Remy Mevel

List of Publications by Year
in descending order

64 papers	1,258 citations	361045 20 h-index	414034 32 g-index
65 all docs	65 docs citations	65 times ranked	512 citing authors

#	Article	IF	Citations
1	Hydrogenâ€“nitrous oxide delay times: Shock tube experimental study and kinetic modelling. Proceedings of the Combustion Institute, 2009, 32, 359-366.	2.4	112
2	Critical energy for direct initiation of spherical detonations in H2/N2O/Ar mixtures. International Journal of Hydrogen Energy, 2011, 36, 5707-5716.	3.8	70
3	Spherical expanding flames in H2â€“N2Oâ€“Ar mixtures: flame speed measurements and kinetic modeling. International Journal of Hydrogen Energy, 2009, 34, 9007-9018.	3.8	52
4	Flame burning speeds and combustion characteristics of undiluted and nitrogen-diluted hydrogenâ€“nitrous oxide mixtures. International Journal of Hydrogen Energy, 2011, 36, 10107-10116.	3.8	49
5	A study of N₂O decomposition rate constant at high temperature: Application to the reduction of nitrous oxide by hydrogen. International Journal of Chemical Kinetics, 2009, 41, 357-375.	1.0	48
6	Ignition delay-time behind reflected shock waves of small hydrocarbonsâ€“nitrous oxide(â€“oxygen) mixtures. Shock Waves, 2015, 25, 217-229.	1.0	42
7	Detonation in hydrogenâ€“nitrous oxideâ€“diluent mixtures: An experimental and numerical study. Combustion and Flame, 2015, 162, 1638-1649.	2.8	40
8	Detonation wave diffraction in H2â€“O2â€“Ar mixtures. Proceedings of the Combustion Institute, 2017, 36, 2781-2789.	2.4	40
9	A chemical kinetic study of the oxidation of silane by nitrous oxide, nitric oxide and oxygen. Proceedings of the Combustion Institute, 2011, 33, 485-492.	2.4	38
10	Induction Delay Times and Detonation Cell Size Prediction of Hydrogen-Nitrous Oxide-Diluent Mixtures. Combustion Science and Technology, 2008, 180, 1858-1875.	1.2	35
11	Application of a laser induced fluorescence model to the numerical simulation of detonation waves in hydrogenâ€“oxygenâ€“diluent mixtures. International Journal of Hydrogen Energy, 2014, 39, 6044-6060.	3.8	34
12	Absorption cross section at 3.39Î¼m of alkanes, aromatics and substituted hydrocarbons. Chemical Physics Letters, 2012, 531, 22-27.	1.2	31
13	Hot surface ignition of stoichiometric hydrogen-air mixtures. International Journal of Hydrogen Energy, 2017, 42, 7393-7403.	3.8	31
14	Experimental study of minimum ignition energy of lean H2-N2O mixtures. Proceedings of the Combustion Institute, 2013, 34, 895-902.	2.4	29
15	Numerical study of the detonation structure in rich H2â^'NO2/N2O4 and very lean H2â^'N2O mixtures. Shock Waves, 2011, 21, 85-99.	1.0	28
16	Experimental and numerical study on moving hot particle ignition. Combustion and Flame, 2018, 192, 495-506.	2.8	27
17	The effect of heating rates on low temperature hexane air combustion. Fuel, 2012, 96, 392-403.	3.4	25
18	Low temperature oxidation of n-hexane in a flow reactor. Fuel, 2014, 126, 282-293.	3.4	25

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19	Ignition and chemical kinetics of acroleinâ€“oxygenâ€“argon mixtures behind reflected shock waves. Fuel, 2014, 135, 498-508.	3.4	24
20	Dynamics of excited hydroxyl radicals in hydrogen-based mixtures behind reflected shock waves. Proceedings of the Combustion Institute, 2013, 34, 677-684.	2.4	23
21	Role of low-temperature chemistry in detonation of n-heptane/oxygen/diluent mixtures. Combustion and Flame, 2018, 193, 463-470.	2.8	23
22	Structure of detonation propagating in lean and rich dimethyl etherâ€“oxygen mixtures. Shock Waves, 2018, 28, 955-966.	1.0	22
23	Fundamental combustion properties of oxygen enriched hydrogen/air mixtures relevant to safety analysis: Experimental and simulation study. International Journal of Hydrogen Energy, 2016, 41, 6905-6916.	3.8	19
24	Dynamics of ignition of stoichiometric hydrogen-air mixtures by moving heated particles. International Journal of Hydrogen Energy, 2017, 42, 7380-7392.	3.8	19
25	An updated reaction model for the high-temperature pyrolysis and oxidation of acetaldehyde. Fuel, 2018, 217, 226-239.	3.4	19
26	Effects of differential diffusion on ignition of stoichiometric hydrogen-air by moving hot spheres. Proceedings of the Combustion Institute, 2017, 36, 1155-1163.	2.4	18
27	Ignition characteristics of dual-fuel methane-n-hexane-oxygen-diluent mixtures in a rapid compression machine and a shock tube. Fuel, 2019, 249, 379-391.	3.4	18
28	Oxygen atom kinetics in silaneâ€“hydrogenâ€“nitrous oxide mixtures behind reflected shock waves. Chemical Physics Letters, 2010, 500, 223-228.	1.2	17
29	Ignition of fuelâ€“air mixtures from a hot circular cylinder. Combustion and Flame, 2017, 185, 265-277.	2.8	17
30	Experimental and numerical study of the ignition of hydrogen-air mixtures by a localized stationary hot surface. International Journal of Heat and Fluid Flow, 2019, 76, 154-169.	1.1	17
31	Hot Surface Ignition of <i>n</i>-Hexane Mixtures Using Simplified Kinetics. Combustion Science and Technology, 2016, 188, 2060-2076.	1.2	14
32	On the self-similarity of diffracting gaseous detonations and the critical channel width problem. Physics of Fluids, 2021, 33, .	1.6	14
33	Assessment of H2-CH4-air mixtures oxidation kinetic models used in combustion. International Journal of Hydrogen Energy, 2012, 37, 698-714.	3.8	13
34	Spherically expanding flame in silaneâ€“hydrogenâ€“nitrous oxideâ€“argon mixtures. Combustion and Flame, 2020, 221, 150-159.	2.8	13
35	Correction of reaction models using collision limit violation analyses: Application to a silane reaction model. Combustion and Flame, 2020, 217, 346-359.	2.8	13
36	Effect of incident laser sheet orientation on the OH-PLIF imaging of detonations. Shock Waves, 2020, 30, 689-702.	1.0	12

