

Mustapha Fikri

List of Publications by Year in descending order

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1235
citing authors

#	ARTICLE	IF	CITATIONS
1	Autoignition of gasoline surrogates mixtures at intermediate temperatures and high pressures. <i>Combustion and Flame</i> , 2008, 152, 276-281.	2.8	131
2	Auto-ignition of toluene-doped n-heptane and iso-octane/air mixtures: High-pressure shock-tube experiments and kinetics modeling. <i>Combustion and Flame</i> , 2011, 158, 172-178.	2.8	118
3	Shock-tube study of the autoignition of n-heptane/toluene/air mixtures at intermediate temperatures and high pressures. <i>Combustion and Flame</i> , 2007, 149, 25-31.	2.8	115
4	Study of the H+O+M reaction forming OH [•] —: Kinetics of OH [•] — chemiluminescence in hydrogen combustion systems. <i>Combustion and Flame</i> , 2010, 157, 1261-1273.	2.8	108
5	Ignition delay times of ethanol-containing multi-component gasoline surrogates: Shock-tube experiments and detailed modeling. <i>Fuel</i> , 2011, 90, 1238-1244.	3.4	92
6	Gas-phase synthesis of functional nanomaterials: Challenges to kinetics, diagnostics, and process development. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 83-108.	2.4	92
7	Autoignition of gasoline surrogate mixtures at intermediate temperatures and high pressures: Experimental and numerical approaches. <i>Proceedings of the Combustion Institute</i> , 2009, 32, 501-508.	2.4	84
8	Measurement and Chemical Kinetics Modeling of Shock-Induced Ignition of Ethanol [•] /Air Mixtures. <i>Energy & Fuels</i> , 2010, 24, 2830-2840.	2.5	80
9	Ignition delay times of diethyl ether measured in a high-pressure shock tube and a rapid compression machine. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 259-266.	2.4	73
10	The autoignition of practical fuels at HCCI conditions: High-pressure shock tube experiments and phenomenological modeling. <i>Fuel</i> , 2012, 93, 492-501.	3.4	59
11	A quantum chemical and kinetics modeling study on the autoignition mechanism of diethyl ether. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 195-202.	2.4	55
12	Experimental study of the kinetics of ethanol pyrolysis and oxidation behind reflected shock waves and in laminar flames. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 393-400.	2.4	52
13	Impact of shock-tube facility-dependent effects on incident- and reflected-shock conditions over a wide range of pressures and Mach numbers. <i>Combustion and Flame</i> , 2020, 217, 200-211.	2.8	46
14	Shock-tube and plug-flow reactor study of the oxidation of fuel-rich CH ₄ /O ₂ mixtures enhanced with additives. <i>Combustion and Flame</i> , 2016, 169, 307-320.	2.8	45
15	An experimental and modeling study on the reactivity of extremely fuel-rich methane/dimethyl ether mixtures. <i>Combustion and Flame</i> , 2020, 212, 107-122.	2.8	44
16	Investigation of the kinetics of OH [•] — and CH [•] — chemiluminescence in hydrocarbon oxidation behind reflected shock waves. <i>Applied Physics B: Lasers and Optics</i> , 2012, 107, 515-527.	1.1	34
17	Shock-tube study of methane pyrolysis in the context of energy-storage processes. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 197-204.	2.4	32
18	Flexible energy conversion and storage via high-temperature gas-phase reactions: The piston engine as a polygeneration reactor. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 133, 110264.	8.2	31

