

Hu Wang

List of Publications by Year in descending order

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79
papers

3,459
citations

201674
27
h-index

168389
53
g-index

79
all docs

79
docs citations

79
times ranked

1848
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental study of n-butanol additive and multi-injection on HD diesel engine performance and emissions. <i>Fuel</i> , 2010, 89, 2191-2201.	6.4	329
2	Development of an n-heptane-n-butanol-PAH mechanism and its application for combustion and soot prediction. <i>Combustion and Flame</i> , 2013, 160, 504-519.	5.2	201
3	Development of a Reduced Primary Reference Fuel Mechanism for Internal Combustion Engine Combustion Simulations. <i>Energy & Fuels</i> , 2013, 27, 7843-7853.	5.1	172
4	A reduced toluene reference fuel chemical kinetic mechanism for combustion and polycyclic-aromatic hydrocarbon predictions. <i>Combustion and Flame</i> , 2015, 162, 2390-2404.	5.2	171
5	Effects of diesel/PODE (polyoxymethylene dimethyl ethers) blends on combustion and emission characteristics in a heavy duty diesel engine. <i>Fuel</i> , 2016, 177, 206-216.	6.4	166
6	Development of a skeletal mechanism for diesel surrogate fuel by using a decoupling methodology. <i>Combustion and Flame</i> , 2015, 162, 3785-3802.	5.2	162
7	Experimental and simulation investigation of the combustion characteristics and emissions using n-butanol/biodiesel dual-fuel injection on a diesel engine. <i>Energy</i> , 2014, 74, 741-752.	8.8	140
8	Experimental study of RCCI combustion and load extension in a compression ignition engine fueled with gasoline and PODE. <i>Fuel</i> , 2016, 181, 878-886.	6.4	136
9	Development of a reduced n-dodecane-PAH mechanism and its application for n-dodecane soot predictions. <i>Fuel</i> , 2014, 136, 25-36.	6.4	111
10	Soot reduction effects of the addition of four butanol isomers on partially premixed flames of diesel surrogates. <i>Combustion and Flame</i> , 2017, 177, 123-136.	5.2	103
11	Laser diagnostics and chemical kinetic analysis of PAHs and soot in co-flow partially premixed flames using diesel surrogate and oxygenated additives of n-butanol and DMF. <i>Combustion and Flame</i> , 2018, 188, 129-141.	5.2	93
12	Development of a combined reduced primary reference fuel-alcohols (methanol/ethanol/propanols/butanols/n-pentanol) mechanism for engine applications. <i>Energy</i> , 2016, 114, 542-558.	8.8	90
13	Investigation on partially premixed combustion fueled with gasoline and PODE blends in a multi-cylinder heavy-duty diesel engine. <i>Fuel</i> , 2017, 193, 101-111.	6.4	73
14	Time-resolved spray, flame, soot quantitative measurement fueling n-butanol and soybean biodiesel in a constant volume chamber under various ambient temperatures. <i>Fuel</i> , 2014, 133, 317-325.	6.4	70
15	Development of an n-heptane/toluene/polyaromatic hydrocarbon mechanism and its application for combustion and soot prediction. <i>International Journal of Engine Research</i> , 2013, 14, 434-451.	2.3	59
16	Development of a reduced toluene reference fuel (TRF)-2,5-dimethylfuran-polycyclic aromatic hydrocarbon (PAH) mechanism for engine applications. <i>Combustion and Flame</i> , 2016, 165, 453-465.	5.2	58
17	Effect of combustion regime on in-cylinder heat transfer in internal combustion engines. <i>International Journal of Engine Research</i> , 2016, 17, 331-346.	2.3	51
18	Isobutanol as Both Low Reactivity and High Reactivity Fuels with Addition of Di-Tert Butyl Peroxide (DTBP) in RCCI Combustion. <i>SAE International Journal of Fuels and Lubricants</i> , 0, 8, 329-343.	0.2	47

