Mustapha Fikri

List of Publications by Year
in descending order

71 papers	2,003 citations	279487 23 h-index	276539 41 g-index
71 all docs	71 docs citations	71 times ranked	1235 citing authors

#	Article	IF	Citations
1	Shock-tube study of the influence of oxygenated additives on benzene pyrolysis: Measurement of optical densities, soot inception times and comparison with simulations. Combustion and Flame, 2022, 243, 111985.	2.8	5
2	Ethanol ignition in a high-pressure shock tube: Ignition delay time and high-repetition-rate imaging measurements. Proceedings of the Combustion Institute, 2021, 38, 901-909.	2.4	14
3	Numerical Investigation of Remote Ignition in Shock Tubes. Flow, Turbulence and Combustion, 2021, 106, 471-498.	1.4	7
4	Pyrolysis of diethyl carbonate: Shock-tube and flow-reactor measurements and modeling. Proceedings of the Combustion Institute, 2021, 38, 987-996.	2.4	10
5	Plug-flow reactor and shock-tube study of the oxidation of very fuel-rich natural gas/DME/O2 mixtures. Combustion and Flame, 2021, 225, 86-103.	2.8	21
6	Determination of gas-phase absorption cross-sections of FeO in a shock tube using intracavity absorption spectroscopy near 611â€¯nm. Proceedings of the Combustion Institute, 2021, 38, 1637-1645.	2.4	8
7	Kinetics of the Thermal Decomposition of Ethylsilane: Shock-Tube and Modeling Study. Energy & Fuels, 2021, 35, 3266-3282.	2.5	5
8	Multi-line SiO fluorescence imaging in the flame synthesis of silica nanoparticles from SiCl4. Combustion and Flame, 2021, 224, 260-272.	2.8	12
9	Experimental Investigation of Ethanol Oxidation and Development of a Reduced Reaction Mechanism for a Wide Temperature Range. Energy & Fuels, 2021, 35, 14780-14792.	2.5	14
10	An experimental and modeling study on the reactivity of extremely fuel-rich methane/dimethyl ether mixtures. Combustion and Flame, 2020, 212, 107-122.	2.8	44
11	A six-compound, high performance gasoline surrogate for internal combustion engines: Experimental and numerical study of autoignition using high-pressure shock tubes. Fuel, 2020, 261, 116439.	3.4	11
12	Monitoring formaldehyde in a shock tube with a fast dual-comb spectrometer operating in the spectral range of 1740â€“1790Âcmâ€“1. Applied Physics B: Lasers and Optics, 2020, 126, 1.	1.1	11
13	Laser-based CO concentration and temperature measurements in high-pressure shock-tube studies of n-heptane partial oxidation. Applied Physics B: Lasers and Optics, 2020, 126, 1.	1.1	16
14	Studying the influence of single droplets on fuel/air ignition in a high-pressure shock tube. Review of Scientific Instruments, 2020, 91, 105107.	0.6	5
15	Flexible energy conversion and storage via high-temperature gas-phase reactions: The piston engine as a polygeneration reactor. Renewable and Sustainable Energy Reviews, 2020, 133, 110264.	8.2	31
16	CO-concentration and temperature measurements in reacting CH4/O2 mixtures doped with diethyl ether behind reflected shock waves. Combustion and Flame, 2020, 216, 194-205.	2.8	16
17	Impact of shock-tube facility-dependent effects on incident- and reflected-shock conditions over a wide range of pressures and Mach numbers. Combustion and Flame, 2020, 217, 200-211.	2.8	46
18	High-pressure shock-tube study of the ignition and product formation of fuel-rich dimethoxymethane (DMM)/air and CH4/DMM/air mixtures. Combustion and Flame, 2020, 216, 293-299.	2.8	19

