Nabiha Chaumeix

List of Publications by Year
in descending order

93 papers	2,693 citations	185998 28 h-index	197535 49 g-index
93 all docs	93 docs citations	93 times ranked	1625 citing authors

#	Article	IF	Citations
1	Characterization of the effects of pressure and hydrogen concentration on laminar burning velocities of methaneâ€“hydrogenâ€“air mixtures. Proceedings of the Combustion Institute, 2005, 30, 201-208.	2.4	343
2	Laminar flame velocity determination for H2â€“airâ€“Heâ€“CO2 mixtures using the spherical bomb method. Experimental Thermal and Fluid Science, 2003, 27, 385-393.	1.5	206
3	Burning velocities of dimethyl ether and air. Combustion and Flame, 2001, 125, 1329-1340.	2.8	141
4	Hydrogenâ€“nitrous oxide delay times: Shock tube experimental study and kinetic modelling. Proceedings of the Combustion Institute, 2009, 32, 359-366.	2.4	112
5	The combustion chemistry of a fuel tracer: Measured flame speeds and ignition delays and a detailed chemical kinetic model for the oxidation of acetone. Combustion and Flame, 2009, 156, 494-504.	2.8	98
6	Experimental and modelling study of gasoline surrogate mixtures oxidation in jet stirred reactor and shock tube. Proceedings of the Combustion Institute, 2007, 31, 385-391.	2.4	73
7	Chemical Kinetic Model for Monomethylhydrazine/Nitrogen Tetroxide Gas Phase Combustion and Hypergolic Ignition. Journal of Propulsion and Power, 2004, 20, 87-92.	1.3	66
8	Experimental study of soot formation from a diesel fuel surrogate in a shock tube. Combustion and Flame, 2009, 156, 1576-1586.	2.8	61
9	Experimental and modeling study of 1-hexene oxidation behind reflected shock waves. Proceedings of the Combustion Institute, 2005, 30, 1137-1145.	2.4	57
10	Kinetics of 1-hexene oxidation in a JSR and a shock tube: Experimental and modeling study. Combustion and Flame, 2006, 147, 67-78.	2.8	55
11	Comparison between FLACS explosion simulations and experiments conducted in a PWR Steam Generator casemate scale down with hydrogen gradients. Nuclear Engineering and Design, 2012, 245, 189-196.	0.8	53
12	Combustion Characteristics of Physically Mixed 40 nm Aluminum/Copper Oxide Nanothermites Using Laser Ignition. Frontiers in Chemistry, 2018, 6, 465.	1.8	53
13	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
14	Experimental study of the kinetics of ethanol pyrolysis and oxidation behind reflected shock waves and in laminar flames. Proceedings of the Combustion Institute, 2015, 35, 393-400.	2.4	52
15	Laminar flame speeds of pentanol isomers: An experimental and modeling study. Combustion and Flame, 2016, 166, 1-18.	2.8	51
16	Experimental study on turbulent expanding flames of lean hydrogen/air mixtures. Proceedings of the Combustion Institute, 2017, 36, 2823-2832.	2.4	51
17	Laminar flame speeds of n -decane, n -butylbenzene, and n -propylcyclohexane mixtures. Proceedings of the Combustion Institute, 2015, 35, 671-678.	2.4	49
18	Experimental and Chemical Kinetic Modeling Study of 3-Pentanone Oxidation. Journal of Physical Chemistry A, 2010, 114, 12176-12186.	1.1	45

