David F Davidson

List of Publications by Year
in descending order

178 papers	8,493 citations	36303 51 h-index	56724 83 g-index
182 all docs	182 docs citations	182 times ranked	2853 citing authors

#	Article	IF	Citations
1	Shock tube determination of ignition delay times in full-blend and surrogate fuel mixtures. Combustion and Flame, 2004, 139, 300-311.	5.2	518
2	A physics-based approach to modeling real-fuel combustion chemistry - I. Evidence from experiments, and thermodynamic, chemical kinetic and statistical considerations. Combustion and Flame, 2018, 193, 502-519.	5.2	304
3	An experimental and modeling study of propene oxidation. Part 2: Ignition delay time and flame speed measurements. Combustion and Flame, 2015, 162, 296-314.	5.2	270
4	An improved H2/O2 mechanism based on recent shock tube/laser absorption measurements. Combustion and Flame, 2011, 158, 633-644.	5.2	268
5	A physics-based approach to modeling real-fuel combustion chemistryÂâ€“ÂII. Reaction kinetic models of jet and rocket fuels. Combustion and Flame, 2018, 193, 520-537.	5.2	247
6	Recent advances in laser absorption and shock tube methods for studies of combustion chemistry. Progress in Energy and Combustion Science, 2014, 44, 103-114.	31.2	231
7	Jet fuel ignition delay times: Shock tube experiments over wide conditions and surrogate model predictions. Combustion and Flame, 2008, 152, 125-143.	5.2	216
8	Shock tube ignition measurements of iso-octane/air and toluene/air at high pressures. Proceedings of the Combustion Institute, 2005, 30, 1175-1182.	3.9	209
9	Study of the High-Temperature Autoignition of n-Alkane/O/Ar Mixtures. Journal of Propulsion and Power, 2002, 18, 363-371.	2.2	199
10	Interpreting shock tube ignition data. International Journal of Chemical Kinetics, 2004, 36, 510-523.	1.6	180
11	CO concentration and temperature sensor for combustion gases using quantum-cascade laser absorption near 4.7 Î¼m. Applied Physics B: Lasers and Optics, 2012, 107, 849-860.	2.2	145
12	Ignition Delay Times of Ram Accelerator CH/O/Diluent Mixtures. Journal of Propulsion and Power, 1999, 15, 82-91.	2.2	131
13	Shock tube measurements of ignition delay times for the butanol isomers. Combustion and Flame, 2012, 159, 516-527.	5.2	119
14	Ignition delay times of low-vapor-pressure fuels measured using an aerosol shock tube. Combustion and Flame, 2012, 159, 552-561.	5.2	112
15	Quantitative detection of HCO behind shock waves: The thermal decomposition of HCO. Physical Chemistry Chemical Physics, 2002, 4, 5778-5788.	2.8	107
16	A comparative study of the oxidation characteristics of cyclohexane, methylcyclohexane, and n-butylcyclohexane at high temperatures. Combustion and Flame, 2011, 158, 1456-1468.	5.2	104
17	Development of an aerosol shock tube for kinetic studies of low-vapor-pressure fuels. Combustion and Flame, 2008, 155, 108-117.	5.2	100
18	The use of driver inserts to reduce non-ideal pressure variations behind reflected shock waves. Shock Waves, 2009, 19, 113-123.	1.9	98

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19	A physics-based approach to modeling real-fuel combustion chemistry â€“ IV. HyChem modeling of combustion kinetics of a bio-derived jet fuel and its blends with a conventional Jet A. Combustion and Flame, 2018, 198, 477-489.	5.2	95
20	High-Temperature Thermal Decomposition of Isobutane and n-Butane Behind Shock Waves. Journal of Physical Chemistry A, 2004, 108, 4247-4253.	2.5	94
21	An experimental and computational study of methyl ester decomposition pathways using shock tubes. Proceedings of the Combustion Institute, 2009, 32, 247-253.	3.9	87
22	On the rate constants of OH + HO2 and HO2+ HO2: A comprehensive study of H2O2 thermal decomposition using multi-species laser absorption. Proceedings of the Combustion Institute, 2013, 34, 565-571.	3.9	85