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19	A shock tube with a high-repetition-rate time-of-flight mass spectrometer for investigations of complex reaction systems. <i>Review of Scientific Instruments</i> , 2011, 82, 084103.	0.6	30
20	Autoignition of surrogate biodiesel fuel (B30) at high pressures: Experimental and modeling kinetic study. <i>Combustion and Flame</i> , 2012, 159, 996-1008.	2.8	28
21	Experiments and modeling of ignition delay times, flame structure and intermediate species of EHN-doped stoichiometric n-heptane/air combustion. <i>Proceedings of the Combustion Institute</i> , 2009, 32, 197-204.	2.4	27
22	Optical properties and pyrolysis of shock-heated gas-phase anisole. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 4525-4532.	2.4	27
23	An experimental and theoretical study of the product distribution of the reaction $\text{CH}_2(\text{X}\ddot{\text{A}}\text{E}'\text{3B1}) + \text{NO}$. <i>Faraday Discussions</i> , 2001, 119, 223-242.	1.6	24
24	Ignition delay times of Jet A-1 fuel: Measurements in a high-pressure shock tube and a rapid compression machine. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 3695-3703.	2.4	24
25	Soot formation in shock-wave-induced pyrolysis of acetylene and benzene with H_2 , O_2 , and CH_4 addition. <i>Combustion and Flame</i> , 2018, 198, 158-168.	2.8	24
26	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. <i>Review of Scientific Instruments</i> , 2016, 87, 105103.	0.6	23
27	Shock-tube study of the ignition and product formation of fuel-rich CH_4/air and $\text{CH}_4/\text{additive}/\text{air}$ mixtures at high pressure. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 5705-5713.	2.4	23
28	Time-resolved detection of temperature, concentration, and pressure in a shock tube by intracavity absorption spectroscopy. <i>Applied Physics B: Lasers and Optics</i> , 2016, 122, 1.	1.1	22
29	Discrepancies between shock tube and rapid compression machine ignition at low temperatures and high pressures. , 2009, , 739-744.		22
30	Direct Measurement of High-Temperature Rate Constants of the Thermal Decomposition of Dimethoxymethane, a Shock Tube and Modeling Study. <i>Journal of Physical Chemistry A</i> , 2018, 122, 7559-7571.	1.1	21
31	Plug-flow reactor and shock-tube study of the oxidation of very fuel-rich natural gas/DME/ O_2 mixtures. <i>Combustion and Flame</i> , 2021, 225, 86-103.	2.8	21
32	High-pressure shock-tube study of the ignition and product formation of fuel-rich dimethoxymethane (DMM)/air and $\text{CH}_4/\text{DMM}/\text{air}$ mixtures. <i>Combustion and Flame</i> , 2020, 216, 293-299.	2.8	19
33	Thermal Decomposition of Trimethylgallium $\text{Ga}(\text{CH}_3)_3$: A Shock-Tube Study and First-Principles Calculations. <i>Journal of Physical Chemistry A</i> , 2008, 112, 6330-6337.	1.1	17
34	High-temperature Rate Constants for $\text{H} + \text{Tetramethylsilane}$ and $\text{H} + \text{Silane}$ and Implications about Structure-Activity Relationships for Silanes. <i>International Journal of Chemical Kinetics</i> , 2018, 50, 57-72.	1.0	16
35	Laser-based CO concentration and temperature measurements in high-pressure shock-tube studies of n-heptane partial oxidation. <i>Applied Physics B: Lasers and Optics</i> , 2020, 126, 1.	1.1	16
36	CO-concentration and temperature measurements in reacting CH_4/O_2 mixtures doped with diethyl ether behind reflected shock waves. <i>Combustion and Flame</i> , 2020, 216, 194-205.	2.8	16