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37	Effect of oxygen atom precursors addition on LTC-affected detonation in $${hbox {DME}}{-}{hbox {O}}_{2}{-}{hbox {CO}}_{2}$$ mixtures. Shock Waves, 2020, 30, 799-807.	1.0	12
38	Effect of the excitation line on hydroxyl radical imaging by laser induced fluorescence in hydrogen detonations. Combustion and Flame, 2021, 229, 111399.	2.8	12
39	Effect of the reactor model on steady detonation modeling. Shock Waves, 2021, 31, 323-335.	1.0	11
40	Effect of 2-step energy release on direct detonation initiation by a point energy source in a rich H2â€“NO2/N2O4 mixture. Combustion and Flame, 2020, 222, 317-325.	2.8	10
41	Current status of the high-temperature kinetic models of silane: Part I. Pyrolysis. Combustion and Flame, 2021, 227, 526-537.	2.8	10
42	Tailored mixture properties for accurate laminar flame speed measurement from spherically expanding flames: Application to H<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>/O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>/N<mml:math xmlns:mml="http://www.w3.org/1998/Ma	2.8	10
43	Shock wave and flame front induced detonation in a rapid compression machine. Shock Waves, 2018, 28, 1109-1116.	1.0	9
44	Effect of volumetric expansion on shock-induced ignition of H2â€“NO2/N2O4 mixtures. Combustion and Flame, 2020, 215, 425-436.	2.8	9
45	Unsteady propagation of detonation with multi-stage heat release. Fuel, 2021, 296, 120666.	3.4	9
46	High-speed OH-PLIF imaging of deflagration-to-detonation transition in H2â€“air mixtures. Experiments in Fluids, 2016, 57, 1.	1.1	8
47	Ignition of hydrogen-air mixtures under volumetric expansion. Proceedings of the Combustion Institute, 2019, 37, 3503-3511.	2.4	8
48	Elementary kinetics for gas phase combustion of SiCl4 based mixtures. Proceedings of the Combustion Institute, 2011, 33, 477-484.	2.4	7
49	Chemical Kinetics of n-Hexane-Air Atmospheres in the Boundary Layer of a Moving Hot Sphere. Combustion Science and Technology, 2016, 188, 2267-2283.	1.2	7
50	Oxidation of n-hexane in the vicinity of the auto-ignition temperature. Fuel, 2019, 236, 373-381.	3.4	7
51	Effect of hydroxyl radical precursor addition on LTC-affected detonation in DMEâ€“$$hbox {O}_{{2}}$$â€“$$hbox {CO}_{{2}}$$ mixtures. Shock Waves, 2020, 30, 789-798.	1.0	7
52	Combustion of silane-nitrous oxide-argon mixtures: Analysis of laminar flame propagation and condensed products. Proceedings of the Combustion Institute, 2021, 38, 2235-2245.	2.4	7
53	Modeling of Rayleigh scattering imaging of detonation waves: Quantum computation of Rayleigh cross-sections and real diagnostic effects. Combustion and Flame, 2015, 162, 2191-2199.	2.8	6
54	Models for shock-induced ignition evaluated by detailed chemical kinetics for hydrogen/air in the context of deflagration-to-detonation transition. Journal of Loss Prevention in the Process Industries, 2017, 49, 731-738.	1.7	5

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55	Optical regime diagram of the shock tube/pulsed laser-induced fluorescence imaging technique. Chemical Physics Letters, 2019, 730, 283-288.	1.2	5
56	Numerical study of the transition between slow reaction and ignition in a cylindrical vessel. Combustion and Flame, 2019, 204, 116-136.	2.8	5
57	Current status of the high-temperature kinetic models of silane: Part II. Oxidation. Combustion and Flame, 2021, 227, 538-549.	2.8	5
58	Direct detonation initiation: A comparison between the critical curvature and critical decay rate models. Physics of Fluids, 2021, 33, .	1.6	5
59	Measurement of the absorption cross sections of SiCl4, SiCl3, SiCl2 and Cl at H Lyman- wavelength. Chemical Physics Letters, 2013, 561-562, 31-35.	1.2	3
60	A chemically consistent rate constant for the reaction of nitrogen dioxide with the oxygen atom. Physical Chemistry Chemical Physics, 2021, 23, 585-596.	1.3	3
61	Ray-tracking methods for characterizing the dynamics of curved detonation. Physics of Fluids, 2022, 34, .	1.6	3
62	Fourier and wavelet transform analysis of wavelength modulation spectroscopy signal. Applied Physics B: Lasers and Optics, 2022, 128, .	1.1	2
63	Shock wave refraction patterns at a slowâ€"fast gasâ€"gas interface at superknock relevant conditions. Physics of Fluids, 2021, 33, 116101.	1.6	1
64	Modeling of spontaneous Raman scattering for detonation wave imaging. Physics of Fluids, 2021, 33, 126115.	1.6	1