23	A Shock Tube Study of OH + H₂O₂â†’ H₂O + HO₂and H₂O₂+ M â†’ 2OH + M using Laser Absorption of H₂O and OH. Journal of Physical Chemistry A, 2010, 114, 5718-5727.	2.5	84
24	Shock tube measurements of branched alkane ignition times and OH concentration time histories. International Journal of Chemical Kinetics, 2003, 36, 67-78.	1.6	79
25	High-temperature ethane and propane decomposition. Proceedings of the Combustion Institute, 2005, 30, 1119-1127.	3.9	79
26	High-pressure methane oxidation behind reflected shock waves. Proceedings of the Combustion Institute, 1996, 26, 799-806.	0.3	76
27	Direct measurements of the reaction OH + CH2O ? HCO + H2O at high temperatures. International Journal of Chemical Kinetics, 2005, 37, 98-109.	1.6	76
28	Ignition Delay Time Measurements of Normal Alkanes and Simple Oxygenates. Journal of Propulsion and Power, 2010, 26, 280-287.	2.2	76
29	Recent advances in shock tube/laser diagnostic methods for improved chemical kinetics measurements. Shock Waves, 2009, 19, 271-283.	1.9	75
30	Thermal decomposition of toluene: Overall rate and branching ratio. Proceedings of the Combustion Institute, 2007, 31, 211-219.	3.9	73
31	IR laser absorption diagnostic for C₂H₄ in shock tube kinetics studies. International Journal of Chemical Kinetics, 2012, 44, 423-432.	1.6	72
32	High-Temperature Measurements of the Reactions of OH with Toluene and Acetone. Journal of Physical Chemistry A, 2005, 109, 3352-3359.	2.5	69
33	Ignition delay times of methane and hydrogen highly diluted in carbon dioxide at high pressures up to 300 atm. Proceedings of the Combustion Institute, 2019, 37, 4555-4562.	3.9	69
34	Hydrogen Peroxide Decomposition Rate: A Shock Tube Study Using Tunable Laser Absorption of H₂O near 2.5 Î¼m. Journal of Physical Chemistry A, 2009, 113, 12919-12925.	2.5	68
35	A Physics-based approach to modeling real-fuel combustion chemistry â€“ÂII. Reaction kinetic model of JP10. Combustion and Flame, 2018, 198, 466-476.	5.2	67
36	Shock Tube Study of the Reaction of CH with N2:Â Overall Rate and Branching Ratio. Journal of Physical Chemistry A, 2007, 111, 11818-11830.	2.5	66

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37	OH concentration time histories inn-alkane oxidation. International Journal of Chemical Kinetics, 2001, 33, 775-783.	1.6	64
38	Uncertainty-quantification analysis of the effects of residual impurities on hydrogenâ€“oxygen ignition in shock tubes. Combustion and Flame, 2014, 161, 1-15.	5.2	64
39	Dependence of Calculated Postshock Thermodynamic Variables on Vibrational Equilibrium and Input Uncertainty. Journal of Thermophysics and Heat Transfer, 2017, 31, 586-608.	1.6	61
40	Experimental Study of the Rate of OH + HO₂ â†' H₂O + O₂ at High Temperatures Using the Reverse Reaction. Journal of Physical Chemistry A, 2010, 114, 5520-5525.	2.5	60
41	Constrained reaction volume shock tube study of n -heptane oxidation: Ignition delay times and time-histories of multiple species and temperature. Proceedings of the Combustion Institute, 2015, 35, 231-239.	3.9	60
42	Multi-species time-history measurements during n-heptane oxidation behind reflected shock waves. Combustion and Flame, 2010, 157, 1899-1905.	5.2	57
43	Investigation of the reaction of toluene with molecular oxygen in shock-heated gases. Combustion and Flame, 2006, 147, 195-208.	5.2	56
44	A simple reactive gasdynamic model for the computation of gas temperature and species concentrations behind reflected shock waves. International Journal of Chemical Kinetics, 2008, 40, 189-198.	1.6	56
45	Ignition delay times of conventional and alternative fuels behind reflected shock waves. Proceedings of the Combustion Institute, 2015, 35, 241-248.	3.9	56
46	High-temperature laser absorption diagnostics for CH2O and CH3CHO and their application to shock tube kinetic studies. Combustion and Flame, 2013, 160, 1930-1938.	5.2	55
