Maxence Lailliau

List of Publications by Year
in descending order

84 papers	2,694 citations	136950 32 h-index	206112 48 g-index
88 all docs	88 docs citations	88 times ranked	1439 citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental and modeling investigation of the low-temperature oxidation of n-heptane. Combustion and Flame, 2012, 159, 3455-3471.	5.2	165
2	Experimental and detailed kinetic model for the oxidation of a Gas to Liquid (GtL) jet fuel. Combustion and Flame, 2014, 161, 835-847.	5.2	111
3	A comprehensive experimental and modeling study of iso-pentanol combustion. Combustion and Flame, 2013, 160, 2712-2728.	5.2	95
4	Experimental and Kinetic Modeling Study of the Oxidation of Methyl Hexanoate. Energy & Fuels, 2008, 22, 1469-1479.	5.1	94
5	A comprehensive combustion chemistry study of 2,5-dimethylhexane. Combustion and Flame, 2014, 161, 1444-1459.	5.2	88
6	Experimental and Detailed Kinetic Modeling Study of Isoamyl Alcohol (Isopentanol) Oxidation in a Jet-Stirred Reactor at Elevated Pressure. Energy & Fuels, 2011, 25, 4986-4998.	5.1	76
7	EFFECTS OF AIR CONTAMINATION ON THE COMBUSTION OF HYDROGENâ€"EFFECT OF NO AND NO2 ADDITION ON HYDROGEN IGNITION AND OXIDATION KINETICS. Combustion Science and Technology, 2006, 178, 1999-2024.	2.3	71
8	High pressure effects on the mutual sensitization of the oxidation of NO and CH4â€"C2H6 blends. Physical Chemistry Chemical Physics, 2007, 9, 4230.	2.8	71
9	Experimental and Modeling Study of the Oxidation Kinetics of <i>n</i>-Undecane and <i>n</i>-Dodecane in a Jet-Stirred Reactor. Energy & Fuels, 2012, 26, 4253-4268.	5.1	70
10	Experimental and modeling study of the oxidation of 1-pentene at high temperature. International Journal of Chemical Kinetics, 2005, 37, 451-463.	1.6	62
11	Detailed Kinetic Mechanism for the Oxidation of Vegetable Oil Methyl Esters: New Evidence from Methyl Heptanoate. Energy & Fuels, 2009, 23, 4254-4268.	5.1	62
12	Homogeneous Charge Compression Ignition Combustion of Primary Reference Fuels Influenced by Ozone Addition. Energy & Fuels, 2013, 27, 5495-5505.	5.1	60
13	Ozone applied to the homogeneous charge compression ignition engine to control alcohol fuels combustion. Applied Energy, 2015, 160, 566-580.	10.1	60
14	Experimental and modeling study of the oxidation of cyclohexene. International Journal of Chemical Kinetics, 2003, 35, 273-285.	1.6	59
15	Combustion in micro-channels with a controlled temperature gradient. Experimental Thermal and Fluid Science, 2016, 73, 79-86.	2.7	59
16	A chemical kinetic study of the oxidation of dibutyl-ether in a jet-stirred reactor. Combustion and Flame, 2017, 185, 4-15.	5.2	58
17	Experimental and Detailed Kinetic Modeling Study of Ethyl Pentanoate (Ethyl Valerate) Oxidation in a Jet Stirred Reactor and Laminar Burning Velocities in a Spherical Combustion Chamber. Energy & Fuels, 2012, 26, 4735-4748.	5.1	55
18	Hydrogen-enriched natural gas blend oxidation under high-pressure conditions: Experimental and detailed chemical kinetic modeling. International Journal of Hydrogen Energy, 2006, 31, 505-515.	7.1	53

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19	Oxidation of a Coal-to-Liquid Synthetic Jet Fuel: Experimental and Chemical Kinetic Modeling Study. Energy & Fuels, 2012, 26, 6070-6079.	5.1	50
20	Exploration of the oxidation chemistry of dimethoxymethane: Jet-stirred reactor experiments and kinetic modeling. Combustion and Flame, 2018, 193, 491-501.	5.2	50
21	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
