Liming Cai

List of Publications by Year
in descending order

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29 papers	1,396 citations	430754 18 h-index	477173 29 g-index
29 all docs	29 docs citations	29 times ranked	1019 citing authors

#	Article	IF	Citations
1	A Methane Mechanism for Oxy-Fuel Combustion: Extinction Experiments, Model Validation, and Kinetic Analysis. Flow, Turbulence and Combustion, 2021, 106, 499-514.	1.4	5
2	A property database of fuel compounds with emphasis on spark-ignition engine applications. Applications in Energy and Combustion Science, 2021, 5, 100018.	0.9	17
3	Iterative model-based experimental design for efficient uncertainty minimization of chemical mechanisms. Proceedings of the Combustion Institute, 2021, 38, 1033-1042.	2.4	11
4	Oxymethylene ether â€“ n-dodecane blend spray combustion: Experimental study and large-eddy simulations. Proceedings of the Combustion Institute, 2021, 38, 3417-3425.	2.4	16
5	Higher Alcohol and Ether Biofuels for Compression-Ignition Engine Application: A Review with Emphasis on Combustion Kinetics. Energy & Fuels, 2021, 35, 1890-1917.	2.5	42
6	Exploring the fuel structure dependence of laminar burning velocity: A machine learning based group contribution approach. Combustion and Flame, 2021, 232, 111525.	2.8	28
7	Investigating the impacts of thermochemical group additivity values on kinetic model predictions through sensitivity and uncertainty analyses. Combustion and Flame, 2020, 213, 394-408.	2.8	23
8	Laminar premixed and non-premixed flame investigation on the influence of dimethyl ether addition on n-heptane combustion. Combustion and Flame, 2020, 212, 323-336.	2.8	28
9	Auto-ignition of oxymethylene ethers (OMEn, nÂ=Â2â€“4) as promising synthetic e-fuels from renewable electricity: shock tube experiments and automatic mechanism generation. Fuel, 2020, 264, 116711.	3.4	75
10	Using machine learning with target-specific feature sets for structure-property relationship modeling of octane numbers and octane sensitivity. Fuel, 2020, 281, 118772.	3.4	31
11	Validation of a RANS 3D-CFD Gaseous Emission Model with Space-, Species-, and Cycle-Resolved Measurements from an SI DI Engine. Energies, 2020, 13, 4287.	1.6	9
12	Experimental comparison of combustion and emission characteristics between a market gasoline and its surrogate. Combustion and Flame, 2020, 214, 306-322.	2.8	19
13	Sensitivity analysis, uncertainty quantification, and optimization for thermochemical properties in chemical kinetic combustion models. Proceedings of the Combustion Institute, 2019, 37, 771-779.	2.4	41
14	Impact of thermochemistry on optimized kinetic model predictions: Auto-ignition of diethyl ether. Combustion and Flame, 2019, 210, 454-466.	2.8	32
15	Exploring the combustion chemistry of a novel lignocellulose-derived biofuel: cyclopentanol. Part I: quantum chemistry calculation and kinetic modeling. Combustion and Flame, 2019, 210, 490-501.	2.8	17
16	Exploring the combustion chemistry of a novel lignocellulose-derived biofuel: cyclopentanol. Part II: experiment, model validation, and functional group analysis. Combustion and Flame, 2019, 210, 134-144.	2.8	16
17	The C5 chemistry preceding the formation of polycyclic aromatic hydrocarbons in a premixed 1-pentene flame. Combustion and Flame, 2019, 206, 411-423.	2.8	23
18	Laminar flow reactor experiments for ignition delay time and species measurements at low temperatures: Linear alkanes and dimethyl ether. Combustion and Flame, 2019, 202, 347-361.	2.8	10

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19	Impact of exhaust gas recirculation on ignition delay times of gasoline fuel: An experimental and modeling study. Proceedings of the Combustion Institute, 2019, 37, 639-647.	2.4	69
20	Oxidation of 2-methylfuran and 2-methylfuran/n-heptane blends: An experimental and modeling study. Combustion and Flame, 2018, 196, 54-70.	2.8	32
21	Experimental Design for Discrimination of Chemical Kinetic Models for Oxy-Methane Combustion. Energy & Fuels, 2017, 31, 5533-5542.	2.5	17
22	Optimized reaction mechanism rate rules for ignition of normal alkanes. Combustion and Flame, 2016, 173, 468-482.	2.8	121
23	Di-n-buthylether, n-octanol, and n-octane as fuel candidates for diesel engine combustion. Combustion and Flame, 2016, 163, 66-78.	2.8	79
24	A numerical study of highly-diluted, burner-stabilised dimethyl etherÂflames. Combustion Theory and Modelling, 2015, 19, 238-259.	1.0	6
25	Optimized chemical mechanism for combustion of gasoline surrogate fuels. Combustion and Flame, 2015, 162, 1623-1637.	2.8	276
26	Ignition characteristics of a bio-derived class of saturated and unsaturated furans for engine applications. Proceedings of the Combustion Institute, 2015, 35, 2957-2965.	2.4	77
27	An experimental and modeling study of n -octanol combustion. Proceedings of the Combustion Institute, 2015, 35, 419-427.	2.4	94
28	Chemical kinetic study of a novel lignocellulosic biofuel: Di-n-butyl ether oxidation in a laminar flow reactor and flames. Combustion and Flame, 2014, 161, 798-809.	2.8	85
29	Mechanism optimization based on reaction rate rules. Combustion and Flame, 2014, 161, 405-415.	2.8	97