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19	Experimental study of the effect of CF3I addition on the ignition delay time and laminar flame speed of methane, ethylene, and propane. Proceedings of the Combustion Institute, 2015, 35, 2731-2739.	2.4	41
20	Detonation in hydrogenâ€"nitrous oxideâ€"diluent mixtures: An experimental and numerical study. Combustion and Flame, 2015, 162, 1638-1649.	2.8	40
21	Visualizations of Gas-Phase NTO/MMH Reactivity. Journal of Propulsion and Power, 2006, 22, 120-126.	1.3	39
22	Role of chemical kinetics on the detonation properties of hydrogen /natural gas/air mixtures. International Journal of Hydrogen Energy, 2007, 32, 2216-2226.	3.8	39
23	Characterization of adsorbed species on soot formed behind reflected shock waves. Proceedings of the Combustion Institute, 2007, 31, 511-519.	2.4	39
24	Soot formation from heavy hydrocarbons behind reflected shock waves. Proceedings of the Combustion Institute, 2000, 28, 2523-2529.	2.4	37
25	Experimental and Modeling Study of n-Propylcyclohexane Oxidation under Engine-relevant Conditions. Energy & Fuels, 2009, 23, 2453-2466.	2.5	37
26	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
27	Search for Green Hypergolic Propellants: Gas-Phase Ethanol/Nitrogen Tetroxide Reactivity. Journal of Propulsion and Power, 2005, 21, 1057-1061.	1.3	32
28	Experimental study of laminar and turbulent flame speed of a spherical flame in a fan-stirred closed vessel for hydrogen safety application. Nuclear Engineering and Design, 2017, 312, 214-227.	0.8	31
29	Combustion properties of H2/N2/O2/steam mixtures. Proceedings of the Combustion Institute, 2019, 37, 1537-1546.	2.4	27
30	Effects of water sprays on flame propagation in hydrogen/air/steam mixtures. Proceedings of the Combustion Institute, 2015, 35, 2715-2722.	2.4	25
31	Laminar flame speed and shock-tube multi-species laser absorption measurements of Dimethyl Carbonate oxidation and pyrolysis near 1â€¯atm. Proceedings of the Combustion Institute, 2021, 38, 977-985.	2.4	24
32	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
33	Polycyclic Aromatic Hydrocarbon Growth by Diradical Cycloaddition/Fragmentation. Journal of Physical Chemistry A, 2017, 121, 5921-5931.	1.1	23
34	An experimental and kinetic modeling study of phenylacetylene decomposition and the reactions with acetylene/ethylene under shock tube pyrolysis conditions. Combustion and Flame, 2020, 220, 257-271.	2.8	23
35	Probing PAH formation chemical kinetics from benzene and toluene pyrolysis in a single-pulse shock tube. Proceedings of the Combustion Institute, 2021, 38, 891-900.	2.4	23
36	Comparative Study on Cyclohexane and Decalin Oxidation. Energy & Fuels, 2014, 28, 714-724.	2.5	22

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37	Combustion properties of n-heptane/hydrogen mixtures. International Journal of Hydrogen Energy, 2019, 44, 2039-2052.	3.8	22
38	On the use of spray systems: An example of R&D work in hydrogen safety for nuclear applications. International Journal of Hydrogen Energy, 2009, 34, 5970-5975.	3.8	21
39	Biologically derived diesel fuel and NO formation. Combustion and Flame, 2011, 158, 2302-2313.	2.8	21
40	SARNET hydrogen deflagration benchmarks: Main outcomes and conclusions. Annals of Nuclear Energy, 2014, 74, 143-152.	0.9	21
41	Ignition by Electric Spark and by Laser-Induced Spark of Ultra-Lean CH4/Air and CH4/CO2/Air Mixtures at High Pressure. Combustion Science and Technology, 2014, 186, 1-23.	1.2	20
42	Flame propagation speed and Markstein length of spherically expanding flames: Assessment of extrapolation and measurement techniques. Proceedings of the Combustion Institute, 2019, 37, 1521-1528.	2.4	20
43	Ethyl Tertiary Butyl Ether Ignition and Combustion Using a Shock Tube and Spherical Bomb. Energy & Fuels, 2008, 22, 3701-3708.	2.5	19
44	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
45	Ignition and oxidation of 1â€hexene/toluene mixtures in a shock tube and a jetâ€stirred reactor: Experimental and kinetic modeling study. International Journal of Chemical Kinetics, 2007, 39, 518-538.	1.0	17
46	An experimental and kinetic modeling study of benzene pyrolysis with C2â^'C3 unsaturated hydrocarbons. Combustion and Flame, 2022, 237, 111858.	2.8	17
47	Laser desorptionâ€“ionization time-of-flight mass spectrometry for analyses of heavy hydrocarbons adsorbed on soot formed behind reflected shock waves. Proceedings of the Combustion Institute, 2009, 32, 971-978.	2.4	15
48	A comparative kinetic study of C8â€“C10 linear alkylbenzenes pyrolysis in a single-pulse shock tube. Combustion and Flame, 2020, 221, 136-149.	2.8	15
49	Flammability Limits of Hydrogen-Air Mixtures. Nuclear Technology, 2012, 178, 5-16.	0.7	14
50	Hydrogen explosion in ITER: Effect of oxygen content on flame propagation of H2/O2/N2 mixtures. Fusion Engineering and Design, 2013, 88, 2669-2673.	1.0	14
51	Experimental study and calculations of nitric oxide absorption in the Î³(0,0) and Î³(1,0) bands for strong temperature conditions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2005, 90, 275-289.	1.1	13
52	Scattering/extinction measurements of soot formation in a shock tube. Experimental Thermal and Fluid Science, 2008, 32, 1354-1362.	1.5	13
53	Experimental and modeling study of styrene oxidation in spherical reactor and shock tube. Combustion and Flame, 2016, 173, 425-440.	2.8	13
54	Spherically expanding flame in silaneâ€“hydrogenâ€“nitrous oxideâ€“argon mixtures. Combustion and Flame, 2020, 221, 150-159.	2.8	13

