

Peng Zhao

List of Publications by Year in descending order

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Version: 2024-02-01

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	The role of global and detailed kinetics in the first-stage ignition delay in NTC-affected phenomena. <i>Combustion and Flame</i> , 2013, 160, 2352-2358.	2.8	111
2	The role of low temperature chemistry in combustion mode development under elevated pressures. <i>Combustion and Flame</i> , 2016, 174, 179-193.	2.8	106
3	Initiation and propagation of laminar premixed cool flames. <i>Fuel</i> , 2016, 166, 477-487.	3.4	88
4	Fast charging optimization for lithium-ion batteries based on dynamic programming algorithm and electrochemical-thermal-capacity fade coupled model. <i>Journal of Power Sources</i> , 2019, 438, 227015.	4.0	79
5	NTC-affected ignition in nonpremixed counterflow. <i>Combustion and Flame</i> , 2012, 159, 1044-1054.	2.8	77
6	Interactions of flame propagation, auto-ignition and pressure wave during knocking combustion. <i>Combustion and Flame</i> , 2016, 164, 319-328.	2.8	62
7	Computational identification of the safety regime of Li-ion battery thermal runaway. <i>Applied Energy</i> , 2020, 261, 114440.	5.1	59
8	NTC-affected ignition and low-temperature flames in nonpremixed DME/air counterflow. <i>Combustion and Flame</i> , 2014, 161, 1993-1997.	2.8	55
9	Autoignition-affected stabilization of laminar nonpremixed DME/air coflow flames. <i>Combustion and Flame</i> , 2015, 162, 3437-3445.	2.8	55
10	Laminar flame speeds, counterflow ignition, and kinetic modeling of the butene isomers. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 309-316.	2.4	53
11	Stabilization of laminar nonpremixed DME/air coflow flames at elevated temperatures and pressures. <i>Combustion and Flame</i> , 2015, 162, 4471-4478.	2.8	49
12	A predictive Livengood-Wu correlation for two-stage ignition. <i>International Journal of Engine Research</i> , 2016, 17, 825-835.	1.4	44
13	On the controlling mechanism of the upper turnover states in the NTC regime. <i>Combustion and Flame</i> , 2016, 164, 294-302.	2.8	42
14	reactingFoam-SCI: An open source CFD platform for reacting flow simulation. <i>Computers and Fluids</i> , 2019, 190, 114-127.	1.3	37
15	On the application of betweenness centrality in chemical network analysis: Computational diagnostics and model reduction. <i>Combustion and Flame</i> , 2015, 162, 2991-2998.	2.8	29
16	On the crossover temperature and lower turnover state in the NTC regime. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 343-353.	2.4	29
17	Insights into engine autoignition: Combining engine thermodynamic trajectory and fuel ignition delay iso-contour. <i>Combustion and Flame</i> , 2019, 200, 207-218.	2.8	29
18	Laminar flame propagation and nonpremixed stagnation ignition of toluene and xylenes. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 479-489.	2.4	24