47	Multi-species time-history measurements during n-dodecane oxidation behind reflected shock waves. Proceedings of the Combustion Institute, 2011, 33, 151-157.	3.9	54
48	Shock Tube Study of Syngas Ignition in Rich CO₂ Mixtures and Determination of the Rate of H + O₂ + CO₂ â†' HO₂ + CO₂. Energy & Fuels, 2011, 25, 990-997.	5.1	53
49	Toward a better understanding of 2-butanone oxidation: Detailed species measurements and kinetic modeling. Combustion and Flame, 2017, 184, 195-207.	5.2	53
50	Validation of a thermal decomposition mechanism of formaldehyde by detection of CH2 O and HCO behind shock waves. International Journal of Chemical Kinetics, 2004, 36, 157-169.	1.6	52
51	Shock Tube Study of Methylcyclohexane Ignition over a Wide Range of Pressure and Temperature. Energy & Fuels, 2009, 23, 175-185.	5.1	52
52	Measurements of the reaction of OH with n-butanol at high-temperatures. Chemical Physics Letters, 2010, 497, 26-29.	2.6	51
53	Shock tube study of methanol, methyl formate pyrolysis: CH3OH and CO time-history measurements. Combustion and Flame, 2013, 160, 2669-2679.	5.2	50
54	High temperature measurements for the rate constants of C1â€“C4 aldehydes with OH in a shock tube. Proceedings of the Combustion Institute, 2015, 35, 473-480.	3.9	49

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55	High-sensitivity interference-free diagnostic for measurement of methane in shock tubes. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 156, 80-87.	2.3	49
56	Fuel and Ethylene Measurements during n-dodecane, methylcyclohexane, and iso-cetane pyrolysis in shock tubes. Fuel, 2013, 103, 1060-1068.	6.4	47
57	High-Temperature Thermal Decomposition of Benzyl Radicalsâ€. Journal of Physical Chemistry A, 2006, 110, 6649-6653.	2.5	46
58	A shock tube study of the rate constants of HO2 and CH3 reactions. Combustion and Flame, 2012, 159, 3007-3013.	5.2	46
59	Direct measurements of the reaction H + CH2O ? H2 + HCO behind shock waves by means of Vis-UV detection of formaldehyde. International Journal of Chemical Kinetics, 2002, 34, 374-386.	1.6	45
60	OH time-histories during oxidation of n-heptane and methylcyclohexane at high pressures and temperatures. Combustion and Flame, 2009, 156, 736-749.	5.2	45
61	High-Temperature Shock Tube Measurements of Dimethyl Ether Decomposition and the Reaction of Dimethyl Ether with OH. Journal of Physical Chemistry A, 2009, 113, 9974-9980.	2.5	44
62	High-temperature laminar flame speed measurements in a shock tube. Combustion and Flame, 2019, 205, 241-252.	5.2	44
63	Shock tube studies of methyl butanoate pyrolysis with relevance to biodiesel. Combustion and Flame, 2012, 159, 3235-3241.	5.2	43
64	A shock tube study of jet fuel pyrolysis and ignition at elevated pressures and temperatures. Fuel, 2018, 226, 338-344.	6.4	43
65	Strategies for obtaining long constant-pressure test times in shock tubes. Shock Waves, 2015, 25, 651-665.	1.9	42
66	Reactions of OH with Butene Isomers: Measurements of the Overall Rates and a Theoretical Study. Journal of Physical Chemistry A, 2011, 115, 2549-2556.	2.5	41
67	Interference-free mid-IR laser absorption detection of methane. Measurement Science and Technology, 2011, 22, 025303.	2.6	41
68	A Shock Tube Study of H₂ + OH â†’ H₂O + H Using OH Laser Absorption. International Journal of Chemical Kinetics, 2013, 45, 363-373.	1.6	41
69	A shock tube study of ignition delay times in diluted methane, ethylene, propene and their blends at elevated pressures. Fuel, 2018, 225, 370-380.	6.4	41
70	Experimental Investigation of Toluene + H â†’ Benzyl + H2at High Temperatures. Journal of Physical Chemistry A, 2006, 110, 9867-9873.	2.5	40
