operation of gasoline and natural gas in a turbocharged engine. <i>Fuel</i> , 2019, 237, 694-706.	3.4	43
8	The Influence of Intake Pressure and Ethanol Addition to Gasoline on Single- and Dual-Stage Autoignition in an HCCI Engine. <i>Energy &amp; Fuels</i> , 2018, 32, 9822-9837.	2.5	5
9	Experimental and Numerical Investigation of the Argon Power Cycle. , 2018, , .		3
10	A skeletal gasoline flame ionization mechanism for combustion timing prediction on HCCI engines. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 3669-3676.	2.4	22
11	Modes of reaction front propagation and end-gas combustion of hydrogen/air mixtures in a closed chamber. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 10501-10512.	3.8	17
12	A Comparison of Three Ion Sensing Circuits in a Homogeneous Charge Compression Ignition Engine. <i>Combustion Science and Technology</i> , 2017, 189, 1294-1306.	1.2	1
13	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. <i>Combustion and Flame</i> , 2017, 178, 268-276.	2.8	41
14	Near-engine-condition simulation of ionization in pre-ignition based on chemical kinetics. <i>Fuel</i> , 2017, 190, 444-450.	3.4	3
15	The Role of Hydrodynamic Enhancement on Ignition of Lean Methane-Air Mixtures by Pulsed Nanosecond Discharges for Automotive Engine Applications. <i>Combustion Science and Technology</i> , 2017, 189, 2023-2037.	1.2	4
16	Performance and emissions of gasoline blended with terpineol as an octane booster. <i>Renewable Energy</i> , 2017, 101, 1087-1093.	4.3	32
17	Terpineol as a novel octane booster for extending the knock limit of gasoline. <i>Fuel</i> , 2017, 187, 9-15.	3.4	34
18	Simulation and experimental study on ion current under GDI-HCCI combustion mode. <i>International Journal of Powertrains</i> , 2016, 5, 120.	0.1	2

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19	Diethyl Ether as an Ignition Enhancer for Naphtha Creating a Drop in Fuel for Diesel. , 2016, , .		1
20	Improving Vegetable Oil Fueled CI Engine Characteristics Through Diethyl Ether Blending. , 2016, , .		3
21	Experimental and numerical investigation of ion signals in boosted HCCI combustion using cesium and potassium acetate additives. Energy Conversion and Management, 2016, 108, 181-189.	4.4	14
22	Cyclic variations and prior-cycle effects of ion current sensing in an HCCI engine: A time-series analysis. Applied Energy, 2016, 168, 628-635.	5.1	32
23	Experimental and numerical analysis of the performance and exhaust gas emissions of a biogas/n-heptane fueled HCCI engine. Energy, 2016, 115, 180-193.	4.5	33
24	Autoignition and Stabilization of Dieselâ€™Propane Lifted Flames Issuing into a Hot Vitiated Co-flow. Energy & Fuels, 2016, 30, 9730-9736.	2.5	5
25	Multi-level computational exploration of advanced combustion engine operating strategies. Applied Energy, 2016, 184, 1273-1283.	5.1	8
26	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
27	Experimental investigation of butanol isomer combustion in Homogeneous Charge Compression Ignition (HCCI) engines. Applied Energy, 2016, 165, 612-626.	5.1	91
28	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
29	Experimental studies of autoignition events in unsteady hydrogenâ€™air flames. Combustion and Flame, 2015, 162, 3210-3219.	2.8	22
30	Nanosecond Pulsed Discharge Ignition in a Lean Methane-Air Mixture. , 2015, , .		6
31	Experimental Study of Methane Fuel Oxycombustion in a Spark-Ignited Engine. Journal of Energy Resources Technology, Transactions of the ASME, 2014, 136, .	1.4	11
32	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
33	Experimental and Theoretical Study of the Energy Savings from Wet Ethanol Production and Utilization. Energy Technology, 2014, 2, 440-445.	1.8	17
34	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
35	Research Octane Numbers of Primary and Mixed Alcohols from Biomass-Based Syngas. Energy & Fuels, 2014, 28, 3185-3191.	2.5	7
36	Optimal operating conditions for wet ethanol in a HCCI engine using exhaust gas heat recovery. Applied Energy, 2014, 116, 269-277.	5.1	53