#	ARTICLE	IF	CITATIONS
19	A kinetic modeling study on octane rating and fuel sensitivity in advanced compression ignition engines. <i>Combustion and Flame</i> , 2017, 185, 234-244.	2.8	22
20	Manifestation of octane rating, fuel sensitivity, and composition effects for gasoline surrogates under advanced compression ignition conditions. <i>Combustion and Flame</i> , 2018, 192, 238-249.	2.8	22
21	Numerical Simulation of Ignition Mechanism in the Main Chamber of Turbulent Jet Ignition System. , 2018, , .		19
22	Fuel wall film effects on premixed flame propagation, quenching and emission. <i>International Journal of Engine Research</i> , 2020, 21, 1055-1066.	1.4	16
23	An alternative approach to accommodate detailed ignition chemistry in combustion simulation. <i>Combustion and Flame</i> , 2017, 176, 400-408.	2.8	15
24	CFD Optimization of the Pre-Chamber Geometry for a Gasoline Spark Ignition Engine. <i>Frontiers in Mechanical Engineering</i> , 2021, 6, .	0.8	12
25	Comparison of the effect of linear and two-step fast charging protocols on degradation of lithium ion batteries. <i>Energy</i> , 2021, 227, 120417.	4.5	11
26	Minimum ignition energy and propagation dynamics of laminar premixed cool flames. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 2315-2322.	2.4	10
27	Theoretical and numerical analysis for thermal runaway propagation within a single cell. <i>International Journal of Heat and Mass Transfer</i> , 2021, 181, 121901.	2.5	10
28	Initiation and propagation of curved reaction front in solids: Insights into solid combustion and battery thermal runaway. <i>Combustion and Flame</i> , 2022, 238, 111951.	2.8	10
29	Dilution, Thermal and Chemical Effects of Carbon Dioxide on n-heptane Two-Stage Auto-Ignition Process. , 0, , .		9
30	Flame dynamics in oscillating flows under autoignitive conditions. <i>Combustion and Flame</i> , 2016, 168, 75-82.	2.8	9
31	On the Interpretation and Correlation of High-Temperature Ignition Delays in Reactors with Varying Thermodynamic Conditions. <i>International Journal of Chemical Kinetics</i> , 2018, 50, 410-424.	1.0	9
32	Further study on wall film effects and flame quenching under engine thermodynamic conditions. <i>Combustion and Flame</i> , 2020, 216, 100-110.	2.8	9
33	Characterization of the Ionic Liquid/Electrode Interfacial Relaxation Processes Under Potential Polarization for Ionic Liquid Amperometric Gas Sensor Method Development. <i>ACS Sensors</i> , 2018, 3, 1126-1134.	4.0	8
34	Prediction of Autoignition and Flame Properties for Multicomponent Fuels Using Machine Learning Techniques. , 0, , .		8
35	Mitigating battery thermal runaway through mild combustion. <i>Chemical Engineering Journal Advances</i> , 2022, 9, 100208.	2.4	8
36	Finite analytic numerical method for solving two-dimensional quasi-Laplace equation. <i>Numerical Methods for Partial Differential Equations</i> , 2014, 30, 1755-1769.	2.0	7

#	ARTICLE	IF	CITATIONS
37	A Computational Study on the Critical Ignition Energy and Chemical Kinetic Feature for Li-Ion Battery Thermal Runaway. , 0, , .		6
38	Toward computational singular perturbation (CSP) without eigen-decomposition. Combustion and Flame, 2019, 209, 63-73.	2.8	6
39	Direct numerical simulation of low temperature reactions affecting n-dodecane spray autoignition. Fuel, 2020, 280, 118453.	3.4	6
40	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
41	Numerical Investigation of the Spark Plug Orientation Effects on Flame Kernel Growth. , 0, , .		6
42	Kinetic modeling of ignition in miniature shock tube. Proceedings of the Combustion Institute, 2019, 37, 593-601.	2.4	5
43	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
44	A Comprehensive Ignition System Model for Spark Ignition Engines. , 2018, , .		4
45	Auto-Ignition and Reaction Front Dynamics in Mixtures With Temperature and Concentration Stratification. Frontiers in Mechanical Engineering, 2020, 6, .	0.8	4
46	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
47	A Computational Study on Laminar Flame Propagation in Mixtures with Non-Zero Reaction Progress. , 0, , .		4
48	Initiation and propagation of one-dimensional planar flames in mixtures with variable reaction progress. Combustion and Flame, 2022, 236, 111765.	2.8	4
49	A 1-D Platform to Simulate the Effects of Dedicated EGR on SI Engine Combustion. , 2017, , .		3
50	Evaluation of non-ideal piston stopping effects on the "adiabatic core" and ignition delay time simulation in rapid compression machines. Combustion and Flame, 2020, 218, 229-233.	2.8	3
51	Statistical Analysis on Rate Parameters of the H ₂ -O ₂ Reaction System. Journal of Physical Chemistry A, 2021, 125, 10223-10234.	1.1	3
52	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
53	Detailed Kinetics in Combustion Simulation: Manifestation, Model Reduction, and Computational Diagnostics. Energy, Environment, and Sustainability, 2018, , 45-71.	0.6	2
54	Conductive Heating of Li-Ion Batteries at Low Temperatures. , 2018, , .		1

#	ARTICLE	IF	CITATIONS
55	CFD-guided development of a pre-chamber ignition system for internal combustion engines. International Journal of Powertrains, 2021, 10, 79.	0.1	1
56	CFD Simulation of a Premixed Spark Injection Hydrogen Engine. , 2019, , .		1
57	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
58	A Two-Layer Soot Model for Hydrocarbon Fuel Combustion. , 0, , .		0