22	New insights into the peculiar behavior of laminar burning velocities of hydrogenâ€“air flames according to pressure and equivalence ratio. Combustion and Flame, 2014, 161, 2235-2241.	5.2	48
23	EXPERIMENTAL STUDY AND DETAILED KINETIC MODELING OF THE MUTUAL SENSITIZATION OF THE OXIDATION OF NITRIC OXIDE, ETHYLENE, AND ETHANE. Combustion Science and Technology, 2005, 177, 1767-1791.	2.3	47
24	Laminar Burning Velocities of C₄â€“C₇ Ethyl Esters in a Spherical Combustion Chamber: Experimental and Detailed Kinetic Modeling. Energy & Fuels, 2012, 26, 6669-6677.	5.1	43
25	An experimental chemical kinetic study of the oxidation of diethyl ether in a jet-stirred reactor and comprehensive modeling. Combustion and Flame, 2018, 193, 453-462.	5.2	43
26	Oscillating flames in micro-combustion. Combustion and Flame, 2016, 167, 392-394.	5.2	42
27	Experimental and modeling study of the oxidation of n- and iso-butanal. Combustion and Flame, 2013, 160, 1609-1626.	5.2	40
28	An experimental study in a jet-stirred reactor and a comprehensive kinetic mechanism for the oxidation of methyl ethyl ketone. Proceedings of the Combustion Institute, 2017, 36, 459-467.	3.9	40
29	Experimental and Modeling Study of the Kinetics of Oxidation of Simple Biodieselâˆ'Biobutanol Surrogates: Methyl Octanoateâˆ'Butanol Mixtures. Energy & Fuels, 2010, 24, 3906-3916.	5.1	39
30	Experimental and kinetic modeling study of trans-methyl-3-hexenoate oxidation in JSR and the role of CC double bond. Combustion and Flame, 2014, 161, 818-825.	5.2	38
31	Experimental and Modeling Study of the Oxidation of 1-Butene and <i>cis</i>-2-Butene in a Jet-Stirred Reactor and a Combustion Vessel. Energy & Fuels, 2015, 29, 1107-1118.	5.1	37
32	Rich methane premixed laminar flames doped with light unsaturated hydrocarbonsI. Allene and propyne. Combustion and Flame, 2006, 146, 620-634.	5.2	32
33	An experimental and modeling study of 2-methyl-1-butanol oxidation in a jet-stirred reactor. Combustion and Flame, 2014, 161, 3003-3013.	5.2	29
34	An Experimental and Kinetic Modeling Study of Premixed Laminar Flames of Methyl Pentanoate and Methyl Hexanoate. Zeitschrift Fur Physikalische Chemie, 2015, 229, 759-780.	2.8	29
35	Experimental and Kinetic Modeling Study of 3-Methylheptane in a Jet-Stirred Reactor. Energy & Fuels, 2012, 26, 4680-4689.	5.1	28
36	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

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37	Combustion and Emissions Characteristics of Valeric Biofuels in a Compression Ignition Engine. Journal of Energy Engineering - ASCE, 2014, 140, .	1.9	27
38	Quantitative Measurements of HO₂ and Other Products of <i>n</i>-Butane Oxidation (H₂O₂, H₂O, CH₂O, and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 Td (C<sub>2</ with Sampling Nozzle and Cavity Ring-Down Spectroscopy (cw-CRDS). Journal of the American Chemical Society, 2014, 136, 16689-16694.	13.7	27
39	Chemical Kinetic Study of the Oxidation of a Biodieselâˆ’Bioethanol Surrogate Fuel: Methyl Octanoateâˆ’Ethanol Mixtures. Journal of Physical Chemistry A, 2010, 114, 3896-3908.	2.5	26
40	Mutual Sensitization of the Oxidation of Nitric Oxide and a Natural Gas Blend in a JSR at Elevated Pressure:Â Experimental and Detailed Kinetic Modeling Studyâ€. Journal of Physical Chemistry A, 2006, 110, 6608-6616.	2.5	25
41	Low temperature oxidation of n-hexane in a flow reactor. Fuel, 2014, 126, 282-293.	6.4	25
42	Oxidation of di-n-butyl ether: Experimental characterization of low-temperature products in JSR and RCM. Combustion and Flame, 2020, 222, 133-144.	5.2	25
