Olivier Mathieu

List of Publications by Year
in descending order

52 papers	3,571 citations	279487 23 h-index	197535 49 g-index
55 all docs	55 docs citations	55 times ranked	1592 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.	2.8	589
2	An experimental and chemical kinetic modeling study of 1,3-butadiene combustion: Ignition delay time and laminar flame speed measurements. Combustion and Flame, 2018, 197, 423-438.	2.8	432
3	Experimental and modeling study on the high-temperature oxidation of Ammonia and related NOx chemistry. Combustion and Flame, 2015, 162, 554-570.	2.8	399
4	A comprehensive experimental and modeling study of isobutene oxidation. Combustion and Flame, 2016, 167, 353-379.	2.8	282
5	An experimental and modeling study of propene oxidation. Part 2: Ignition delay time and flame speed measurements. Combustion and Flame, 2015, 162, 296-314.	2.8	270
6	Laminar Flame Speed and Ignition Delay Time Data for the Kinetic Modeling of Hydrogen and Syngas Fuel Blends. Journal of Engineering for Gas Turbines and Power, 2013, 135, .	0.5	181
7	An ignition delay time and chemical kinetic modeling study of the pentane isomers. Combustion and Flame, 2016, 163, 138-156.	2.8	177
8	Assessing the predictions of a NO x kinetic mechanism on recent hydrogen and syngas experimental data. Combustion and Flame, 2017, 182, 122-141.	2.8	168
9	Ignition delay times, laminar flame speeds, and mechanism validation for natural gas/hydrogen blends at elevated pressures. Combustion and Flame, 2014, 161, 1432-1443.	2.8	127
10	Shock-tube study of the ignition of multi-component syngas mixtures with and without ammonia impurities. Proceedings of the Combustion Institute, 2013, 34, 3211-3218.	2.4	72
11	Experimental and Kinetic Modeling Study of 2-Methyl-2-Butene: Allylic Hydrocarbon Kinetics. Journal of Physical Chemistry A, 2015, 119, 7462-7480.	1.1	62
12	Experimental study of soot formation from a diesel fuel surrogate in a shock tube. Combustion and Flame, 2009, 156, 1576-1586.	2.8	61
13	Shock-induced ignition of methane sensitized by NO2 and N2O. Combustion and Flame, 2015, 162, 3053-3070.	2.8	60
14	Effects of N2O addition on the ignition of H2â€“O2 mixtures: Experimental and detailed kinetic modeling study. International Journal of Hydrogen Energy, 2012, 37, 15393-15405.	3.8	53
15	An experimental and modeling study of ammonia pyrolysis. Combustion and Flame, 2022, 235, 111694.	2.8	48
16	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.	1.2	47
17	Shock-tube water time-histories and ignition delay time measurements for H2S near atmospheric pressure. Proceedings of the Combustion Institute, 2017, 36, 4019-4027.	2.4	46
18	Nitromethane ignition behind reflected shock waves: Experimental and numerical study. Fuel, 2016, 182, 597-612.	3.4	45

