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List of Publications by Year in descending order

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85 papers	6,486 citations	81900 39 h-index	85541 71 g-index
89 all docs	89 docs citations	89 times ranked	2572 citing authors

#	Article	IF	Citations
1	Kinetic modeling of gasoline surrogate components and mixtures under engine conditions. Proceedings of the Combustion Institute, 2011, 33, 193-200.	3.9	921
2	Comprehensive chemical kinetic modeling of the oxidation of 2-methylalkanes from C7 to C20. Combustion and Flame, 2011, 158, 2338-2357.	5.2	466
3	A comprehensive chemical kinetic combustion model for the four butanol isomers. Combustion and Flame, 2012, 159, 2028-2055.	5.2	463
4	The chemistry of chemical recycling of solid plastic waste via pyrolysis and gasification: State-of-the-art, challenges, and future directions. Progress in Energy and Combustion Science, 2021, 84, 100901.	31.2	297
5	An Approach for Formulating Surrogates for Gasoline with Application toward a Reduced Surrogate Mechanism for CFD Engine Modeling. Energy & Fuels, 2011, 25, 5215-5223.	5.1	252
6	Detailed chemical kinetic reaction mechanisms for soy and rapeseed biodiesel fuels. Combustion and Flame, 2011, 158, 742-755.	5.2	238
7	Compositional effects on the ignition of FACE gasolines. Combustion and Flame, 2016, 169, 171-193.	5.2	174
8	A comprehensive iso-octane combustion model with improved thermochemistry and chemical kinetics. Combustion and Flame, 2017, 178, 111-134.	5.2	164
9	Ignition of alkane-rich FACE gasoline fuels and their surrogate mixtures. Proceedings of the Combustion Institute, 2015, 35, 249-257.	3.9	138
10	Oxidation and combustion of the n-hexene isomers: A wide range kinetic modeling study. Combustion and Flame, 2008, 155, 756-772.	5.2	131
11	Experimental and surrogate modeling study of gasoline ignition in a rapid compression machine. Combustion and Flame, 2012, 159, 3066-3078.	5.2	128
12	An experimental and modeling study of shock tube and rapid compression machine ignition of n-butylbenzene/air mixtures. Combustion and Flame, 2014, 161, 49-64.	5.2	126
13	Autoignition behavior of unsaturated hydrocarbons in the low and high temperature regions. Proceedings of the Combustion Institute, 2011, 33, 201-208.	3.9	119
14	Detailed Chemistry Promotes Understanding of Octane Numbers and Gasoline Sensitivity. Energy & Fuels, 2006, 20, 2391-2398.	5.1	105
15	Chemical kinetics of octane sensitivity in a spark-ignition engine. Combustion and Flame, 2017, 175, 2-15.	5.2	103
16	Chemical Kinetic Insights into the Octane Number and Octane Sensitivity of Gasoline Surrogate Mixtures. Energy & Fuels, 2017, 31, 1945-1960.	5.1	100
17	Autoignition and burning rates of fuel droplets under microgravity. Combustion and Flame, 2005, 143, 211-226.	5.2	96
18	Detailed Kinetic Modeling of Low-Temperature Heat Release for PRF Fuels in an HCCI Engine. , 0, , .		94

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19	Detailed chemical kinetic reaction mechanism for biodiesel components methyl stearate and methyl oleate. Proceedings of the Combustion Institute, 2011, 33, 383-389.	3.9	92
20	Autoignition of gasoline and its surrogates in a rapid compression machine. Proceedings of the Combustion Institute, 2013, 34, 345-352.	3.9	92
21	Experiments and modeling of the autoignition of methylcyclohexane at high pressure. Combustion and Flame, 2014, 161, 1972-1983.	5.2	92
22	A high-pressure rapid compression machine study of n-propylbenzene ignition. Combustion and Flame, 2014, 161, 65-74.	5.2	91
23	A Multicomponent Blend as a Diesel Fuel Surrogate for Compression Ignition Engine Applications. Journal of Engineering for Gas Turbines and Power, 2015, 137, .	1.1	85
24	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.	5.2	83
25	Detailed chemical kinetic modeling of the effects of C C double bonds on the ignition of biodiesel fuels. Proceedings of the Combustion Institute, 2013, 34, 3049-3056.	3.9	81
26	Probing the antagonistic effect of toluene as a component in surrogate fuel models at low temperatures and high pressures. A case study of toluene/dimethyl ether mixtures. Proceedings of the Combustion Institute, 2017, 36, 413-421.	3.9	71
27	The Reduced Effectiveness of EGR to Mitigate Knock at High Loads in Boosted SI Engines. SAE International Journal of Engines, 0, 10, 2305-2318.	0.4	71
28	Autoignition of gasoline surrogates at low temperature combustion conditions. Combustion and Flame, 2015, 162, 2272-2285.	5.2	63
29	Detailed chemical kinetic reaction mechanisms for primary reference fuels for diesel cetane number and spark-ignition octane number. Proceedings of the Combustion Institute, 2011, 33, 185-192.	3.9	62
30	Experimental and Kinetic Modeling Study of 2-Methyl-2-Butene: Allylic Hydrocarbon Kinetics. Journal of Physical Chemistry A, 2015, 119, 7462-7480.	2.5	62
31	Kinetic modeling study of surrogate components for gasoline, jet and diesel fuels: C7-C11 methylated aromatics. Proceedings of the Combustion Institute, 2019, 37, 521-529.	3.9	60
32	An experimental and kinetic modeling study of the oxidation of hexane isomers: Developing consistent reaction rate rules for alkanes. Combustion and Flame, 2019, 206, 123-137.	5.2	53
33	Cyclopentane combustion chemistry. Part I: Mechanism development and computational kinetics. Combustion and Flame, 2017, 183, 358-371.	5.2	51
34	Experimental and modeling studies of a biofuel surrogate compound: laminar burning velocities and jet-stirred reactor measurements of anisole. Combustion and Flame, 2018, 189, 325-336.	5.2	49
35	Cyclopentane combustion. Part II. Ignition delay measurements and mechanism validation. Combustion and Flame, 2017, 183, 372-385.	5.2	47
36	Autoignition and preliminary heat release of gasoline surrogates and their blends with ethanol at engine-relevant conditions: Experiments and comprehensive kinetic modeling. Combustion and Flame, 2021, 228, 57-77.	5.2	46