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55	Detailed experimental and kinetic modeling study of toluene/C2 pyrolysis in a single-pulse shock tube. Combustion and Flame, 2021, 226, 129-142.	2.8	13
56	Ignition of a Combustible Mixture by a Hot Unsteady Gas Jet. Combustion Science and Technology, 1995, 104, 273-285.	1.2	12
57	Fast-flame limit for hydrogen/methane-air mixtures. Proceedings of the Combustion Institute, 2019, 37, 3661-3668.	2.4	12
58	Laminar Flame Speeds and Ignition Delay Times of Gasoline/Air and Gasoline/Alcohol/Air Mixtures: The Effects of Heavy Alcohol Compared to Light Alcohol. Energy & Fuels, 2021, 35, 14913-14923.	2.5	12
59	A comprehensive kinetic study on the speciation from propylene and propyne pyrolysis in a single-pulse shock tube. Combustion and Flame, 2021, 231, 111485.	2.8	11
60	Operational behavior of a passive auto-catalytic recombiner under low pressure conditions. Fusion Engineering and Design, 2017, 124, 1281-1286.	1.0	10
61	Prevention of hydrogen accumulation inside the vacuum vessel pressure suppression system of the ITER facility by means of passive auto-catalytic recombiners. International Journal of Hydrogen Energy, 2019, 44, 8971-8980.	3.8	10
62	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
63	Ignition Delays of Heptane/O2/Ar Mixtures in the 1300-1600 K Temperature Range. Journal of Propulsion and Power, 2004, 20, 415-426.	1.3	9
64	Laser-assisted ignition and combustion characteristics of consolidated aluminum nanoparticles. Journal of Nanoparticle Research, 2016, 18, 1.	0.8	9
65	Influence of initial pressure on hydrogen/air flame acceleration during severe accident in NPP. International Journal of Hydrogen Energy, 2019, 44, 9009-9017.	3.8	8
66	Pyrolysis of ethanol studied in a new high-repetition-rate shock tube coupled to synchrotron-based double imaging photoelectron/photoion coincidence spectroscopy. Combustion and Flame, 2021, 226, 53-68.	2.8	8
67	Detonation properties of stoichiometric gaseous n-heptane/oxygen/argon mixtures. Proceedings of the Combustion Institute, 2005, 30, 1925-1931.	2.4	7
68	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
69	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
70	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
71	The effects of addition of carbon dioxide and water vapor on the dynamic behavior of spherically expanding hydrogen/air premixed flames. Journal of Thermal Science and Technology, 2021, 16, JTST0026-JTST0026.	0.6	7
72	Influences of propylene/propyne addition on toluene pyrolysis in a single-pulse shock tube. Combustion and Flame, 2022, 236, 111799.	2.8	7