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19	Shock-tube study of the decomposition of octamethylcyclotetrasiloxane and hexamethylcyclotrisiloxane. Zeitschrift Fur Physikalische Chemie, 2020, 234, 1395-1426.	1.4	6
20	High-temperature gas-phase kinetics of the thermal decomposition of tetramethoxysilane. Proceedings of the Combustion Institute, 2019, 37, 1133-1141.	2.4	10
21	Gas-phase synthesis of functional nanomaterials: Challenges to kinetics, diagnostics, and process development. Proceedings of the Combustion Institute, 2019, 37, 83-108.	2.4	92
22	The influence of hydrogen and methane on the growth of carbon particles during acetylene pyrolysis in a burnt-gas flow reactor. Proceedings of the Combustion Institute, 2019, 37, 1125-1132.	2.4	12
23	Shock-tube study of the ignition and product formation of fuel-rich CH4/air and CH4/additive/air mixtures at high pressure. Proceedings of the Combustion Institute, 2019, 37, 5705-5713.	2.4	23
24	Shock-tube study of methane pyrolysis in the context of energy-storage processes. Proceedings of the Combustion Institute, 2019, 37, 197-204.	2.4	32
25	High-Temperature Unimolecular Decomposition of Diethyl Ether: Shock-Tube and Theory Studies. Journal of Physical Chemistry A, 2019, 123, 6813-6827.	1.1	12
26	The influence of selected aromatic fluorescence tracers on the combustion kinetics of iso-octane. Fuel, 2019, 244, 559-568.	3.4	5
27	Shock-tube study of the decomposition of tetramethylsilane using gas chromatography and high-repetition-rate time-of-flight mass spectrometry. Physical Chemistry Chemical Physics, 2018, 20, 10686-10696.	1.3	13
28	Highâ€Temperature Rate Constants for H + Tetramethylsilane and H + Silane and Implications about Structureâ€"Activity Relationships for Silanes. International Journal of Chemical Kinetics, 2018, 50, 57-72.	1.0	16
29	Soot formation in shock-wave-induced pyrolysis of acetylene and benzene with H2, O2, and CH4 addition. Combustion and Flame, 2018, 198, 158-168.	2.8	24
30	Direct Measurement of High-Temperature Rate Constants of the Thermal Decomposition of Dimethoxymethane, a Shock Tube and Modeling Study. Journal of Physical Chemistry A, 2018, 122, 7559-7571.	1.1	21
31	Methodology for the investigation of ignition near hot surfaces in a high-pressure shock tube. Review of Scientific Instruments, 2018, 89, 055111.	0.6	2
32	High-Temperature Rate Constants for the Reaction of Hydrogen Atoms with Tetramethoxysilane and Reactivity Analogies between Silanes and Oxygenated Hydrocarbons. Journal of Physical Chemistry A, 2018, 122, 5289-5298.	1.1	8
33	Reaction-time-resolved measurements of laser-induced fluorescence in a shock tube with a single laser pulse. Review of Scientific Instruments, 2017, 88, 115105.	0.6	6
34	A Shock Tube and Modeling Study about Anisole Pyrolysis Using Time-Resolved CO Absorption Measurements. International Journal of Chemical Kinetics, 2017, 49, 656-667.	1.0	15
35	Ultraviolet absorption and laser-induced fluorescence of shock-heated acetylene. Proceedings of the Combustion Institute, 2017, 36, 4469-4475.	2.4	3
36	Ignition delay times of Jet A-1 fuel: Measurements in a high-pressure shock tube and a rapid compression machine. Proceedings of the Combustion Institute, 2017, 36, 3695-3703.	2.4	24

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37	Optical properties and pyrolysis of shock-heated gas-phase anisole. Proceedings of the Combustion Institute, 2017, 36, 4525-4532.	2.4	27
38	A quantum chemical and kinetics modeling study on the autoignition mechanism of diethyl ether. Proceedings of the Combustion Institute, 2017, 36, 195-202.	2.4	55
39	A single-pulse shock tube coupled with high-repetition-rate time-of-flight mass spectrometry and gas chromatography for high-temperature gas-phase kinetics studies. Review of Scientific Instruments, 2016, 87, 105103.	0.6	23
40	Shock-tube and plug-flow reactor study of the oxidation of fuel-rich CH4/O2 mixtures enhanced with additives. Combustion and Flame, 2016, 169, 307-320.	2.8	45
41	Time-resolved detection of temperature, concentration, and pressure in a shock tube by intracavity absorption spectroscopy. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	22
42	Ignition delay times of diethyl ether measured in a high-pressure shock tube and a rapid compression machine. Proceedings of the Combustion Institute, 2015, 35, 259-266.	2.4	73
43	Temporally and spectrally resolved UV absorption and laser-induced fluorescence measurements during the pyrolysis of toluene behind reflected shock waves. Applied Physics B: Lasers and Optics, 2015, 118, 295-307.	1.1	14
44	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
45	Influence of molecular hydrogen on acetylene pyrolysis: Experiment and modeling. Combustion and Flame, 2014, 161, 2263-2269.	2.8	15
46	Ignition delay times of shock-heated tetraethoxysilane, hexamethyldisiloxane, and titanium tetraisopropoxide. Chemical Physics Letters, 2014, 601, 54-58.	1.2	5
47	Experimental investigation and modeling of the kinetics of CCl4 pyrolysis behind reflected shock waves using high-repetition-rate time-of-flight mass spectrometry. Physical Chemistry Chemical Physics, 2013, 15, 2821.	1.3	10
48	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
49	High-pressure shock-tube investigation of the impact of 3-pentanone on the ignition properties of primary reference fuels. Proceedings of the Combustion Institute, 2013, 34, 393-400.	2.4	14
50	Experimental and modeling study of carbon suboxide decomposition behind reflected shock waves. Physical Chemistry Chemical Physics, 2012, 14, 1246-1252.	1.3	12
51	Synthesis of Tailored Nanoparticles in Flames: Chemical Kinetics, In Situ Diagnostics, Numerical Simulation, and Process Development. Nanoscience and Technology, 2012, , 3-48.	1.5	1
52	Investigation of the kinetics of OHâˆ— and CHâˆ— chemiluminescence in hydrocarbon oxidation behind reflected shock waves. Applied Physics B: Lasers and Optics, 2012, 107, 515-527.	1.1	34
53	The autoignition of practical fuels at HCCI conditions: High-pressure shock tube experiments and phenomenological modeling. Fuel, 2012, 93, 492-501.	3.4	59
54	Autoignition of surrogate biodiesel fuel (B30) at high pressures: Experimental and modeling kinetic study. Combustion and Flame, 2012, 159, 996-1008.	2.8	28

