Peng Zhao

List of Publications by Year
in descending order

58 papers	1,320 citations	394286 19 h-index	377752 34 g-index
58 all docs	58 docs citations	58 times ranked	929 citing authors

#	Article	IF	Citations
1	Initiation and propagation of one-dimensional planar flames in mixtures with variable reaction progress. Combustion and Flame, 2022, 236, 111765.	2.8	4
2	Mitigating battery thermal runaway through mild combustion. Chemical Engineering Journal Advances, 2022, 9, 100208.	2.4	8
3	Initiation and propagation of curved reaction front in solids: Insights into solid combustion and battery thermal runaway. Combustion and Flame, 2022, 238, 111951.	2.8	10
4	Effects of face shield on an emitter during a cough process: A large-eddy simulation study. Science of the Total Environment, 2022, 831, 154856.	3.9	3
5	Thermal-pyrolysis induced over-driven flame and its potential role in the negative-temperature dependence of iso-octane flame speed at elevated temperatures. Combustion and Flame, 2021, 223, 65-76.	2.8	6
6	On the prediction of hot spot induced ignition by the Livengood-Wu integral. Proceedings of the Combustion Institute, 2021, 38, 4709-4716.	2.4	4
7	Two-stage autoignition and combustion mode evolution in boundary layer flows above a cold flat plate. Proceedings of the Combustion Institute, 2021, 38, 767-776.	2.4	5
8	Minimum ignition energy and propagation dynamics of laminar premixed cool flames. Proceedings of the Combustion Institute, 2021, 38, 2315-2322.	2.4	10
9	CFD-guided development of a pre-chamber ignition system for internal combustion engines. International Journal of Powertrains, 2021, 10, 79.	0.1	1
10	Comparison of the effect of linear and two-step fast charging protocols on degradation of lithium ion batteries. Energy, 2021, 227, 120417.	4.5	11
11	Theoretical and numerical analysis for thermal runaway propagation within a single cell. International Journal of Heat and Mass Transfer, 2021, 181, 121901.	2.5	10
12	CFD Optimization of the Pre-Chamber Geometry for a Gasoline Spark Ignition Engine. Frontiers in Mechanical Engineering, 2021, 6, .	0.8	12
13	Statistical Analysis on Rate Parameters of the H2â€“O2 Reaction System. Journal of Physical Chemistry A, 2021, 125, 10223-10234.	1.1	3
14	Fuel wall film effects on premixed flame propagation, quenching and emission. International Journal of Engine Research, 2020, 21, 1055-1066.	1.4	16
15	Computational identification of the safety regime of Li-ion battery thermal runaway. Applied Energy, 2020, 261, 114440.	5.1	59
16	Direct numerical simulation of low temperature reactions affecting n-dodecane spray autoignition. Fuel, 2020, 280, 118453.	3.4	6
17	Auto-Ignition and Reaction Front Dynamics in Mixtures With Temperature and Concentration Stratification. Frontiers in Mechanical Engineering, 2020, 6, .	0.8	4
18	Evaluation of non-ideal piston stopping effects on the â€œadiabatic coreâ€•and ignition delay time simulation in rapid compression machines. Combustion and Flame, 2020, 218, 229-233.	2.8	3

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19	Further study on wall film effects and flame quenching under engine thermodynamic conditions. Combustion and Flame, 2020, 216, 100-110.	2.8	9
20	Kinetic modeling of ignition in miniature shock tube. Proceedings of the Combustion Institute, 2019, 37, 593-601.	2.4	5
21	Toward computational singular perturbation (CSP) without eigen-decomposition. Combustion and Flame, 2019, 209, 63-73.	2.8	6
22	Fast charging optimization for lithium-ion batteries based on dynamic programming algorithm and electrochemical-thermal-capacity fade coupled model. Journal of Power Sources, 2019, 438, 227015.	4.0	79
23	reactingFoam-SCI: An open source CFD platform for reacting flow simulation. Computers and Fluids, 2019, 190, 114-127.	1.3	37
24	Insights into engine autoignition: Combining engine thermodynamic trajectory and fuel ignition delay iso-contour. Combustion and Flame, 2019, 200, 207-218.	2.8	29
25	CFD Simulation of a Premixed Spark Injection Hydrogen Engine. , 2019, , .		1
26	On the Interpretation and Correlation of Highâ€Temperature Ignition Delays in Reactors with Varying Thermodynamic Conditions. International Journal of Chemical Kinetics, 2018, 50, 410-424.	1.0	9
27	Detailed Kinetics in Combustion Simulation: Manifestation, Model Reduction, and Computational Diagnostics. Energy, Environment, and Sustainability, 2018, , 45-71.	0.6	2
28	Manifestation of octane rating, fuel sensitivity, and composition effects for gasoline surrogates under advanced compression ignition conditions. Combustion and Flame, 2018, 192, 238-249.	2.8	22
29	Conductive Heating of Li-Ion Batteries at Low Temperatures. , 2018, , .		1
30	A Comprehensive Ignition System Model for Spark Ignition Engines. , 2018, , .		4
31	Numerical Simulation of Ignition Mechanism in the Main Chamber of Turbulent Jet Ignition System. , 2018, , .		19
32	Characterization of the Ionic Liquid/Electrode Interfacial Relaxation Processes Under Potential Polarization for Ionic Liquid Amperometric Gas Sensor Method Development. ACS Sensors, 2018, 3, 1126-1134.	4.0	8
33	Laminar flame propagation and nonpremixed stagnation ignition of toluene and xylenes. Proceedings of the Combustion Institute, 2017, 36, 479-489.	2.4	24
34	On the crossover temperature and lower turnover state in the NTC regime. Proceedings of the Combustion Institute, 2017, 36, 343-353.	2.4	29
35	An alternative approach to accommodate detailed ignition chemistry in combustion simulation. Combustion and Flame, 2017, 176, 400-408.	2.8	15
36	A kinetic modeling study on octane rating and fuel sensitivity in advanced compression ignition engines. Combustion and Flame, 2017, 185, 234-244.	2.8	22