71	Contact surface tailoring condition for shock tubes with different driver and driven section diameters. Shock Waves, 2009, 19, 331-336.	1.9	40
72	1-Butanol ignition delay times at low temperatures: An application of the constrained-reaction-volume strategy. Combustion and Flame, 2014, 161, 634-643.	5.2	40

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73	Multi-species time-history measurements during high-temperature acetone and 2-butanone pyrolysis. Proceedings of the Combustion Institute, 2013, 34, 607-615.	3.9	39
74	Ignition delay times of very-low-vapor-pressure biodiesel surrogates behind reflected shock waves. Fuel, 2014, 126, 271-281.	6.4	38
75	On estimating physical and chemical properties of hydrocarbon fuels using mid-infrared FTIR spectra and regularized linear models. Fuel, 2019, 255, 115715.	6.4	37
76	AEROFROSH: a shock condition calculator for multi-component fuel aerosol-laden flows. Shock Waves, 2016, 26, 429-447.	1.9	36
77	Shock tube study of the rate constants for Hâ€‰+â€‰O2â€‰+â€‰Mâ€‰â†’â€‰HO2â€‰+â€‰M (Mâ€‰=â€‰Ar, H2O, CO2, N2) at elevated pressures. Proceedings of the Combustion Institute, 2019, 37, 145-152.	3.9	34
78	Experimental and Modeling Study of the Thermal Decomposition of C3â€“C5 Ethyl Esters Behind Reflected Shock Waves. Journal of Physical Chemistry A, 2014, 118, 1785-1798.	2.5	33
79	Planar laser-induced fluorescence imaging in shock tube flows. Experiments in Fluids, 2010, 49, 751-759.	2.4	32
80	Shock tube/laser absorption measurements of ethylene time-histories during ethylene and n-heptane pyrolysis. Proceedings of the Combustion Institute, 2011, 33, 333-340.	3.9	32
81	Shock-tube measurements of excited oxygen atoms using cavity-enhanced absorption spectroscopy. Applied Optics, 2015, 54, 8766.	2.1	32
82	Coupled Effects of Carbon Dioxide and Water Vapor Addition on Soot Formation in Ethylene Diffusion Flames. Energy & Fuels, 2019, 33, 5582-5596.	5.1	32
83	Reaction Rate Constant of CH₂O + H = HCO + H₂ Revisited: A Combined Study of Direct Shock Tube Measurement and Transition State Theory Calculation. Journal of Physical Chemistry A, 2014, 118, 10201-10209.	2.5	31
84	High-speed OH* chemiluminescence imaging of ignition through a shock tube end-wall. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	31
85	A new method of estimating derived cetane number for hydrocarbon fuels. Fuel, 2019, 241, 319-326.	6.4	31
86	A second-generation constrained reaction volume shock tube. Review of Scientific Instruments, 2014, 85, 055108.	1.3	30
87	Shock-Tube Experiments and Kinetic Modeling of Toluene Ignition. Journal of Propulsion and Power, 2010, 26, 776-783.	2.2	29
88	A new diagnostic for hydrocarbon fuels using 3.41-Âµm diode laser absorption. Combustion and Flame, 2017, 186, 129-139.	5.2	29
89	High-temperature measurements of the rates of the reactions CH2O+Arâ†’Products and CH2O+O2â†’Products. Proceedings of the Combustion Institute, 2007, 31, 175-183.	3.9	28
90	Shock tube measurements of methane, ethylene and carbon monoxide time-histories in DME pyrolysis. Combustion and Flame, 2013, 160, 747-754.	5.2	28

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91	High-temperature UV absorption of methyl radicals behind shock waves. Journal of Quantitative Spectroscopy and Radiative Transfer, 2005, 92, 393-402.	2.3	27
92	Two-wavelength mid-IR diagnostic for temperature andÂn-dodecane concentration in an aerosol shock tube. Applied Physics B: Lasers and Optics, 2008, 93, 627-638.	2.2	27
93	A shock tube study of n-heptane, iso-octane, n-dodecane and iso-octane/n-dodecane blends oxidation at elevated pressures and intermediate temperatures. Fuel, 2019, 243, 541-553.	6.4	27
94	Shock Tube and Laser Absorption Study of CH₂O Oxidation via Simultaneous Measurements of OH and CO. Journal of Physical Chemistry A, 2017, 121, 8561-8568.	2.5	26