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37	Spark-ignited engine NOx emissions in a low-nitrogen oxycombustion environment. Applied Energy, 2014, 118, 22-31.	5.1	11
38	Investigation of biofuels from microorganism metabolism for use as anti-knock additives. Fuel, 2014, 117, 939-943.	3.4	36
39	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
40	Predicting Fuel Performance for Future HCCI Engines. Combustion Science and Technology, 2013, 185, 735-748.	1.2	35
41	Enhancement of flame development by microwave-assisted spark ignition in constant volume combustion chamber. Combustion and Flame, 2013, 160, 1225-1234.	2.8	129
42	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
43	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
44	Extending Lean Operating Limit and Reducing Emissions of Methane Spark-Ignited Engines Using a Microwave-Assisted Spark Plug. Journal of Combustion, 2012, 2012, 1-8.	0.5	24
45	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
46	Experimental Study of Methane Fuel Oxycombustion in an SI Engine. , 2012, , .		2
47	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
48	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
49	A Sequential Chemical Kinetics-CFD-Chemical Kinetics Methodology to Predict HCCI Combustion and Main Emissions. , 2012, , .		9
50	Experimental study of biogas combustion in an HCCI engine for power generation with high indicated efficiency and ultra-low NOx emissions. Energy Conversion and Management, 2012, 53, 154-162.	4.4	87
51	Numerical Analysis of Biogas Composition Effects on Combustion Parameters and Emissions in Biogas Fueled HCCI Engines for Power Generation. , 2011, , .		2
52	Exploring Strategies for Reducing High Intake Temperature Requirements and Allowing Optimal Operational Conditions in a Biogas Fueled HCCI Engine for Power Generation. , 2011, , .		1
53	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
54	Demonstrating Optimum HCCI Combustion with Advanced Control Technology. , 2009, , .		8

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55	Spark Plug Modifications for Improving Ion Sensing Capabilities in a Homogeneous Charge Compression Ignition (HCCI) Engine. , 2009, , .		5
56	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
57	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
58	Demonstrating direct use of wet ethanol in a homogeneous charge compression ignition (HCCI) engine. Energy, 2009, 34, 782-787.	4.5	157
59	Solid State Electrochemical Sensor for Monitoring Lean Direct Injection Engines. , 2008, , .		0
60	A numerical investigation into the anomalous slight NOx increase when burning biodiesel; A new (old) theory. Fuel Processing Technology, 2007, 88, 659-667.	3.7	265
61	Landfill Gas Fueled HCCI Demonstration System. , 2006, , 327.		1
62	Investigation of differential diffusion in turbulent jet flows using planar laser Rayleigh scattering. Combustion and Flame, 2005, 143, 644-649.	2.8	26
63	Microphones and Knock Sensors for Feedback Control of HCCI Engines. , 2004, , 77.		14
64	Spatial Analysis of Emissions Sources for HCCI Combustion at Low Loads Using a Multi-Zone Model. , 2004, , .		47
65	Tracing fuel component carbon in the emissions from diesel engines. Nuclear Instruments & Methods in Physics Research B, 2004, 223-224, 837-841.	0.6	12
66	A Multi-Cylinder HCCI Engine Model for Control. , 2004, , 307.		25
67	Thermal Management for 6-Cylinder HCCI Engine: Low Cost, High Efficiency, Ultra-Low NOx Power Generation. , 2004, , .		4
68	In situ measurement of hydrocarbon fuel concentration near a spark plug in an engine cylinder using the 3.392 Åm infrared laser absorption method: discussion of applicability with a homogeneous methane-air mixture. Measurement Science and Technology, 2003, 14, 1350-1356.	1.4	40
69	Effect of Mixing on Hydrocarbon and Carbon Monoxide Emissions Prediction for Isooctane HCCI Engine Combustion Using a Multi-zone Detailed Kinetics Solver. , 2003, , .		31
70	Thermal Charge Conditioning for Optimal HCCI Engine Operation. Journal of Energy Resources Technology, Transactions of the ASME, 2002, 124, 67-75.	1.4	14
71	An Investigation of the Effect of Fuel-Air Mixedness on the Emissions from an HCCI Engine. , 2002, , .		9
72	A Computer Generated Reduced Iso-Octane Chemical Kinetic Mechanism Applied to Simulation of HCCI Combustion. , 2002, , .		10