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37	Small ester combustion chemistry: Computational kinetics and experimental study of methyl acetate and ethyl acetate. Proceedings of the Combustion Institute, 2019, 37, 419-428.	3.9	45
38	An experimental and kinetic modeling study of n-octane and 2-methylheptane in an opposed-flow diffusion flame. Combustion and Flame, 2011, 158, 1277-1287.	5.2	44
39	A counterflow diffusion flame study of branched octane isomers. Proceedings of the Combustion Institute, 2013, 34, 1015-1023.	3.9	44
40	An experimental and modeling study of surrogate mixtures of n-propyl- and n-butylbenzene in n-heptane to simulate n-decylbenzene ignition. Combustion and Flame, 2014, 161, 1460-1473.	5.2	44
41	Experimental and modeling study of burning velocities for alkyl aromatic components relevant to diesel fuels. Proceedings of the Combustion Institute, 2015, 35, 341-348.	3.9	43
42	A kinetic modeling study of the thermal degradation of halogenated polymers. Journal of Analytical and Applied Pyrolysis, 2004, 72, 253-272.	5.5	42
43	An experimental and modeling study of the shock tube ignition of a mixture of n-heptane and n-propylbenzene as a surrogate for a large alkyl benzene. Proceedings of the Combustion Institute, 2013, 34, 411-418.	3.9	41
44	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. Combustion and Flame, 2017, 178, 268-276.	5.2	41
45	Autoignition behavior of gasoline/ethanol blends at engine-relevant conditions. Combustion and Flame, 2020, 216, 369-384.	5.2	41
46	Multi-fuel surrogate chemical kinetic mechanisms for real world applications. Physical Chemistry Chemical Physics, 2018, 20, 10588-10606.	2.8	40
47	Exploring gasoline oxidation chemistry in jet stirred reactors. Fuel, 2019, 236, 1282-1292.	6.4	38
48	A new predictive multi-zone model for HCCI engine combustion. Applied Energy, 2016, 178, 826-843.	10.1	35
49	An experimental and modeling study of diethyl carbonate oxidation. Combustion and Flame, 2015, 162, 1395-1405.	5.2	34
50	Elucidating reactivity regimes in cyclopentane oxidation: Jet stirred reactor experiments, computational chemistry, and kinetic modeling. Proceedings of the Combustion Institute, 2017, 36, 469-477.	3.9	34
51	Detailed Kinetic Modeling of Conventional Gasoline at Highly Boosted Conditions and the Associated Intermediate Temperature Heat Release. , 0, , .		33
52	An experimental and modeling study of the autoignition of 3-methylheptane. Proceedings of the Combustion Institute, 2013, 34, 335-343.	3.9	33
53	The role of correlations in uncertainty quantification of transportation relevant fuel models. Combustion and Flame, 2017, 180, 239-249.	5.2	33
54	Low temperature autoignition of 5-membered ring naphthenes: Effects of substitution. Combustion and Flame, 2019, 200, 387-404.	5.2	30