95	Oxygen Vibrational Relaxation Times: Shock Tube/Laser Absorption Measurements. Journal of Thermophysics and Heat Transfer, 2016, 30, 791-798.	1.6	25
96	Shock tube study of monomethylamine thermal decomposition and NH2 high temperature absorption coefficient. International Journal of Chemical Kinetics, 1999, 31, 323-330.	1.6	24
97	Temperature measurement using ultraviolet laser absorption of carbon dioxide behind shock waves. Applied Optics, 2005, 44, 6599.	2.1	24
98	High-speed imaging of inhomogeneous ignition in a shock tube. Shock Waves, 2018, 28, 1089-1095.	1.9	24
99	A multi-wavelength speciation framework for high-temperature hydrocarbon pyrolysis. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 225, 180-205.	2.3	24
100	An improved kinetic mechanism for 3-pentanone pyrolysis and oxidation developed using multispecies time histories in shock-tubes. Combustion and Flame, 2014, 161, 1135-1145.	5.2	23
101	Improved Shock Tube Measurement of the CH₄ + Ar = CH₃ + H + Ar Rate Constant using UV Cavity-Enhanced Absorption Spectroscopy of CH₃. Journal of Physical Chemistry A, 2016, 120, 5427-5434.	2.5	23
102	Methane and ethylene time-history measurements in n-butane and n-heptane pyrolysis behind reflected shock waves. Fuel, 2013, 108, 557-564.	6.4	22
103	Measurement of the reaction rate of Hâ€¯+â€¯O2â€¯+â€¯Mâ€¯â†’â€¯HO2â€¯+â€¯M, for M= Ar, N2, CO2, at high temperature with a sensitive OH absorption diagnostic. Combustion and Flame, 2019, 203, 265-278.	5.2	22
104	Shock tube measurements of 3-pentanone pyrolysis and oxidation. Combustion and Flame, 2012, 159, 3251-3263.	5.2	21
105	Shock tube measurements of branched alkane ignition delay times. Fuel, 2014, 118, 398-405.	6.4	21
106	A physics-based approach to modeling real-fuel combustion chemistry â€“ VI. Predictive kinetic models of gasoline fuels. Combustion and Flame, 2020, 220, 475-487.	5.2	21
107	Decomposition Measurements of RP-1, RP-2, JP-7, n-Dodecane, and Tetrahydroquinoline in Shock Tubes. Journal of Propulsion and Power, 2011, 27, 981-989.	2.2	20
108	Formulation of an RP-1 pyrolysis surrogate from shock tube measurements of fuel and ethylene time histories. Fuel, 2013, 103, 1051-1059.	6.4	20

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109	Shock tube study of ethylamine pyrolysis and oxidation. Combustion and Flame, 2014, 161, 2512-2518.	5.2	20
110	Shock-Tube Measurement of Acetone Dissociation Using Cavity-Enhanced Absorption Spectroscopy of CO. Journal of Physical Chemistry A, 2015, 119, 7257-7262.	2.5	20
111	Pyrolysis and oxidation of methyl acetate in a shock tube: A multi-species time-history study. Proceedings of the Combustion Institute, 2017, 36, 255-264.	3.9	20
112	Experimental Observation of Negative Temperature Dependence in <i>iso</i>-Octane Burning Velocities. AIAA Journal, 2019, 57, 4476-4481.	2.6	20
113	Ignition delay time measurements and modeling for gasoline at very high pressures. Proceedings of the Combustion Institute, 2019, 37, 4885-4892.	3.9	20
114	Shock-induced ignition and pyrolysis of high-pressure methane and natural gas mixtures. Combustion and Flame, 2020, 221, 364-370.	5.2	20
115	The thermal decomposition of ethane. Fuel, 2020, 268, 117409.	6.4	19
116	Ultraviolet absorption cross-sections of hot carbon dioxide. Chemical Physics Letters, 2004, 399, 490-495.	2.6	18
117	High-Temperature Measurements of the Reactions of OH with Ethylamine and Dimethylamine. Journal of Physical Chemistry A, 2014, 118, 70-77.	2.5	18
118	Chemical kinetic modeling and shock tube study of methyl propanoate decomposition. Combustion and Flame, 2017, 184, 30-40.	5.2	18
119	Shock tube study of normal heptane first-stage ignition near 3.5Âatm. Combustion and Flame, 2018, 198, 376-392.	5.2	18
120	Shock Tube Measurement of the C₂H₄ + H â‡” C₂H₃ + H₂ Rate Constant. Journal of Physical Chemistry A, 2019, 123, 15-20.	2.5	18
