Karl Alexander Heufer

List of Publications by Year
in descending order

42	2,399	430874 18	265206 42
papers	citations	h-index	g-index

44	44	44	1341
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An experimental and detailed chemical kinetic modeling study of hydrogen and syngas mixture oxidation at elevated pressures. Combustion and Flame, 2013, 160, 995-1011.	5.2	589
2	An updated experimental and kinetic modeling study of n-heptane oxidation. Combustion and Flame, 2016, 172, 116-135.	5.2	307
3	A detailed chemical kinetic modeling, ignition delay time and jet-stirred reactor study of methanol oxidation. Combustion and Flame, 2016, 165, 125-136.	5.2	232
4	An ignition delay time and chemical kinetic modeling study of the pentane isomers. Combustion and Flame, 2016, 163, 138-156.	5.2	177
5	A comprehensive iso-octane combustion model with improved thermochemistry and chemical kinetics. Combustion and Flame, 2017, 178, 111-134.	5.2	164
6	On the Chemical Kinetics of Ethanol Oxidation: Shock Tube, Rapid Compression Machine and Detailed Modeling Study. Zeitschrift Fur Physikalische Chemie, 2012, 226, 1-28.	2.8	111
7	Detailed kinetic modeling of dimethoxymethane. Part II: Experimental and theoretical study of the kinetics and reaction mechanism. Combustion and Flame, 2019, 205, 522-533.	5.2	76
8	A comparison of longer alkane and alcohol ignition including new experimental results for n-pentanol and n-hexanol. Proceedings of the Combustion Institute, 2013, 34, 511-518.	3.9	75
9	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.	3.9	69
10	A Comprehensive Experimental and Simulation Study of Ignition Delay Time Characteristics of Single Fuel C₁â€“C₂ Hydrocarbons over a Wide Range of Temperatures, Pressures, Equivalence Ratios, and Dilutions. Energy & Fuels, 2020, 34, 3755-3771.	5.1	67
11	Toward a better understanding of 2-butanone oxidation: Detailed species measurements and kinetic modeling. Combustion and Flame, 2017, 184, 195-207.	5.2	53
12	A comprehensive experimental and kinetic modeling study of butanone. Combustion and Flame, 2016, 168, 296-309.	5.2	52
13	Detailed kinetic modeling of dimethoxymethane. Part I: Ab initio thermochemistry and kinetics predictions for key reactions. Combustion and Flame, 2018, 189, 433-442.	5.2	48
14	An experimental and theoretical comparison of C3â€“C5 linear ketones. Proceedings of the Combustion Institute, 2017, 36, 561-568.	3.9	47
15	Oxidation of 2-methylfuran and 2-methylfuran/n-heptane blends: An experimental and modeling study. Combustion and Flame, 2018, 196, 54-70.	5.2	32
16	An experimental and kinetic modeling study on the oxidation of 1,3-dioxolane. Proceedings of the Combustion Institute, 2021, 38, 543-553.	3.9	28
17	A laminar flame investigation of 2-butanone, and the combustion-related intermediates formed through its oxidation. Proceedings of the Combustion Institute, 2017, 36, 1175-1183.	3.9	23
18	Experimental and theoretical investigations of methyl formate oxidation including hot Î²-scission. Proceedings of the Combustion Institute, 2019, 37, 307-314.	3.9	20