43	Experimental Study of Tetralin Oxidation and Kinetic Modeling of Its Pyrolysis and Oxidation. Energy & Fuels, 2013, 27, 1576-1585.	5.1	24
44	Quantification of HO2 and other products of dimethyl ether oxidation (H2O2, H2O, and CH2O) in a jet-stirred reactor at elevated temperatures by low-pressure sampling and continuous-wave cavity ring-down spectroscopy. Fuel, 2015, 158, 248-252.	6.4	23
45	Experimental study and numerical validation of oxy-ammonia combustion at elevated temperatures and pressures. Combustion and Flame, 2022, 236, 111819.	5.2	23
46	Screening Method for Fuels in Homogeneous Charge Compression Ignition Engines: Application to Valeric Biofuels. Energy & Fuels, 2017, 31, 607-614.	5.1	22
47	Experimental and Detailed Kinetic Modeling Study of Cyclopentanone Oxidation in a Jet-Stirred Reactor at 1 and 10 atm. Energy & Fuels, 2017, 31, 2144-2155.	5.1	22
48	Oxidation of di-n-propyl ether: Characterization of low-temperature products. Proceedings of the Combustion Institute, 2021, 38, 337-344.	3.9	22
49	Experimental characterization of n-heptane low-temperature oxidation products including keto-hydroperoxides and highly oxygenated organic molecules (HOMs). Combustion and Flame, 2021, 224, 83-93.	5.2	22
50	Burning velocities and jet-stirred reactor oxidation of diethyl carbonate. Proceedings of the Combustion Institute, 2017, 36, 553-560.	3.9	20
51	Kinetics of propyl acetate oxidation: Experiments in a jet-stirred reactor, ab initio calculations, and rate constant determination. Proceedings of the Combustion Institute, 2019, 37, 429-436.	3.9	15
52	Revisiting low temperature oxidation chemistry of n-heptane. Combustion and Flame, 2022, 242, 112177.	5.2	15
53	A high pressure oxidation study of di-n-propyl ether. Fuel, 2020, 263, 116554.	6.4	14
54	The high-pressure reduction of nitric oxide by a natural gas blend. Combustion and Flame, 2005, 143, 135-137.	5.2	13

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55	Pyrolysis of butane-2,3â€‘dione from low to high pressures: Implications for methyl-related growth chemistry. Combustion and Flame, 2019, 200, 69-81.	5.2	13
56	Experimental Characterization of Tetrahydrofuran Low-Temperature Oxidation Products Including Ketohydroperoxides and Highly Oxygenated Molecules. Energy & Fuels, 2021, 35, 7242-7252.	5.1	13
57	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
58	Oxidation of diethyl ether: Extensive characterization of products formed at low temperature using high resolution mass spectrometry. Combustion and Flame, 2021, 228, 340-350.	5.2	12
59	Experimental and kinetic modeling study of n-hexane oxidation. Detection of complex low-temperature products using high-resolution mass spectrometry. Combustion and Flame, 2021, 233, 111581.	5.2	12
60	Methyl-3-hexenoate combustion chemistry: Experimental study and numerical kinetic simulation. Combustion and Flame, 2020, 222, 170-180.	5.2	11
61	Experimental and numerical studies of the diluent influence (N2, Ar, He, Xe) on stable premixed methane flames in micro-combustion. Proceedings of the Combustion Institute, 2021, 38, 6753-6761.	3.9	11
62	Experimental and Kinetic Modeling of the Oxidation of Synthetic Jet Fuels and Surrogates. Combustion Science and Technology, 2016, 188, 1705-1718.	2.3	10
63	A pyrolysis study on C4â€“C8 symmetric ethers. Proceedings of the Combustion Institute, 2021, 38, 329-336.	3.9	10
64	On the similarities and differences between the products of oxidation of hydrocarbons under simulated atmospheric conditions and cool flames. Atmospheric Chemistry and Physics, 2021, 21, 7845-7862.	4.9	10