121	Second-generation aerosol shock tube: an improved design. Shock Waves, 2012, 22, 483-493.	1.9	17
122	Shock tube and modeling study of 2,7-dimethyloctane pyrolysis and oxidation. Combustion and Flame, 2015, 162, 2296-2306.	5.2	17
123	A shock tube study of CH 3 OH + OH â†’ Products using OH laser absorption. Proceedings of the Combustion Institute, 2015, 35, 377-384.	3.9	17
124	Development of a two-wavelength IR laser absorption diagnostic for propene and ethylene. Measurement Science and Technology, 2018, 29, 055202.	2.6	17
125	Shock tube measurements of species time-histories in monomethyl hydrazine pyrolysis. Combustion and Flame, 2011, 158, 790-795.	5.2	16
126	Shock Tube Study of Dimethylamine Oxidation. International Journal of Chemical Kinetics, 2015, 47, 19-26.	1.6	16

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127	Kinetics of Excited Oxygen Formation in Shock-Heated O₂â€“Ar Mixtures. Journal of Physical Chemistry A, 2016, 120, 8234-8243.	2.5	16
128	Shock tube measurements of the rate constant for the reaction cyclohexeneâ†’ethylene+1,3-butadiene. Chemical Physics Letters, 2013, 584, 18-23.	2.6	15
129	Shock tube study of the pressure dependence of monomethylhydrazine pyrolysis. Combustion and Flame, 2014, 161, 16-22.	5.2	15
130	Demonstration of non-absorbing interference rejection using wavelength modulation spectroscopy in high-pressure shock tubes. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	15
131	A new strategy of characterizing hydrocarbon fuels using FTIR spectra and generalized linear model with grouped-Lasso regularization. Fuel, 2021, 287, 119419.	6.4	15
132	Laser photolysis shock tube for combustion kinetics studies. Proceedings of the Combustion Institute, 1989, 22, 1877-1885.	0.3	14
133	Combined Ab Initio, Kinetic Modeling, and Shock Tube Study of the Thermal Decomposition of Ethyl Formate. Journal of Physical Chemistry A, 2017, 121, 6568-6579.	2.5	14
134	Shock tube measurements of OH concentration time-histories in benzene, toluene, ethylbenzene and xylene oxidation. Proceedings of the Combustion Institute, 2019, 37, 163-170.	3.9	14
135	Multi-wavelength speciation of high-temperature 1-butene pyrolysis. Fuel, 2019, 244, 269-281.	6.4	14
136	Shock-induced behavior in micron-sized water aerosols. Physics of Fluids, 2007, 19, 056104.	4.0	13
137	Broad-linewidth laser absorption measurements of oxygen between 211 and 235nm at high temperatures. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2698-2703.	2.3	13
138	Near-wall imaging using toluene-based planar laser-induced fluorescence in shock tube flow. Shock Waves, 2011, 21, 523-532.	1.9	13
139	Multi-species time-history measurements during n-hexadecane oxidation behind reflected shock waves. Proceedings of the Combustion Institute, 2013, 34, 369-376.	3.9	13
140	A combined laser absorption and gas chromatography sampling diagnostic for speciation in a shock tube. Combustion and Flame, 2018, 195, 40-49.	5.2	13
141	A comparative laser absorption and gas chromatography study of low-temperature n-heptane oxidation intermediates. Proceedings of the Combustion Institute, 2019, 37, 249-257.	3.9	13
142	Shock tube measurements and model development for morpholine pyrolysis and oxidation at high pressures. Combustion and Flame, 2013, 160, 1559-1571.	5.2	12
143	Measurements of Oxygen Dissociation Using Laser Absorption. Journal of Thermophysics and Heat Transfer, 2016, 30, 274-278.	1.6	12
144	Scaling relation for high-temperature biodiesel surrogate ignition delay times. Fuel, 2016, 164, 151-159.	6.4	12

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145	Multispecies laser measurements of n-butanol pyrolysis behind reflected shock waves. International Journal of Chemical Kinetics, 2012, 44, 303-311.	1.6	11