#	Article	IF	Citations
19	Diethoxymethane as tailor-made fuel for gasoline controlled autoignition. Proceedings of the Combustion Institute, 2019, 37, 4691-4698.	3.9	19
20	A high-temperature study of 2-pentanone oxidation: experiment and kinetic modeling. Proceedings of the Combustion Institute, 2019, 37, 1683-1690.	3.9	17
21	New experimental insights into acetylene oxidation through novel ignition delay times, laminar burning velocities and chemical kinetic modelling. Proceedings of the Combustion Institute, 2019, 37, 583-591.	3.9	16
22	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.	5.2	16
23	An experimental, theoretical and kinetic modelling study on the reactivity of a lignin model compound anisole under engine-relevant conditions. Fuel, 2020, 269, 117190.	6.4	15
24	Experimental and modeling study of the low to high temperature oxidation of the linear pentanone isomers: 2-pentanone and 3-pentanone. Combustion and Flame, 2020, 216, 29-44.	5.2	14
25	Experimental Investigation and Benchmark Study of Oxidation of Methaneâ€“Propaneâ€“n-Heptane Mixtures at Pressures up to 100 bar. Energies, 2019, 12, 3410.	3.1	13
26	Key Chemical Kinetic Steps in Reaction Mechanisms for Fuels from Biomass: A Perspective. Energy & Fuels, 2021, 35, 15339-15359.	5.1	13
27	Quantitative nitrogen oxide measurements by laser-induced fluorescence in diesel-like n-heptane jets with enhanced premixing. Combustion and Flame, 2018, 188, 250-261.	5.2	11
28	A Comprehensive Experimental and Kinetic Modeling Study of the Combustion Chemistry of Diethoxymethane. Energy & Fuels, 2021, 35, 16086-16100.	5.1	11
29	Understanding the Oxidation Behavior of Automotive Liquefied Petroleum Gas Fuels: Experimental and Kinetic Analyses. Energy & Fuels, 2020, 34, 2323-2333.	5.1	10
30	Proceeding on the riddles of ketene pyrolysis by applying ab initio quantum chemical computational methods in a detailed kinetic modeling study. Proceedings of the Combustion Institute, 2021, 38, 749-755.	3.9	10
31	Updated thermochemistry for renewable transportation fuels: New groups and group values for acetals and ethers, their radicals, and peroxy species. International Journal of Chemical Kinetics, 2021, 53, 299-307.	1.6	9
32	Perovskite Catalyst for In-Cylinder Coating to Reduce Raw Pollutant Emissions of Internal Combustion Engines. ACS Omega, 2022, 7, 5340-5349.	3.5	9
33	Designed to Be Green, Economic, and Efficient: A Ketoneâ€Esterâ€Alcoholâ€Alkane Blend for Future Sparkâ€Ignition Engines. ChemSusChem, 2021, 14, 5254-5264.	6.8	8
34	Unraveling the high reactivity of 3-methyltetrahydrofuran over 2-methyltetrahydrofuran through kinetic modeling and experiments. Proceedings of the Combustion Institute, 2019, 37, 221-230.	3.9	7
35	The impact of NO_x addition on the ignition behaviour of n-pentane. Reaction Chemistry and Engineering, 2021, 6, 2191-2203.	3.7	7
36	Insights into the oxidation of propylene oxide through the analysis of experiments and kinetic modeling. Proceedings of the Combustion Institute, 2021, 38, 459-467.	3.9	4

#	Article	IF	Citations
37	Evaluating a novel gasoline surrogate containing isopentane using a rapid compression machine and an engine. Proceedings of the Combustion Institute, 2021, 38, 5643-5653.	3.9	4
38	Kinetic investigations on the high- and low-temperature chemistry of ethyl acetate. Combustion and Flame, 2022, 243, 111995.	5.2	4
39	Investigation of Sheet Metal Forming Using a Rapid Compression Machine. Materials, 2019, 12, 3957.	2.9	3
40	Comparative study on ethyl butanoate reactivity â€“ Experimental investigation and kinetic modeling of the C6 ethyl ester. Proceedings of the Combustion Institute, 2021, 38, 939-946.	3.9	3
41	Shock tube study of the pyrolysis kinetics of Di- and trimethoxy methane. Combustion and Flame, 2022, 242, 112186.	5.2	3
42	Experimental and theoretical investigation of the combustion characteristics of di-tert-butyl peroxide. Proceedings of the Combustion Institute, 2021, 38, 469-477.	3.9	2