Tiziano Faravelli

List of Publications by Year
in descending order

217 papers	13,654 citations	18482 62 h-index	25787 108 g-index
218 all docs	218 docs citations	218 times ranked	6259 citing authors

#	Article	IF	Citations
1	Hierarchical and comparative kinetic modeling of laminar flame speeds of hydrocarbon and oxygenated fuels. Progress in Energy and Combustion Science, 2012, 38, 468-501.	31.2	773
2	Chemical Kinetics of Biomass Pyrolysis. Energy & Fuels, 2008, 22, 4292-4300.	5.1	568
3	Experimental formulation and kinetic model for JP-8 surrogate mixtures. Combustion Science and Technology, 2002, 174, 399-417.	2.3	415
4	Reduced Kinetic Schemes of Complex Reaction Systems: Fossil and Biomassâ€Derived Transportation Fuels. International Journal of Chemical Kinetics, 2014, 46, 512-542.	1.6	401
5	Lumping procedures in detailed kinetic modeling of gasification, pyrolysis, partial oxidation and combustion of hydrocarbon mixtures. Progress in Energy and Combustion Science, 2001, 27, 99-139.	31.2	383
6	OpenSMOKE++: An object-oriented framework for the numerical modeling of reactive systems with detailed kinetic mechanisms. Computer Physics Communications, 2015, 192, 237-264.	7.5	324
7	The chemistry of chemical recycling of solid plastic waste via pyrolysis and gasification: State-of-the-art, challenges, and future directions. Progress in Energy and Combustion Science, 2021, 84, 100901.	31.2	297
8	Detailed kinetic modeling of the thermal degradation of lignins. Biomass and Bioenergy, 2010, 34, 290-301.	5.7	290
9	An experimental, theoretical and kinetic-modeling study of the gas-phase oxidation of ammonia. Reaction Chemistry and Engineering, 2020, 5, 696-711.	3.7	275
10	Thermal degradation of polystyrene. Journal of Analytical and Applied Pyrolysis, 2001, 60, 103-121.	5.5	254
11	Wide-Range Kinetic Modeling Study of the Pyrolysis, Partial Oxidation, and Combustion of Heavyn-Alkanes. Industrial & Engineering Chemistry Research, 2005, 44, 5170-5183.	3.7	253
12	Kinetic modeling of the interactions between NO and hydrocarbons in the oxidation of hydrocarbons at low temperatures. Combustion and Flame, 2003, 132, 188-207.	5.2	243
13	An experimental and kinetic modeling study of combustion of isomers of butanol. Combustion and Flame, 2010, 157, 2137-2154.	5.2	224
14	New reaction classes in the kinetic modeling of low temperature oxidation of n-alkanes. Combustion and Flame, 2015, 162, 1679-1691.	5.2	214
15	Experimental and kinetic modeling study of combustion of JP-8, its surrogates and reference components in laminar nonpremixed flows. Proceedings of the Combustion Institute, 2007, 31, 393-400.	3.9	185
16	Kinetic modeling of particle size distribution of soot in a premixed burner-stabilized stagnation ethylene flame. Combustion and Flame, 2015, 162, 3356-3369.	5.2	169
17	Thermal degradation of poly(vinyl chloride). Journal of Analytical and Applied Pyrolysis, 2003, 70, 519-553.	5.5	164
18	The ignition, combustion and flame structure of carbon monoxide/hydrogen mixtures. Note 1: Detailed kinetic modeling of syngas combustion also in presence of nitrogen compounds. International Journal of Hydrogen Energy, 2007, 32, 3471-3485.	7.1	160