146	Shock Tube Measurement for the Dissociation Rate Constant of Acetaldehyde Using Sensitive CO Diagnostics. Journal of Physical Chemistry A, 2016, 120, 6895-6901.	2.5	11
147	Cavity-enhanced absorption spectroscopy with a ps-pulsed UV laser for sensitive, high-speed measurements in a shock tube. Optics Express, 2016, 24, 308.	3.4	11
148	The pyrolysis of propane. International Journal of Chemical Kinetics, 2020, 52, 725-738.	1.6	11
149	Time-resolved sub-ppm CH3 detection in a shock tube using cavity-enhanced absorption spectroscopy with a ps-pulsed UV laser. Proceedings of the Combustion Institute, 2017, 36, 4549-4556.	3.9	10
150	A streamlined approach to hybrid-chemistry modeling for a low cetane-number alternative jet fuel. Combustion and Flame, 2019, 208, 15-26.	5.2	10
151	Shock Tube Measurement of the CH₃ + C₂H₆ â†' CH₄ + C₂H₅ Rate Constant. Journal of Physical Chemistry A, 2019, 123, 9096-9101.	2.5	10
152	Two-color frequency-multiplexed IMS technique for gas thermometry at elevated pressures. Applied Physics B: Lasers and Optics, 2020, 126, 1.	2.2	9
153	High-speed imaging of n-heptane ignition in a high-pressure shock tube. Proceedings of the Combustion Institute, 2021, 38, 911-918.	3.9	9
154	Shock Tube Measurement of the High-Temperature Rate Constant for OH + CH3 â†' Products. Journal of Physical Chemistry A, 2015, 119, 8799-8805.	2.5	8
155	V.U.V. absorption diagnostic for shock tube kinetics studies of C2H4. Journal of Quantitative Spectroscopy and Radiative Transfer, 1994, 52, 31-43.	2.3	7
156	Experimental Database for Development of a HiFiRE JP-7 Surrogate Fuel Mechanism. , 2012, , .		7
157	Pyrolysis study of conventional and alternative fuels behind reflected shock waves. Fuel, 2014, 132, 170-177.	6.4	7
158	Collisional excitation kinetics for <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">O</mml:mi><mml:mo>(</mml:mo><mml:mn>3</mml:mn><mml:mi>s</mml:mi><mml:mspace) Tj ETQq0 0 0 rg	2.1	7
159	<mm Shock Tube Measurements of Ignition Delay Times for the Butanol Isomers Using the Constrainedâ€Reactionâ€VolumeÂStrategy. International Journal of Chemical Kinetics, 2014, 46, 433-442.	1.6	6
160	Spectroscopic inference of alkane, alkene, and aromatic formation during high-temperature JP8, JP5, and Jet-A pyrolysis. Fuel, 2020, 269, 117420.	6.4	6
161	Rate constants of long, branched, and unsaturated aldehydes with OH at elevated temperatures. Proceedings of the Combustion Institute, 2017, 36, 151-160.	3.9	5
162	Shock tube study of ethanol pyrolysis I: Multi-species time-history measurements. Combustion and Flame, 2021, , 111553.	5.2	5

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163	Spectroscopic Diagnostics. , 2001, , 741-VI.		4
164	Single-Ended Sensor for Thermometry and Speciation in Shock Tubes Using Native Surfaces. IEEE Sensors Journal, 2019, 19, 4954-4961.	4.7	4
165	Measurement of time histories of stable intermediates during first stage ignition of n-heptane and its two isomers in a shock tube. Proceedings of the Combustion Institute, 2021, 38, 957-965.	3.9	4
166	Shock Tube/Laser Absorption Measurements of Jet Fuel Pyrolysis and Oxidation. , 2015, , .		3
167	Shock tube techniques for kinetic target data to improve reaction models. Computer Aided Chemical Engineering, 2019, , 169-202.	0.5	3
168	Determination of the JP10 + OH â†' Product Reaction Rate with Measured Fuel Concentrations in Shock Tube Experiments. Journal of Physical Chemistry A, 2020, 124, 3026-3030.	2.5	3
169	Shock tube study of ethanol pyrolysis II: Rate constant measurements and modeling. Combustion and Flame, 2021, 233, 111554.	5.2	3
170	Experimental and modeling of autoignition of gaseous hydrocarbon fuels in the presence of H2 and C2H4. Fuel, 2021, 296, 120713.	6.4	3
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