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55	Experimental and Kinetic Modeling Study of 3-Methylheptane in a Jet-Stirred Reactor. Energy & Fuels, 2012, 26, 4680-4689.	5.1	28
56	Experimental and kinetic modeling study of the effect of fuel composition in HCCI engines. Proceedings of the Combustion Institute, 2009, 32, 2843-2850.	3.9	27
57	Fuel molecular structure effect on autoignition of highly branched iso-alkanes at low-to-intermediate temperatures: Iso-octane versus iso-dodecane. Combustion and Flame, 2020, 214, 152-166.	5.2	26
58	Simulating combustion of a seven-component surrogate for a gasoline/ethanol blend including soot formation and comparison with experiments. Fuel, 2021, 288, 119451.	6.4	24
59	Modeling the combustion of high molecular weight fuels by a functional group approach. International Journal of Chemical Kinetics, 2012, 44, 257-276.	1.6	23
60	Autoignition of trans-decalin, a diesel surrogate compound: Rapid compression machine experiments and chemical kinetic modeling. Combustion and Flame, 2018, 194, 152-163.	5.2	23
61	Formulation of an RP-1 pyrolysis surrogate from shock tube measurements of fuel and ethylene time histories. Fuel, 2013, 103, 1051-1059.	6.4	20
62	Auto-ignition study of FACE gasoline and its surrogates at advanced IC engine conditions. Proceedings of the Combustion Institute, 2019, 37, 4699-4707.	3.9	20
63	Ignition delay time measurements and modeling for gasoline at very high pressures. Proceedings of the Combustion Institute, 2019, 37, 4885-4892.	3.9	20
64	Plasma flow reactor for steady state monitoring of physical and chemical processes at high temperatures. Review of Scientific Instruments, 2017, 88, 093506.	1.3	19
65	Gas Phase Chemical Evolution of Uranium, Aluminum, and Iron Oxides. Scientific Reports, 2018, 8, 10451.	3.3	18
66	Development and Experimental Validation of a Combustion Model with Detailed Chemistry for Knock Predictions. , 0, , .		16
67	An Experimental and Modeling Study Into Using Normal and Isocetane Fuel Blends as a Surrogate for a Hydroprocessed Renewable Diesel Fuel. Journal of Energy Resources Technology, Transactions of the ASME, 2014, 136, .	2.3	16
68	Improved skeletal reduction on multiple gasoline-ethanol surrogates using a Jacobian-aided DRGEP approach under gasoline compression ignition (GCI) engine conditions. Fuel, 2017, 210, 617-624.	6.4	15
69	Kinetic Modeling of Knock Properties in Internal Combustion Engines. , 0, , .		14
70	An Experimental and Modeling-Based Study Into the Ignition Delay Characteristics of Diesel Surrogate Binary Blend Fuels. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	1.1	14
71	On the combustion and sooting behavior of standard and hydro-treated jet fuels: An experimental and modeling study on the compositional effects. Proceedings of the Combustion Institute, 2021, 38, 523-532.	3.9	12
72	Improve efficiency of thermal regenerators and VOCs abatement systems: An experimental and modeling study. Experimental Thermal and Fluid Science, 2007, 31, 403-411.	2.7	11

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73	Autoignition of CRC diesel surrogates at low temperature combustion conditions: Rapid compression machine experiments and modeling. Combustion and Flame, 2020, 219, 178-197.	5.2	11
74	A Multizone approach to the detailed kinetic modeling of HCCI combustion. , 0, , .		10
75	Experimental and kinetic modeling study of tetralin: A naphtheno-aromatic fuel for gasoline, jet and diesel surrogates. Proceedings of the Combustion Institute, 2021, 38, 641-649.	3.9	9
76	Kinetic Modelling Study of Octane Number and Sensitivity of Hydrocarbon Mixtures in CFR Engines. , 0, , .		8
77	Computational Chemistry Consortium: Surrogate Fuel Mechanism Development, Pollutants Sub-Mechanisms and Components Library. , 0, , .		6
78	A Multi-Component Blend as a Diesel Fuel Surrogate for Compression Ignition Engine Applications. , 2014, , .		5
79	An Experimental and Modeling-Based Study Into the Ignition Delay Characteristics of Diesel Surrogate Binary Blend Fuels. , 2011, , .		4
80	An Experimental and Modeling Study Into Using Normal and ISO Cetane Fuel Blends as a Surrogate for a Hydro-Processed Renewable Diesel (HRD) Fuel. , 2013, , .		3
81	Quantifying Uncertainty in Predictions of Kinetically Modulated Combustion: Application to HCCI Using a Detailed Transportation Fuel Model. , 2018, , .		2
82	Experimental and modeling study of chemical-based strategies for mitigating dust formation in fusion reactors. Plasma Physics and Controlled Fusion, 2019, 61, 045007.	2.1	2
83	Understanding the Compositional Effects of SAFs on Combustion Intermediates. Frontiers in Energy Research, 2022, 10, .	2.3	1
84	A Computational Study of the Mixture Preparation in a Direct Injection Hydrogen Engine. , 2014, , .		0
85	Plasma Chemical Kinetics in a Steady Flow. , 2016, , .		0