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19	Low-temperature combustion: Automatic generation of primary oxidation reactions and lumping procedures. Combustion and Flame, 1995, 102, 179-192.	5.2	157
20	An experimental and kinetic modeling study of n-propanol and iso-propanol combustion. Combustion and Flame, 2010, 157, 2-16.	5.2	157
21	Reference components of jet fuels: kinetic modeling and experimental results. Experimental Thermal and Fluid Science, 2004, 28, 701-708.	2.7	154
22	Skeletal mechanism reduction through species-targeted sensitivity analysis. Combustion and Flame, 2016, 163, 382-393.	5.2	150
23	Kinetic modeling of the interactions between NO and hydrocarbons at high temperature. Combustion and Flame, 2003, 135, 97-112.	5.2	141
24	Comprehensive kinetic study of combustion technologies for low environmental impact: MILD and OXY-fuel combustion of methane. Combustion and Flame, 2020, 212, 142-155.	5.2	139
25	A wide-range modeling study of iso-octane oxidation. Combustion and Flame, 1997, 108, 24-42.	5.2	133
26	A computational tool for the detailed kinetic modeling of laminar flames: Application to C2H4/CH4 coflow flames. Combustion and Flame, 2013, 160, 870-886.	5.2	133
27	Experimental and modeling study of single coal particle combustion in O2/N2 and Oxy-fuel (O2/CO2) atmospheres. Combustion and Flame, 2013, 160, 2559-2572.	5.2	131
28	Kinetic and fluid dynamics modeling of methane/hydrogen jet flames in diluted coflow. Applied Thermal Engineering, 2010, 30, 376-383.	6.0	125
29	The sensitizing effects of NO2 and NO on methane low temperature oxidation in a jet stirred reactor. Proceedings of the Combustion Institute, 2019, 37, 667-675.	3.9	124
30	Computational and experimental study of JP-8, a surrogate, and its components in counterflow diffusion flames. Proceedings of the Combustion Institute, 2005, 30, 439-446.	3.9	119
31	Extractives Extend the Applicability of Multistep Kinetic Scheme of Biomass Pyrolysis. Energy & Fuels, 2015, 29, 6544-6555.	5.1	118
32	A wide range kinetic modeling study of pyrolysis and oxidation of benzene. Combustion and Flame, 2013, 160, 1168-1190.	5.2	111
33	Kinetic modeling of polyethylene and polypropylene thermal degradation. Journal of Analytical and Applied Pyrolysis, 1997, 40-41, 305-319.	5.5	110
34	A predictive multi-step kinetic model of coal devolatilization. Fuel, 2010, 89, 318-328.	6.4	109
35	Examination of a soot model in premixed laminar flames at fuel-rich conditions. Proceedings of the Combustion Institute, 2019, 37, 1013-1021.	3.9	109
36	A wide range kinetic modeling study of the pyrolysis and combustion of naphthenes. Combustion and Flame, 2003, 132, 533-544.	5.2	108

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37	Detailed Chemistry Promotes Understanding of Octane Numbers and Gasoline Sensitivity. Energy & Fuels, 2006, 20, 2391-2398.	5.1	105
38	Analysis of process parameters for steady operations in methane mild combustion technology. Proceedings of the Combustion Institute, 2005, 30, 2605-2612.	3.9	102
39	Improved Kinetic Model of the Low-Temperature Oxidation of <i>n</i>-Heptane. Energy & Fuels, 2014, 28, 7178-7193.	5.1	102
40	Lumping and Reduction of Detailed Kinetic Schemes: an Effective Coupling. Industrial & Engineering Chemistry Research, 2014, 53, 9004-9016.	3.7	102
41	Detailed kinetic modeling of the combustion of the four butanol isomers in premixed low-pressure flames. Combustion and Flame, 2012, 159, 2295-2311.	5.2	100
42	Numerical Modeling of Laminar Flames with Detailed Kinetics Based on the Operator-Splitting Method. Energy & Fuels, 2013, 27, 7730-7753.	5.1	100
43	Autoignition and burning rates of fuel droplets under microgravity. Combustion and Flame, 2005, 143, 211-226.	5.2	96
44	A wide range modeling study of NOxNOx formation and nitrogen chemistry in hydrogen combustion. International Journal of Hydrogen Energy, 2006, 31, 2310-2328.	7.1	93
45	Kinetic modeling of the thermal degradation of polyethylene and polystyrene mixtures. Journal of Analytical and Applied Pyrolysis, 2003, 70, 761-777.	5.5	92
46	Gas product distribution from polyethylene pyrolysis. Journal of Analytical and Applied Pyrolysis, 1999, 52, 87-103.	5.5	85
47	Experimental data and kinetic modeling of primary reference fuel mixtures. Proceedings of the Combustion Institute, 1996, 26, 739-746.	0.3	84
48	Formation of soot and nitrogen oxides in unsteady counterflow diffusion flames. Combustion and Flame, 2009, 156, 2010-2022.	5.2	80
49	Algae characterization and multistep pyrolysis mechanism. Journal of Analytical and Applied Pyrolysis, 2017, 128, 423-436.	5.5	80
50	H-Abstraction reactions by OH, HO₂, O, O₂ and benzyl radical addition to O₂ and their implications for kinetic modelling of toluene oxidation. Physical Chemistry Chemical Physics, 2018, 20, 10607-10627.	2.8	80
51	Experimental and kinetic modeling study of combustion of gasoline, its surrogates and components in laminar non-premixed flows. Proceedings of the Combustion Institute, 2009, 32, 493-500.	3.9	77
52	Determination of <mml:math altimg="si53.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.c. The	3.8	76
53	The ignition, combustion and flame structure of carbon monoxide/hydrogen mixtures. Note 2: Fluid dynamics and kinetic aspects of syngas combustion. International Journal of Hydrogen Energy, 2007, 32, 3486-3500.	7.1	74
54	A Wide Range Modeling Study of Methane Oxidation. Combustion Science and Technology, 1994, 96, 279-325.	2.3	73