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37	A 1-D Platform to Simulate the Effects of Dedicated EGR on SI Engine Combustion. , 2017, , .		3
38	Flame dynamics in oscillating flows under autoignitive conditions. Combustion and Flame, 2016, 168, 75-82.	2.8	9
39	The role of low temperature chemistry in combustion mode development under elevated pressures. Combustion and Flame, 2016, 174, 179-193.	2.8	106
40	Initiation and propagation of laminar premixed cool flames. Fuel, 2016, 166, 477-487.	3.4	88
41	A predictive Livengoodâ€“Wu correlation for two-stage ignition. International Journal of Engine Research, 2016, 17, 825-835.	1.4	44
42	Interactions of flame propagation, auto-ignition and pressure wave during knocking combustion. Combustion and Flame, 2016, 164, 319-328.	2.8	62
43	On the controlling mechanism of the upper turnover states in the NTC regime. Combustion and Flame, 2016, 164, 294-302.	2.8	42
44	Stabilization of laminar nonpremixed DME/air coflow flames at elevated temperatures and pressures. Combustion and Flame, 2015, 162, 4471-4478.	2.8	49
45	On the application of betweenness centrality in chemical network analysis: Computational diagnostics and model reduction. Combustion and Flame, 2015, 162, 2991-2998.	2.8	29
46	Autoignition-affected stabilization of laminar nonpremixed DME/air coflow flames. Combustion and Flame, 2015, 162, 3437-3445.	2.8	55
47	Laminar flame speeds, counterflow ignition, and kinetic modeling of the butene isomers. Proceedings of the Combustion Institute, 2015, 35, 309-316.	2.4	53
48	Finite analytic numerical method for solving twoâ€dimensional quasiâ€Laplace equation. Numerical Methods for Partial Differential Equations, 2014, 30, 1755-1769.	2.0	7
49	NTC-affected ignition and low-temperature flames in nonpremixed DME/air counterflow. Combustion and Flame, 2014, 161, 1993-1997.	2.8	55
50	The role of global and detailed kinetics in the first-stage ignition delay in NTC-affected phenomena. Combustion and Flame, 2013, 160, 2352-2358.	2.8	111
51	NTC-affected ignition in nonpremixed counterflow. Combustion and Flame, 2012, 159, 1044-1054.	2.8	77
52	Dilution, Thermal and Chemical Effects of Carbon Dioxide on n-heptane Two-Stage Auto-Ignition Process. , 0, , .		9
53	A Computational Study on the Critical Ignition Energy and Chemical Kinetic Feature for Li-Ion Battery Thermal Runaway. , 0, , .		6
54	Numerical Investigation of the Spark Plug Orientation Effects on Flame Kernel Growth. , 0, , .		6

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55	A Computational Study on Laminar Flame Propagation in Mixtures with Non-Zero Reaction Progress. , 0, , .		4
56	Prediction of Autoignition and Flame Properties for Multicomponent Fuels Using Machine Learning Techniques. , 0, , .		8
57	A Two-Layer Soot Model for Hydrocarbon Fuel Combustion. , 0, , .		0
58	Effects of stratification and charge cooling on combustion in a gasoline direct-injection compression ignition (GDCI) engine. International Journal of Engine Research, 0, , 146808742210773.	1.4	1