Kai Moshammer

List of Publications by Year
in descending order

51	2,588	186265 28	189892 50
papers	citations	h-index	g-index

51	51	51	1698
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Selective suspension in aqueous sodium dodecyl sulfate according to electronic structure type allows simple separation of metallic from semiconducting single-walled carbon nanotubes. Nano Research, 2009, 2, 599-606.	10.4	220
2	Auto-ignition kinetics of ammonia and ammonia/hydrogen mixtures at intermediate temperatures and high pressures. Combustion and Flame, 2019, 206, 189-200.	5.2	177
3	Detection and Identification of the Keto-Hydroperoxide (HOOCH₂OCHO) and Other Intermediates during Low-Temperature Oxidation of Dimethyl Ether. Journal of Physical Chemistry A, 2015, 119, 7361-7374.	2.5	143
4	Detailed mass spectrometric and modeling study of isomeric butene flames. Combustion and Flame, 2013, 160, 487-503.	5.2	130
5	A shock tube and modeling study on the autoignition properties of ammonia at intermediate temperatures. Proceedings of the Combustion Institute, 2019, 37, 205-211.	3.9	127
6	Experimental and kinetic modeling study of the low- and intermediate-temperature oxidation of dimethyl ether. Combustion and Flame, 2015, 162, 1113-1125.	5.2	120
7	Unraveling the structure and chemical mechanisms of highly oxygenated intermediates in oxidation of organic compounds. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13102-13107.	7.1	117
8	Comprehensive kinetic modeling and experimental study of a fuel-rich, premixed n-heptane flame. Combustion and Flame, 2015, 162, 2045-2058.	5.2	107
9	Quantification of the Keto-Hydroperoxide (HOOCH₂OCHO) and Other Elusive Intermediates during Low-Temperature Oxidation of Dimethyl Ether. Journal of Physical Chemistry A, 2016, 120, 7890-7901.	2.5	104
10	Additional chain-branching pathways in the low-temperature oxidation of branched alkanes. Combustion and Flame, 2016, 164, 386-396.	5.2	94
11	Investigating repetitive reaction pathways for the formation of polycyclic aromatic hydrocarbons in combustion processes. Combustion and Flame, 2017, 180, 250-261.	5.2	88
12	Experimental and numerical study of chemiluminescent species in low-pressure flames. Applied Physics B: Lasers and Optics, 2012, 107, 571-584.	2.2	84
13	An experimental and kinetic modeling study on dimethyl carbonate (DMC) pyrolysis and combustion. Combustion and Flame, 2016, 164, 224-238.	5.2	75
14	Fuel-nitrogen conversion in the combustion of small amines using dimethylamine and ethylamine as biomass-related model fuels. Combustion and Flame, 2012, 159, 2254-2279.	5.2	74
15	Photoelectronâ€“photoion coincidence spectroscopy for multiplexed detection of intermediate species in a flame. Physical Chemistry Chemical Physics, 2014, 16, 22791-22804.	2.8	74
16	n-Heptane cool flame chemistry: Unraveling intermediate species measured in a stirred reactor and motored engine. Combustion and Flame, 2018, 187, 199-216.	5.2	68
17	An experimental and kinetic modeling study of 2-methyltetrahydrofuran flames. Combustion and Flame, 2013, 160, 2729-2743.	5.2	60
18	Electron ionization, photoionization and photoelectron/photoion coincidence spectroscopy in mass-spectrometric investigations of a low-pressure ethylene/oxygen flame. Proceedings of the Combustion Institute, 2015, 35, 779-786.	3.9	58