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19	Numerical Study of RCCI and HCCI Combustion Processes Using Gasoline, Diesel, iso-Butanol and DTBP Cetane Improver. SAE International Journal of Engines, 0, 8, 831-845.	0.4	45
20	Experimental and modelling investigations of the diesel surrogate fuels in direct injection compression ignition combustion. Applied Energy, 2017, 189, 187-200.	10.1	44
21	Numerical simulation of cyclic variability in reactivity-controlled compression ignition combustion with a focus on the initial temperature at intake valve closing. International Journal of Engine Research, 2015, 16, 441-460.	2.3	43
22	A numerical investigation of the combustion kinetics of reactivity controlled compression ignition (RCCI) combustion in an optical engine. Fuel, 2019, 241, 753-766.	6.4	42
23	Kinetic and Numerical Study on the Effects of Di- <i>tert</i> -butyl Peroxide Additive on the Reactivity of Methanol and Ethanol. Energy & Fuels, 2014, 28, 5480-5488.	5.1	41
24	Numerical Study of the RCCI Combustion Processes Fuelled with Methanol, Ethanol, n-Butanol and Diesel. , 0, , .		40
25	A numerical study of spray/wall impingement based on droplet impact phenomenon. International Journal of Heat and Mass Transfer, 2017, 112, 401-412.	4.8	40
26	The effect of combustion chamber geometry on in-cylinder flow and combustion process in a stoichiometric operation natural gas engine with EGR. Applied Thermal Engineering, 2018, 129, 199-211.	6.0	39
27	Effects of late intake valve closing (LIVC) and rebreathing valve strategies on diesel engine performance and emissions at low loads. Applied Thermal Engineering, 2016, 98, 310-319.	6.0	37
28	Experimental and numerical investigation of the effects of combustion chamber reentrant level on combustion characteristics and thermal efficiency of stoichiometric operation natural gas engine with EGR. Applied Thermal Engineering, 2017, 123, 1473-1483.	6.0	34
29	Effects of injection strategies on low-speed marine engines using the dual fuel of high-pressure direct-injection natural gas and diesel. Energy Science and Engineering, 2019, 7, 1994-2010.	4.0	34
30	Experimental investigations of gasoline partially premixed combustion with an exhaust rebreathing valve strategy at low loads. Applied Thermal Engineering, 2016, 103, 832-841.	6.0	32
31	Improvement of high load performance in gasoline compression ignition engine with PODE and multiple-injection strategy. Fuel, 2018, 234, 1459-1468.	6.4	32
32	Spray characteristics of gasoline/PODE and diesel/PODE blends in a constant volume chamber. Applied Thermal Engineering, 2019, 159, 113850.	6.0	29
33	Numerical investigation on the combustion characteristics of PODE3/gasoline RCCI and high load extension. Fuel, 2020, 263, 116366.	6.4	29
34	The effects of DI fuel properties on the combustion and emissions characteristics of RCCI combustion. Fuel, 2018, 227, 457-468.	6.4	28
35	Thermal efficiency improvement of PODE/Gasoline dual-fuel RCCI high load operation with EGR and air dilution. Applied Thermal Engineering, 2019, 159, 113763.	6.0	26
36	A theoretical study on the effects of thermal barrier coating on diesel engine combustion and emission characteristics. Energy, 2018, 162, 744-752.	8.8	25

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37	Analysis of near wall combustion and pollutant migration after spray impingement. International Journal of Heat and Mass Transfer, 2019, 141, 569-579.	4.8	24
38	Experimental and Modeling Investigations on Soot Formation of Ethanol, <i>n</i> -Butanol, 2,5-Dimethylfuran, and Biodiesel in Diesel Engines. Energy & Fuels, 2017, 31, 12108-12119.	5.1	22
39	A numerical study on the chemical kinetics process during auto-ignition of <i>n</i> -heptane in a direct injection compression ignition engine. Applied Energy, 2018, 212, 909-918.	10.1	22
40	Numerical investigation on the combustion and emission characteristics of a heavy-duty natural gas-diesel dual-fuel engine. Fuel, 2021, 300, 120998.	6.4	22
41	Experimental and Numerical Investigation on Soot Behavior of Soybean Biodiesel under Ambient Oxygen Dilution in Conventional and Low-Temperature Flames. Energy & Fuels, 2014, 28, 2663-2676.	5.1	21
42	An Experimental and Numerical Study on the Effects of Fuel Properties on the Combustion and Emissions of Low-Temperature Combustion Diesel Engines. Combustion Science and Technology, 2014, 186, 1795-1815.	2.3	21
43	Investigation on the dual-fuel active-thermal atmosphere combustion strategy based on optical diagnostics and numerical simulations. Fuel, 2020, 276, 118023.	6.4	21
44	Experimental and numerical studies on three gasoline surrogates applied in gasoline compression ignition (GCI) mode. Applied Energy, 2017, 192, 59-70.	10.1	20
45	Comparison of Diesel Combustion CFD Models and Evaluation of the Effects of Model Constants. , 0, , .		18
46	Experimental Study on High-Load Extension of Gasoline/PODE Dual-Fuel RCCI Operation Using Late Intake Valve Closing. SAE International Journal of Engines, 0, 10, 1482-1490.	0.4	18
47	An Investigation of the Influence of Gas Injection Rate Shape on High-Pressure Direct-Injection Natural Gas Marine Engines. Energies, 2019, 12, 2571.	3.1	18
48	A Numerical Investigation on the Chemical Kinetics Process of a Reacting <i>n</i> -Dodecane Spray Flame under Compression Ignition Combustion Condition. Energy & Fuels, 2019, 33, 11899-11912.	5.1	18
49	A comparative numerical investigation of reactivity controlled compression ignition combustion using Large Eddy Simulation and Reynolds-Averaged Navier-Stokes approaches. Fuel, 2019, 257, 116023.	6.4	18
50	Numerical investigation of reactivity controlled compression ignition (RCCI) using different multi-component surrogate combinations of diesel and gasoline. Applied Energy, 2019, 242, 462-479.	10.1	18
51	Numerical investigation on combustion system optimization of stoichiometric operation natural gas engine based on knocking boundary extension. Fuel, 2021, 290, 120092.	6.4	18
52	Investigation of the chemical kinetics process of diesel combustion in a compression ignition engine using the large eddy simulation approach. Fuel, 2020, 270, 117544.	6.4	17
53	Effects of flame propagation speed on knocking and knock-limited combustion in a downsized spark ignition engine. Fuel, 2021, 293, 120407.	6.4	17
54	The Potential of High-load Extension by Using Late Intake Valve Closing for a Diesel Premixed Charge Compression Ignition (PCCI) Engine. Energy Procedia, 2015, 66, 33-36.	1.8	16