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55	Reduced kinetic mechanisms of diesel fuel surrogate for engine CFD simulations. Combustion and Flame, 2015, 162, 3991-4007.	5.2	73
56	Detailed kinetic mechanism of gas-phase reactions of volatiles released from biomass pyrolysis. Biomass and Bioenergy, 2016, 93, 60-71.	5.7	73
57	Prediction of Kinetic Parameters for Hydrogen Abstraction Reactions. Combustion Science and Technology, 1993, 95, 1-50.	2.3	72
58	Kinetic Modeling Study of Polycyclic Aromatic Hydrocarbons and Soot Formation in Acetylene Pyrolysis. Energy & Fuels, 2014, 28, 1489-1501.	5.1	70
59	A predictive model of biochar formation and characterization. Journal of Analytical and Applied Pyrolysis, 2018, 134, 326-335.	5.5	69
60	Kinetic modeling study of benzene and PAH formation in laminar methane flames. Combustion and Flame, 2015, 162, 1692-1711.	5.2	67
61	Ab initio evaluation of primary cyclo-hexane oxidation reaction rates. Proceedings of the Combustion Institute, 2007, 31, 201-209.	3.9	64
62	The kinetic modeling of soot precursors in a butadiene flame. Combustion and Flame, 2000, 122, 350-358.	5.2	63
63	A new procedure for predicting NOx emissions from furnaces. Computers and Chemical Engineering, 2001, 25, 613-618.	3.8	63
64	Detailed kinetics of substituted phenolic species in pyrolysis bio-oils. Reaction Chemistry and Engineering, 2019, 4, 490-506.	3.7	63
65	Kinetic Modeling of the Oxidation of Ethanol and Gasoline Surrogate Mixtures. Combustion Science and Technology, 2010, 182, 653-667.	2.3	62
66	Modeling soot formation in premixed flames using an Extended Conditional Quadrature Method of Moments. Combustion and Flame, 2015, 162, 2529-2543.	5.2	62
67	Detailed kinetic modeling of the thermal degradation of vinyl polymers. Journal of Analytical and Applied Pyrolysis, 2007, 78, 343-362.	5.5	59
68	An experimental and kinetic modeling study of the pyrolysis and oxidation of n-C3C5 aldehydes in shock tubes. Combustion and Flame, 2015, 162, 265-286.	5.2	59
69	Resolved flow simulation of pulverized coal particle devolatilization and ignition in air- and O 2 /CO 2 -atmospheres. Fuel, 2016, 186, 285-292.	6.4	59
70	A lumped approach to the kinetic modeling of pyrolysis and combustion of biodiesel fuels. Proceedings of the Combustion Institute, 2013, 34, 427-434.	3.9	57
71	Predictive one step kinetic model of coal pyrolysis for CFD applications. Proceedings of the Combustion Institute, 2013, 34, 2401-2410.	3.9	55
72	A computational framework for the pyrolysis of anisotropic biomass particles. Chemical Engineering Journal, 2017, 321, 458-473.	12.7	55