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55	High temperature shock-tube study of the reaction of gallium with ammonia. Physical Chemistry Chemical Physics, 2011, 13, 4149.	1.3	6
56	Auto-ignition of toluene-doped n-heptane and iso-octane/air mixtures: High-pressure shock-tube experiments and kinetics modeling. Combustion and Flame, 2011, 158, 172-178.	2.8	118
57	Ignition delay times of ethanol-containing multi-component gasoline surrogates: Shock-tube experiments and detailed modeling. Fuel, 2011, 90, 1238-1244.	3.4	92
58	A shock tube with a high-repetition-rate time-of-flight mass spectrometer for investigations of complex reaction systems. Review of Scientific Instruments, 2011, 82, 084103.	0.6	30
59	Study of the H+O+M reaction forming OHâˆ—: Kinetics of OHâˆ— chemiluminescence in hydrogen combustion systems. Combustion and Flame, 2010, 157, 1261-1273.	2.8	108
60	Measurement and Chemical Kinetics Modeling of Shock-Induced Ignition of Ethanolâˆ'Air Mixtures. Energy & Fuels, 2010, 24, 2830-2840.	2.5	80
61	Experiments and modeling of ignition delay times, flame structure and intermediate species of EHN-doped stoichiometric n-heptane/air combustion. Proceedings of the Combustion Institute, 2009, 32, 197-204.	2.4	27
62	Autoignition of gasoline surrogate mixtures at intermediate temperatures and high pressures: Experimental and numerical approaches. Proceedings of the Combustion Institute, 2009, 32, 501-508.	2.4	84
63	Discrepancies between shock tube and rapid compression machine ignition at low temperatures and high pressures. , 2009, , 739-744.		22
64	Shock-tube study of the ignition delay time of tetraethoxysilane (TEOS). , 2009, , 781-785.		1
65	Autoignition of gasoline surrogates mixtures at intermediate temperatures and high pressures. Combustion and Flame, 2008, 152, 276-281.	2.8	131
66	Time-Resolved Cavity Ringdown Measurements and Kinetic Modeling of the Pressure Dependences of the Recombination Reactions of SiH₂ with the Alkenes C₂H₄, C₃H₆, and <i>t</i>-C₄H₈. Journal of Physical Chemistry A, 2008, 112, 5636-5646.	1.1	9
67	Thermal Decomposition of Trimethylgallium Ga(CH₃)₃: A Shock-Tube Study and First-Principles Calculations. Journal of Physical Chemistry A, 2008, 112, 6330-6337.	1.1	17
68	Shock-tube study of the autoignition of n-heptane/toluene/air mixtures at intermediate temperatures and high pressures. Combustion and Flame, 2007, 149, 25-31.	2.8	115
69	Validation of the Extended Simultaneous Kinetics and Ringdown Model by Measurements of the Reaction NH2+ NO. Journal of Physical Chemistry A, 2005, 109, 4785-4795.	1.1	15
70	An extended simultaneous kinetics and ringdown model: Determination of the rate constant for the reaction SiH2â€‰+â€‰O2. Physical Chemistry Chemical Physics, 2003, 5, 4622-4630.	1.3	13
71	An experimental and theoretical study of the product distribution of the reaction CH2 (XÃŒÆ'3B1) + NO. Faraday Discussions, 2001, 119, 223-242.	1.6	24