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73	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
74	Numerical and experimental study of water/oil emulsified fuel combustion in a diesel engine. Fuel, 2002, 81, 2035-2044.	3.4	134
75	1.9-Liter Four-Cylinder HCCI Engine Operation with Exhaust Gas Recirculation. , 2001, , .		35
76	A Sequential Fluid-Mechanic Chemical-Kinetic Model of Propane HCCI Combustion. , 2001, , .		78
77	Equivalence Ratio-EGR Control of HCCI Engine Operation and the Potential for Transition to Spark-Ignited Operation. , 2001, , .		21
78	Use of an Extractive Laser Probe for Time-Resolved Mixture Fraction Measurements in a 9 ATM Gas Turbine Fuel Injector. , 2001, , .		1
79	Numerical analysis of a catalytic radiant burner: effect of catalyst on radiant efficiency and operability. Catalysis Today, 1999, 47, 253-262.	2.2	10
80	Fast Response Extraction Probe for Measurement of Air-Fuel Ratio Fluctuations in Lean Premixed Combustors. , 1999, , .		2
81	Measurement of Air-Fuel Ratio Fluctuations Caused by Combustor Driven Oscillations. , 1998, , .		12
82	An Experimental Study of Air-Reformed Natural Gas in Spark-Ignited Engines. , 1996, , .		13
83	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
84	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
85	Catalytic oxidation of natural gas over supported platinum: Flow reactor experiments and detailed numerical modeling. Proceedings of the Combustion Institute, 1996, 26, 1771-1778.	0.3	31
86	Catalytic Combustion of Natural Gas Over Supported Platinum: Flow Reactor Experiments and Detailed Numerical Modeling. , 1996, , .		2
87	A Perfectly-Stirred-Reaction Description of Chemistry in Turbulent Nonpremixed Combustion of Methane in Air. Combustion Science and Technology, 1992, 84, 45-50.	1.2	12
88	Autoignition of Dimethyl Ether and Dimethoxy Methane Sprays at High Pressures. , 0, , .		34
89	Emissions Performance of Oxygenate-in-Diesel Blends and Fischer-Tropsch Diesel in a Compression Ignition Engine. , 0, , .		36
90	Methylal and Methylal-Diesel Blended Fuels for Use in Compression-Ignition Engines. , 0, , .		73