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55	Experimental study on the partially premixed combustion (PPC) fueled with n-butanol. Fuel, 2019, 257, 116000.	6.4	16
56	Construction of Skeletal Oxidation Mechanisms for the Saturated Fatty Acid Methyl Esters from Methyl Butanoate to Methyl Palmitate. Energy & Fuels, 2015, 29, 1076-1089.	5.1	15
57	Kinetic Study of the Ignition Process of Methane/ <i>n</i> -Heptane Fuel Blends under High-Pressure Direct-Injection Natural Gas Engine Conditions. Energy & Fuels, 2020, 34, 14796-14813.	5.1	15
58	Development of a simplified n-heptane/methane model for high-pressure direct-injection natural gas marine engines. Frontiers in Energy, 2021, 15, 405-420.	2.3	14
59	A Numerical Study on Combustion and Emission Characteristics of Marine Engine through Miller Cycle Coupled with EGR and Water Emulsified Fuel. , 0, , .		13
60	Investigation of the Combustion Kinetics Process in a High-Pressure Direct Injection Natural Gas Marine Engine. Energy & Fuels, 2021, 35, 6785-6797.	5.1	13
61	Development of a reduced primary reference fuel-PODE3-methanol-ethanol-n-butanol mechanism for dual-fuel engine simulations. Energy, 2021, 235, 121439.	8.8	13
62	Reaction Mechanisms and HCCI Combustion Processes of Mixtures of n-Heptane and the Butanols. Frontiers in Mechanical Engineering, 2015, 1, .	1.8	12
63	Experimental and Modelling Investigations of the Gasoline Compression Ignition Combustion in Diesel Engine. , 2017, , .		12
64	Numerical investigation on low octane gasoline-like fuel compression ignition combustion at high load. Fuel, 2020, 270, 117532.	6.4	12
65	Effects of low-temperature reforming products of PRF50 on combustion and emission characteristics in an HCCI engine. Applied Thermal Engineering, 2019, 151, 451-458.	6.0	11
66	Thermodynamic modeling of trans/supercritical fuel sprays in internal combustion engines based on a generalized cubic equation of state. Fuel, 2022, 307, 121894.	6.4	11
67	Effects of Pilot Injection Strategy on Combustion and Emission Characteristics in Gasoline Compression Ignition. Energy Procedia, 2017, 142, 1267-1273.	1.8	10
68	Experimental and kinetic modeling studies of polyoxymethylene dimethyl ether (PODE) pyrolysis in jet stirred reactor. Journal of Analytical and Applied Pyrolysis, 2021, 159, 105332.	5.5	10
69	Influence of thermal barrier coating on partially premixed combustion in internal combustion engine. Fuel, 2021, 303, 121259.	6.4	9
70	Improved Chemical Kinetics Numerics for the Efficient Simulation of Advanced Combustion Strategies. SAE International Journal of Engines, 0, 7, 243-255.	0.4	8
71	Effects of charge motion on knocking combustion under boosted high load condition of a medium-duty gasoline engine. Fuel, 2022, 326, 125040.	6.4	8
72	Effects of Different Turbocharging Systems on Performance in a HD Diesel Engine with Different Emission Control Technical Routes. , 2016, , .		7

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73	A comparison study on the combustion and sooting characteristics of base engine oil and n-dodecane in laminar diffusion flames. Applied Thermal Engineering, 2019, 158, 113812.	6.0	7
74	Combustion Mode Design with High Efficiency and Low Emissions Controlled by Mixtures Stratification and Fuel Reactivity. Frontiers in Mechanical Engineering, 2015, 1, .	1.8	6
75	A theoretical investigation of the effects of temperature, pressure, and equivalence ratio on the oxidation and reformed products of PRF90 under the flexible cylinder engine mode. Applied Thermal Engineering, 2018, 137, 513-520.	6.0	5
76	Effects of scavenging port angle and combustion chamber geometry on combustion and emission of a high-pressure direct-injection natural gas marine engine. International Journal of Green Energy, 2023, 20, 616-628.	3.8	4
77	Prediction Accuracy and Efficiency of the <i>n</i> -Heptane Mechanism at Different Reduction Levels. Energy & Fuels, 2016, 30, 6822-6827.	5.1	3
78	Combined effects of fuel reactivity and intake thermodynamic conditions on heat release and emissions of compression ignition combustion. Fuel, 2020, 282, 118859.	6.4	3
79	Study on the influence mechanism of mixture stratification on GCI combustion and the compound injection strategy under high load operation. Energy Science and Engineering, 2021, 9, 2434.	4.0	1