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19	Experimental study of ethanol oxidation behind reflected shock waves: Ignition delay time and H2O laser-absorption measurements. Combustion and Flame, 2019, 208, 313-326.	2.8	38
20	Assessment of modern detailed kinetics mechanisms to predict CO formation from methane combustion using shock-tube laser-absorption measurements. Fuel, 2019, 236, 1164-1180.	3.4	34
21	Effects of H2S addition on hydrogen ignition behind reflected shock waves: Experiments and modeling. Combustion and Flame, 2014, 161, 23-36.	2.8	33
22	Experimental and modeling study on the effects of dimethyl methylphosphonate (DMMP) addition on H2, CH4, and C2H4 ignition. Combustion and Flame, 2018, 191, 320-334.	2.8	27
23	Laminar flame speeds of DEMP, DMMP, and TEP added to H2- and CH4-air mixtures. Proceedings of the Combustion Institute, 2019, 37, 3775-3781.	2.4	27
24	Shock-tube laser absorption measurements of N2O time histories during ammonia oxidation. Fuel Communications, 2022, 10, 100050.	2.0	23
25	Rate Determination of the CO₂* Chemiluminescence Reaction CO + O + M CO₂* + M. International Journal of Chemical Kinetics, 2015, 47, 50-72.	1.0	22
26	Ignition delay times, laminar flame speeds, and species time-histories in the H2S/CH4 system at atmospheric pressure. Proceedings of the Combustion Institute, 2019, 37, 735-742.	2.4	22
27	Ethanol pyrolysis kinetics using H2O time history measurements behind reflected shock waves. Proceedings of the Combustion Institute, 2019, 37, 239-247.	2.4	19
28	Experimental Investigation of the Combustion Properties of an Average Thermal Runaway Gas Mixture from Li-Ion Batteries. Energy & Fuels, 2022, 36, 3247-3258.	2.5	19
29	The unimportance of the reaction H2â€¯+â€¯N2O â‡† H2Oâ€¯+â€¯N2: A shock-tube study using H2O time histories and ignition delay times. Combustion and Flame, 2018, 196, 478-486.	2.8	18
30	A Shock-Tube Autoignition Study of Jet, Rocket, and Diesel Fuels. Energy & Fuels, 2019, 33, 2516-2525.	2.5	18
31	Numerical Study on the Effect of Real Syngas Compositions on Ignition Delay Times and Laminar Flame Speeds at Gas Turbine Conditions. Journal of Engineering for Gas Turbines and Power, 2014, 136, .	0.5	17
32	A comprehensive experimental and kinetic modeling study of 1-hexene. Combustion and Flame, 2021, 232, 111516.	2.8	13
33	Experimental and Chemical Kinetics Study of the Effects of Halon 1211 (CF₂BrCl) on the Laminar Flame Speed and Ignition of Light Hydrocarbons. Journal of Physical Chemistry A, 2015, 119, 7611-7626.	1.1	12
34	H₂O time histories in the H₂â€NO₂ system for validation of NOx hydrocarbon kinetics mechanisms. International Journal of Chemical Kinetics, 2019, 51, 669-678.	1.0	11
35	Shock-Tube Laser Absorption Measurements of CO and H2O during Iso-Octane Combustion. Energy & Fuels, 2020, 34, 7533-7544.	2.5	11
36	A comprehensive experimental and modeling study of n-propylcyclohexane oxidation. Combustion and Flame, 2022, 238, 111944.	2.8	10

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37	Ignition delay time and laminar flame speed measurements of mixtures containing diisopropyl-methylphosphonate (DIMP). Combustion and Flame, 2020, 215, 66-77.	2.8	9
38	Shock-tube studies of Sarin surrogates. Shock Waves, 2019, 29, 441-449.	1.0	8
39	An Experimental Kinetics Study of Isopropanol Pyrolysis and Oxidation behind Reflected Shock Waves. Energies, 2021, 14, 6808.	1.6	8
40	Shock-tube spectroscopic CO and H2O measurements during 2-methyl-1-butene combustion and chemical kinetics modeling. Combustion and Flame, 2022, 238, 111919.	2.8	8
41	Soot formation from a distillation cut of a Fischerâ€“Tropsch diesel fuel: A shock tube study. Combustion and Flame, 2012, 159, 2192-2201.	2.8	7
42	Nitromethane pyrolysis in shock tubes and a micro flow reactor with a controlled temperature profile. Proceedings of the Combustion Institute, 2021, 38, 1007-1015.	2.4	7
43	Shockâ€tube spectroscopic water measurements and detailed kinetics modeling of 1â€pentene and 3â€methylâ€1â€butene. International Journal of Chemical Kinetics, 2021, 53, 67-83.	1.0	7
44	Ignition Delay Time Experiments for Natural Gas/Hydrogen Blends at Elevated Pressures. , 2013, , .		4
45	Isopropanol dehydration reaction rate kinetics measurement using H₂O time histories. International Journal of Chemical Kinetics, 2021, 53, 536-547.	1.0	4
46	A Shock-Tube and Chemical Kinetics Model Investigation Encompassing all Five Pentene Isomers. Fuel, 2022, 323, 124223.	3.4	4
47	The Effect of Impurities on Ignition Delay Times and Laminar Flame Speeds of Syngas Mixtures at Gas Turbine Conditions. , 2014, , .		3
48	Assessing NO2-Hydrocarbon Interactions during Combustion of NO2/Alkane/Ar Mixtures in a Shock Tube Using CO Time Histories. Fuels, 2022, 3, 1-14.	1.3	3
49	Numerical Study on the Effect of Real Syngas Compositions on Ignition Delay Times and Laminar Flame Speeds at Gas Turbine Conditions. , 2013, , .		2
50	Assessing the Predictions of A NOx Kinetic Mechanism on Recent Hydrogen and Syngas Experimental Data. The Proceedings of the International Symposium on Diagnostics and Modeling of Combustion in Internal Combustion Engines, 2017, 2017.9, A307.	0.1	2
51	A Shock-Tube Study of the Rate Constant of PH3 + M â‡„ PH2 + H + M (M = Ar) Using PH3 Laser Absorption. Journal of Physical Chemistry A, 2020, 124, 7380-7387.	1.1	1
52	Experimental study of the formation of CO during ethanol pyrolysis and dry reforming with CO2. Applications in Energy and Combustion Science, 2022, 11, 100076.	0.9	0