#	ARTICLE	IF	CITATIONS
91	A Multi-Zone Model for Prediction of HCCI Combustion and Emissions. , 0, , .		260
92	HCCI in a CFR Engine: Experiments and Detailed Kinetic Modeling. , 0, , .		70
93	HCCI Engine Control by Thermal Management. , 0, , .		108
94	A Decoupled Model of Detailed Fluid Mechanics Followed by Detailed Chemical Kinetics for Prediction of Iso-Octane HCCI Combustion. , 0, , .		76
95	Emissions from a Cummins B5.9 Diesel Engine Fueled with Oxygenate-in-Diesel Blends. , 0, , .		9
96	HCCI Combustion: Analysis and Experiments. , 0, , .		65
97	Operation of a Four-Cylinder 1.9L Propane Fueled Homogeneous Charge Compression Ignition Engine: Basic Operating Characteristics and Cylinder-to-Cylinder Effects. , 0, , .		37
98	Current Research in HCCI Combustion at UC Berkeley and LLNL. , 0, , .		7
99	Isotopic Tracing of Bio-Derived Carbon from Ethanol-in-Diesel Blends in the Emissions of a Diesel Engine. , 0, , .		17
100	Piston-Liner Crevice Geometry Effect on HCCI Combustion by Multi-Zone Analysis. , 0, , .		55
101	The Effect of Oxygenates on Diesel Engine Particulate Matter. , 0, , .		81
102	Isotopic Tracing of Fuel Component Carbon in the Emissions From Diesel Engines. , 0, , .		9
103	Fuel and Additive Characterization for HCCI Combustion. , 0, , .		28
104	Isotopic Tracing of Fuel Carbon in the Emissions of a Compression-Ignition Engine Fueled with Biodiesel Blends. , 0, , .		18
105	Quantifying the contribution of lubrication oil carbon to particulate emissions from a diesel engine. , 0, , .		23
106	The Effect of the Di-Tertiary Butyl Peroxide (DTBP) additive on HCCI Combustion of Fuel Blends of Ethanol and Diethyl Ether. , 0, , .		35
107	Simulating a Homogeneous Charge Compression Ignition Engine Fuelled with a DEE/EtOH Blend. , 0, , .		32
108	Homogeneous Charge Compression Ignition (HCCI) Engine. SAE International Journal of Fuels and Lubricants, 0, 2, 817-826.	0.2	13

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109	Extending the Lean Stability Limits of Gasoline Using a Microwave-Assisted Spark Plug. , 0, , .		35
110	Maximizing Power Output in an Automotive Scale Multi-Cylinder Homogeneous Charge Compression Ignition (HCCI) Engine. , 0, , .		27
111	Characterization of Ion Signals under Ringing Conditions in an HCCI Engine. , 0, , .		8
112	Exploration of Heat Release in a Homogeneous Charge Compression Ignition Engine with Primary Reference Fuels. , 0, , .		25
113	Fuel-Dithering Optimization of Efficiency of TWC on Natural Gas IC Engine. SAE International Journal of Engines, 0, 8, 1246-1252.	0.4	18
114	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
115	Knock Prediction Using a Simple Model for Ignition Delay. , 0, , .		34
116	Î±-Pinene - A High Energy Density Biofuel for SI Engine Applications. , 0, , .		9
117	Experimental and Numerical Investigation of Ethanol/Diethyl Ether Mixtures in a CI Engine. , 0, , .		17
118	Application of Corona Discharge Ignition in a Boosted Direct-Injection Single Cylinder Gasoline Engine: Effects on Combustion Phasing, Fuel Consumption, and Emissions. SAE International Journal of Engines, 0, 9, 1970-1988.	0.4	35
119	Effect of Timing and Location of Hotspot on Super Knock during Pre-ignition. , 0, , .		12
120	Effectiveness of Fuel Enrichment on Knock Suppression in a Gasoline Spark-Ignited Engine. , 0, , .		12
121	Effect of Mixture Formation and Injection Strategies on Stochastic Pre-Ignition. , 0, , .		15
122	Pre-ignition Detection Followed by Immediate Damage Mitigation in a Spark-Ignited Engine. , 0, , .		0
123	Mechanism Triggering Pre-Ignition in a Turbo-Charged Engine. , 0, , .		13
124	Effect of Different Fluids on Injection Strategies to Suppress Pre-Ignition. , 0, , .		14
125	A Path towards High Efficiency Using Argon in an HCCI Engine. , 0, , .		17
126	Knock and Pre-Ignition Limits on Utilization of Ethanol in Octane-on-Demand Concept. , 0, , .		7

#	ARTICLE	IF	CITATIONS
127	Knock, Auto-Ignition and Pre-Ignition Tendency of Fuels for Advanced Combustion Engines (FACE) with Ethanol Blends and Similar RON. , 0, , .		5
128	On Maximizing Argon Engines' Performance via Subzero Intake Temperatures in HCCI Mode at High Compression Ratios. , 0, , .		6