65	Experimental Study of the Oxidation of<i>N</i>-Tetradecane in a Jet-Stirred Reactor (JSR) and Detailed Chemical Kinetic Modeling. Combustion Science and Technology, 2014, 186, 594-606.	2.3	9
66	Identification and Quantification of Aromatic Hydrocarbons Adsorbed on Soot from Premixed Flames of Kerosene, Synthetic Kerosene, and Keroseneâ€“Synthetic Biofuels. Energy & Fuels, 2015, 29, 6556-6564.	5.1	9
67	Experimental and kinetic modeling study of n-pentane oxidation at 10 atm, Detection of complex low-temperature products by Q-Exactive Orbitrap. Combustion and Flame, 2022, 235, 111723.	5.2	9
68	Combustion of a Gas-to-Liquidâ€“Based Alternative Jet Fuel: Experimental and Detailed Kinetic Modeling. Combustion Science and Technology, 2014, 186, 1275-1283.	2.3	8
69	An experimental and modeling study of the oxidation of 3-pentanol at high pressure. Proceedings of the Combustion Institute, 2019, 37, 477-484.	3.9	8
70	A Chemical Kinetic Investigation on Butyl Formate Oxidation: <i>Ab Initio</i> Calculations and Experiments in a Jet-Stirred Reactor. Energy & Fuels, 2017, 31, 6194-6205.	5.1	7
71	Oxidation of pentan-2-ol â€“ Part I: Theoretical investigation on the decomposition and isomerization reactions of pentan-2-ol radicals. Proceedings of the Combustion Institute, 2021, 38, 823-832.	3.9	7
72	Low-temperature oxidation of a gasoline surrogate: Experimental investigation in JSR and RCM using high-resolution mass spectrometry. Combustion and Flame, 2021, 228, 128-141.	5.2	7

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73	Towards a Comprehensive Characterization of the Low-Temperature Autoxidation of Di-n-Butyl Ether. Molecules, 2021, 26, 7174.	3.8	6
74	Kinetics of oxidation of levulinic biofuels in a jet-stirred reactor: Methyl levulinate. Proceedings of the Combustion Institute, 2019, 37, 381-388.	3.9	5
75	Gasoline Surrogate Oxidation in a Motored Engine, a JSR, and an RCM: Characterization of Cool-Flame Products by High-Resolution Mass Spectrometry. Energy & Fuels, 2022, 36, 3893-3908.	5.1	5
76	The Combustion of Synthetic Jet Fuels (Gas to Liquid and Coal to Liquid) and Multi-Component Surrogates: Experimental and Modeling Study. , 2015, , .		4
77	Experimental and Modeling Study of the Oxidation of Two Branched Aldehydes in a Jet-Stirred Reactor: 2-Methylbutanal and 3-Methylbutanal. Energy & Fuels, 2017, 31, 3206-3218.	5.1	4
78	More insight into cyclohexanone oxidation: Jet-stirred reactor experiments and kinetic modeling. Fuel, 2018, 220, 908-915.	6.4	4
79	Oxidation of pentan-2-ol â€“ part II: Experimental and modeling study. Proceedings of the Combustion Institute, 2021, 38, 833-841.	3.9	4
80	Oxidation of C₅ esters: Influence of the position of the ester function. International Journal of Chemical Kinetics, 2021, 53, 1124-1132.	1.6	4
81	Pressure measurements and an analytical model for laser-generated shock waves in solids at low irradiance. Journal of Physics Condensed Matter, 2002, 14, 10793-10797.	1.8	3
82	Pulsating combustion of ethylene in micro-channels with controlled temperature gradient. Combustion Science and Technology, 2018, , 1-11.	2.3	2
83	Polar Aromatic Compounds in Soot from Premixed Flames of Kerosene, Synthetic Paraffinic Kerosene, and Keroseneâ€“Synthetic Biofuels. Energy & Fuels, 2021, 35, 11427-11444.	5.1	2
84	Low-Temperature Oxidation of Di-<i>n</i>-Butyl Ether in a Motored Homogeneous Charge Compression Ignition (HCCI) Engine: Comparison of Characteristic Products with RCM and JSR Speciation by Orbitrap. Energy & Fuels, 0, , .	5.1	1