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37	Validation of the Extended Simultaneous Kinetics and Ringdown Model by Measurements of the Reaction $\text{NH}_2 + \text{NO}$. <i>Journal of Physical Chemistry A</i> , 2005, 109, 4785-4795.	1.1	15
38	Influence of molecular hydrogen on acetylene pyrolysis: Experiment and modeling. <i>Combustion and Flame</i> , 2014, 161, 2263-2269.	2.8	15
39	A Shock Tube and Modeling Study about Anisole Pyrolysis Using Time-Resolved CO Absorption Measurements. <i>International Journal of Chemical Kinetics</i> , 2017, 49, 656-667.	1.0	15
40	High-pressure shock-tube investigation of the impact of 3-pentanone on the ignition properties of primary reference fuels. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 393-400.	2.4	14
41	Temporally and spectrally resolved UV absorption and laser-induced fluorescence measurements during the pyrolysis of toluene behind reflected shock waves. <i>Applied Physics B: Lasers and Optics</i> , 2015, 118, 295-307.	1.1	14
42	Ethanol ignition in a high-pressure shock tube: Ignition delay time and high-repetition-rate imaging measurements. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 901-909.	2.4	14
43	Experimental Investigation of Ethanol Oxidation and Development of a Reduced Reaction Mechanism for a Wide Temperature Range. <i>Energy & Fuels</i> , 2021, 35, 14780-14792.	2.5	14
44	An extended simultaneous kinetics and ringdown model: Determination of the rate constant for the reaction $\text{SiH}_2 + \text{O}_2$. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 4622-4630.	1.3	13
45	Shock-tube study of the decomposition of tetramethylsilane using gas chromatography and high-repetition-rate time-of-flight mass spectrometry. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 10686-10696.	1.3	13
46	Experimental and modeling study of carbon suboxide decomposition behind reflected shock waves. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 1246-1252.	1.3	12
47	The influence of hydrogen and methane on the growth of carbon particles during acetylene pyrolysis in a burnt-gas flow reactor. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 1125-1132.	2.4	12
48	High-Temperature Unimolecular Decomposition of Diethyl Ether: Shock-Tube and Theory Studies. <i>Journal of Physical Chemistry A</i> , 2019, 123, 6813-6827.	1.1	12
49	Multi-line SiO fluorescence imaging in the flame synthesis of silica nanoparticles from SiCl_4 . <i>Combustion and Flame</i> , 2021, 224, 260-272.	2.8	12
50	A six-compound, high performance gasoline surrogate for internal combustion engines: Experimental and numerical study of autoignition using high-pressure shock tubes. <i>Fuel</i> , 2020, 261, 116439.	3.4	11
51	Monitoring formaldehyde in a shock tube with a fast dual-comb spectrometer operating in the spectral range of 1740–1790 cm^{-1} . <i>Applied Physics B: Lasers and Optics</i> , 2020, 126, 1.	1.1	11
52	Experimental investigation and modeling of the kinetics of CCl_4 pyrolysis behind reflected shock waves using high-repetition-rate time-of-flight mass spectrometry. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 2821.	1.3	10
53	High-temperature gas-phase kinetics of the thermal decomposition of tetramethoxysilane. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 1133-1141.	2.4	10
54	Pyrolysis of diethyl carbonate: Shock-tube and flow-reactor measurements and modeling. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 987-996.	2.4	10

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55	Time-Resolved Cavity Ringdown Measurements and Kinetic Modeling of the Pressure Dependences of the Recombination Reactions of SiH ₂ with the Alkenes C ₂ H ₄ , C ₃ H ₆ , and <i>trans</i> -C ₄ H ₈ . Journal of Physical Chemistry A, 2008, 112, 5636-5646.	1.1	9
56	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
57	Determination of gas-phase absorption cross-sections of FeO in a shock tube using intracavity absorption spectroscopy near 611 nm. Proceedings of the Combustion Institute, 2021, 38, 1637-1645.	2.4	8
58	Numerical Investigation of Remote Ignition in Shock Tubes. Flow, Turbulence and Combustion, 2021, 106, 471-498.	1.4	7
59	High temperature shock-tube study of the reaction of gallium with ammonia. Physical Chemistry Chemical Physics, 2011, 13, 4149.	1.3	6
60	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
61	Shock-tube study of the decomposition of octamethylcyclotetrasiloxane and hexamethylcyclotrisiloxane. Zeitschrift Fur Physikalische Chemie, 2020, 234, 1395-1426.	1.4	6
62	Ignition delay times of shock-heated tetraethoxysilane, hexamethyldisiloxane, and titanium tetraisopropoxide. Chemical Physics Letters, 2014, 601, 54-58.	1.2	5
63	The influence of selected aromatic fluorescence tracers on the combustion kinetics of iso-octane. Fuel, 2019, 244, 559-568.	3.4	5
64	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
65	Kinetics of the Thermal Decomposition of Ethylsilane: Shock-Tube and Modeling Study. Energy & Fuels, 2021, 35, 3266-3282.	2.5	5
66	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
67	Measurement of the absorption cross sections of SiCl ₄ , SiCl ₃ , SiCl ₂ and Cl at H Lyman- wavelength. Chemical Physics Letters, 2013, 561-562, 31-35.	1.2	3
68	Ultraviolet absorption and laser-induced fluorescence of shock-heated acetylene. Proceedings of the Combustion Institute, 2017, 36, 4469-4475.	2.4	3
69	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
70	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
71	Shock-tube study of the ignition delay time of tetraethoxysilane (TEOS)., 2009, , 781-785.		1