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73	The Onset of Detonation Behind Shock Waves of Moderate Intensity in Gas Phase. Combustion Science and Technology, 2014, 186, 607-620.	1.2	6
74	Laminar flame speeds and ignition delay times for isopropyl nitrate and propane blends. Combustion and Flame, 2022, 242, 112187.	2.8	6
75	Using RON Synergistic Effects to Formulate Fuels for Better Fuel Economy and Lower CO2 Emissions. , 0, , .		5
76	Autoignition of n-Decane/n-Butylbenzene/n-Propylcyclohexane Mixtures and the Effects of the Exhaust Gas Recirculation. Combustion Science and Technology, 2014, 186, 1536-1551.	1.2	4
77	Evaluation of different models for turbulent combustion of hydrogen-air mixtures. Large Eddy Simulation of a LOVA sequence with hydrogen deflagration in ITER Vacuum Vessel. Fusion Engineering and Design, 2020, 161, 111901.	1.0	4
78	Insights into pyrolysis kinetics of xylene isomers behind reflected shock waves. Combustion and Flame, 2022, 244, 112247.	2.8	4
79	Thermodynamic data of known volatile organic compounds (VOCs) in Rosmarinus officinalis : Implications for forest fire modeling. Computational and Theoretical Chemistry, 2015, 1073, 27-33.	1.1	3
80	Effect of the initial temperature and composition of a hot transient jet on the ignition of H2-air-diluent mixtures. Proceedings of the Combustion Institute, 1994, 25, 1539-1545.	0.3	2
81	Numerical assessment of accurate measurements of laminar flame speed. AIP Conference Proceedings, 2016, , .	0.3	2
82	Reprint of: Pyrolysis of ethanol studied in a new high-repetition-rate shock tube coupled to synchrotron-based double imaging photoelectron/photoion coincidence spectroscopy. Combustion and Flame, 2021, 224, 150-165.	2.8	2
83	Mathematical Modelling of Turbulent Combustion of Two-Phase Mixtures of Gas and Solid Particles with a Eulerianâ€"Eulerian Approach: The Case of Hydrogen Combustion in the Presence of Graphite Particles. Mathematics, 2021, 9, 2017.	1.1	2
84	Unsupervised analysis of experiments of laminar flame propagation in a spherical enclosure. AIP Conference Proceedings, 2016, , .	0.3	1
85	Infrared Absorption Measurements of the Velocity of a Premixed Hydrogen/Air Flame Propagating in an Obstacle-Laden Tube. Combustion Science and Technology, 2019, 191, 696-710.	1.2	1
86	Soot formation from heavy hydrocarbons representatives of diesel fuel. , 2001, , .		0
87	Effect of a Heated Electrode On Lean Propane-Air Flame Development. , 2001, , .		0
88	Instabilities of the Void Region in a Dense Cloud of Grown Dust Particles. AIP Conference Proceedings, 2005, , .	0.3	0
89	In Situ Gas Monitoring by Fiber-Coupled Raman Spectrometry for Hâ‚‚-Risk Management in Nuclear Containment During a Severe Nuclear Accident. IEEE Transactions on Nuclear Science, 2020, 67, 617-624.	1.2	0
90	Capabilities and limitations of Large Eddy Simulation with perfectly stirred reactor assumption for engineering applications of unsteady, hydrogen combustion sequences. Engineering Applications of Computational Fluid Mechanics, 2021, 15, 1452-1472.	1.5	0

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91	Joe V. Michael Memorial Issue. International Journal of Chemical Kinetics, 2021, 53, 687-687.	1.0	0
92	Comportement d'une bulle de gaz piÃ©gÃ©e dans un liquide soumise Ã une onde de compression. Houille Blanche, 1997, 83, 81-83.	0.3	0
93	Kinetic Shock Tubes: Recent Developments for the Study of Homogeneous and Heterogeneous Chemical Processes. , 2019, , 65-80.		0