#	Article	IF	Citations
19	Influences of the molecular fuel structure on combustion reactions towards soot precursors in selected alkane and alkene flames. Physical Chemistry Chemical Physics, 2018, 20, 10780-10795.	2.8	57
20	2D-imaging of sampling-probe perturbations in laminar premixed flames using Kr X-ray fluorescence. Combustion and Flame, 2017, 181, 214-224.	5.2	51
21	Consumption and hydrocarbon growth processes in a 2-methyl-2-butene flame. Combustion and Flame, 2017, 175, 34-46.	5.2	42
22	Aromatic ring formation in opposed-flow diffusive 1,3-butadiene flames. Proceedings of the Combustion Institute, 2017, 36, 947-955.	3.9	41
23	New insights into the low-temperature oxidation of 2-methylhexane. Proceedings of the Combustion Institute, 2017, 36, 373-382.	3.9	36
24	Autoignition studies of Liquefied Natural Gas (LNG) in a shock tube and a rapid compression machine. Fuel, 2018, 232, 423-430.	6.4	34
25	Review of the Influence of Oxygenated Additives on the Combustion Chemistry of Hydrocarbons. Energy & Fuels, 2021, 35, 13550-13568.	5.1	33
26	1-, 2- and 3-Pentanol combustion in laminar hydrogen flames â€" A comparative experimental and modeling study. Combustion and Flame, 2015, 162, 3197-3209.	5.2	32
27	Detailed speciation and reactivity characterization of fuel-specific in-cylinder reforming products and the associated impact on engine performance. Fuel, 2016, 185, 348-361.	6.4	32
28	Exploring the negative temperature coefficient behavior of acetaldehyde based on detailed intermediate measurements in a jet-stirred reactor. Combustion and Flame, 2018, 192, 120-129.	5.2	31
29	The influence of dimethoxy methane (DMM)/dimethyl carbonate (DMC) addition on a premixed ethane/oxygen/argon flame. Proceedings of the Combustion Institute, 2017, 36, 449-457.	3.9	29
30	Isomer-Selective Detection of Keto-Hydroperoxides in the Low-Temperature Oxidation of Tetrahydrofuran. Journal of Physical Chemistry A, 2019, 123, 8274-8284.	2.5	24
31	The C5 chemistry preceding the formation of polycyclic aromatic hydrocarbons in a premixed 1-pentene flame. Combustion and Flame, 2019, 206, 411-423.	5.2	23
32	Knowledge generation through data research: New validation targets for the refinement of kinetic mechanisms. Proceedings of the Combustion Institute, 2019, 37, 743-750.	3.9	22
33	Formation of Oxygenated and Hydrocarbon Intermediates in Premixed Combustion of 2-Methylfuran. Zeitschrift Fur Physikalische Chemie, 2015, 229, 507-528.	2.8	19
34	Experimental and chemical kinetic modeling investigation of methyl butanoate as a component of biodiesel surrogate. Combustion and Flame, 2018, 197, 49-64.	5.2	18
35	The influence of i-butanol addition to the chemistry of premixed 1,3-butadiene flames. Proceedings of the Combustion Institute, 2017, 36, 1311-1319.	3.9	16
36	Investigation of the chemical structures of laminar premixed flames fueled by acetaldehyde. Proceedings of the Combustion Institute, 2017, 36, 1287-1294.	3.9	14

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37	A further experimental and modeling study of acetaldehyde combustion kinetics. Combustion and Flame, 2018, 196, 337-350.	5.2	14
38	Chemical insights into the larger sooting tendency of 2-methyl-2-butene compared to n-pentane. Combustion and Flame, 2019, 208, 182-197.	5.2	13
39	Experimental investigation of partially premixed, highly-diluted dimethyl ether flames at low temperatures. Proceedings of the Combustion Institute, 2013, 34, 763-770.	3.9	12
40	Insights into the oxidation kinetics of a cetane improver â€“ 1,2-dimethoxyethane (1,2-DME) with experimental and modeling methods. Proceedings of the Combustion Institute, 2019, 37, 555-564.	3.9	12
41	Molecular-Weight Growth in Ozone-Initiated Low-Temperature Oxidation of Methyl Crotonate. Journal of Physical Chemistry A, 2020, 124, 7881-7892.	2.5	11
42	Low- and high-temperature study of n-heptane combustion chemistry. Proceedings of the Combustion Institute, 2021, 38, 405-413.	3.9	9
43	A Comprehensive Analysis of the Risks Associated with the Determination of Biofuelsâ€™ Calorific Value by Bomb Calorimetry. Energies, 2022, 15, 2771.	3.1	9
44	The impact of the third O2 addition reaction network on ignition delay times of neo-pentane. Proceedings of the Combustion Institute, 2021, 38, 299-307.	3.9	8
45	Tailoring Charge Reactivity Using In-Cylinder Generated Reformate for Gasoline Compression Ignition Strategies. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	1.1	7
46	A numerical study of highly-diluted, burner-stabilised dimethyl etherÂflames. Combustion Theory and Modelling, 2015, 19, 238-259.	1.9	6
47	A detailed uncertainty analysis of EI-MBMS data from combustion experiments. Combustion and Flame, 2022, 243, 112012.	5.2	6
48	Numerical Study of the Mixing Inside a Jet Stirred Reactor using Large Eddy Simulations. Flow, Turbulence and Combustion, 2019, 102, 331-343.	2.6	3
49	Entanglement of n-heptane and iso-butanol chemistries in flames fueled by their mixtures. Proceedings of the Combustion Institute, 2021, 38, 2387-2395.	3.9	3
50	Analysis of the turbulent flow structure in a jet stirred reactor using proper orthogonal decomposition. Journal of Physics: Conference Series, 2018, 1065, 202002.	0.4	1
51	Parametrical investigation for the optimization of spherical jet-stirred reactors design using large eddy simulations. SN Applied Sciences, 2021, 3, 1.	2.9	0