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73	Experimental and kinetic modeling study of sooting atmospheric-pressure cyclohexane flame. Proceedings of the Combustion Institute, 2009, 32, 585-591.	3.9	51
74	Laminar flame speeds of pentanol isomers: An experimental and modeling study. Combustion and Flame, 2016, 166, 1-18.	5.2	51
75	Kinetic Modelling of Pyrolysis Processes in Gas and Condensed Phase. Advances in Chemical Engineering, 2007, , 51-166.	0.9	50
76	Kinetic modeling study of ethanol and dimethyl ether addition to premixed low-pressure propeneâ€“oxygenâ€“argon flames. Combustion and Flame, 2011, 158, 1264-1276.	5.2	50
77	Experimental and semi-detailed kinetic modeling study of decalin oxidation and pyrolysis over a wide range of conditions. Proceedings of the Combustion Institute, 2013, 34, 289-296.	3.9	50
78	An evolutionary, data-driven approach for mechanism optimization: theory and application to ammonia combustion. Combustion and Flame, 2021, 229, 111366.	5.2	50
79	Primary Pyrolysis and Oxidation Reactions of Linear and Branched Alkanes. Industrial & Engineering Chemistry Research, 1997, 36, 3336-3344.	3.7	49
80	The role of preferential evaporation on the ignition of multicomponent fuels in a homogeneous spray/air mixture. Proceedings of the Combustion Institute, 2017, 36, 2483-2491.	3.9	48
81	Kinetic modeling of counterflow diffusion flames of butadiene. Combustion and Flame, 2002, 131, 273-284.	5.2	47
82	Ammoniaâ€“methane interaction in jet-stirred and flow reactors: An experimental and kinetic modeling study. Proceedings of the Combustion Institute, 2021, 38, 345-353.	3.9	47
83	A wide range kinetic modeling study of pyrolysis and oxidation of methyl butanoate and methyl decanoate. Note I: Lumped kinetic model of methyl butanoate and small methyl esters. Energy, 2012, 43, 124-139.	8.8	46
84	Numerical modeling of auto-ignition of isolated fuel droplets in microgravity. Proceedings of the Combustion Institute, 2015, 35, 1621-1627.	3.9	46
85	Comprehensive kinetic model for the low temperature oxidation of hydrocarbons. AICHE Journal, 1997, 43, 1278-1286.	3.6	45
86	Probe effects in soot sampling from a burner-stabilized stagnation flame. Combustion and Flame, 2016, 167, 184-197.	5.2	45
87	Advanced modeling approaches for CFD simulations of coal combustion and gasification. Progress in Energy and Combustion Science, 2021, 86, 100938.	31.2	45
88	Detailed kinetic modeling of pyrolysis of tetrabromobisphenol A. Journal of Analytical and Applied Pyrolysis, 2007, 80, 325-345.	5.5	43
89	A wide range kinetic modeling study of pyrolysis and oxidation of methyl butanoate and methyl decanoate â€“ Note II: Lumped kinetic model of decomposition and combustion of methyl esters up to methyl decanoate. Combustion and Flame, 2012, 159, 2280-2294.	5.2	43
90	A kinetic modeling study of the thermal degradation of halogenated polymers. Journal of Analytical and Applied Pyrolysis, 2004, 72, 253-272.	5.5	42

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91	Two-dimensional detailed modeling of fuel-rich <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si150.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="normal">H</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math> combustion over <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si151.gif" display="inline" overflow="scroll"><mml:mi>Rh</mml:mi><mml:mo>/</mml:mo><mml:msub><mml:mro	3.8	42
92	Numerical Modeling of NO_{<i>x</i>} Formation in Turbulent Flames Using a Kinetic Post-processing Technique. Energy & Fuels, 2013, 27, 1104-1122.	5.1	42
93	Experimental and modeling investigation of the effect of the unsaturation degree on the gas-phase oxidation of fatty acid methyl esters found in biodiesel fuels. Combustion and Flame, 2016, 164, 346-362.	5.2	42
94	A Detailed Kinetic Study of Pyrolysis and Oxidation of Glycerol (Propane-1,2,3-triol). Combustion Science and Technology, 2012, 184, 1164-1178.	2.3	41
95	High-temperature chemistry of HCl and Cl2. Combustion and Flame, 2015, 162, 2693-2704.	5.2	41
96	Oxidation of oxygenated octane improvers: MTBE, ETBE, DIPE, and TAME. Proceedings of the Combustion Institute, 1998, 27, 353-360.	0.3	40
97	Experimental and kinetic modeling study of PAH formation in methane coflow diffusion flames doped with n-butanol. Combustion and Flame, 2014, 161, 657-670.	5.2	40
98	Fully-resolved simulations of coal particle combustion using a detailed multi-step approach for heterogeneous kinetics. Fuel, 2019, 240, 75-83.	6.4	40
99	Theoretical study of sensitive reactions in phenol decomposition. Reaction Chemistry and Engineering, 2020, 5, 452-472.	3.7	39
100	Relative Reactivity of Oxygenated Fuels: Alcohols, Aldehydes, Ketones, and Methyl Esters. Energy & Fuels, 2016, 30, 8665-8679.	5.1	38
101	Assessment of a detailed biomass pyrolysis kinetic scheme in multiscale simulations of a single-particle pyrolyzer and a pilot-scale entrained flow pyrolyzer. Chemical Engineering Journal, 2021, 418, 129347.	12.7	38
102	A predictive kinetic model of sulfur release from coal. Fuel, 2012, 91, 213-223.	6.4	36
103	A new predictive multi-zone model for HCCI engine combustion. Applied Energy, 2016, 178, 826-843.	10.1	35
104	A Wide Range Modeling Study of Propane and n-Butane Oxidation. Combustion Science and Technology, 1994, 100, 299-330.	2.3	34
105	Numerical problems in the solution of oxidation and combustion models. Combustion Theory and Modelling, 2001, 5, 185-199.	1.9	33
106	Detailed Multi-dimensional Study of Pollutant Formation in a Methane Diffusion Flame. Energy & Fuels, 2012, 26, 1598-1611.	5.1	33
107	Detailed thermokinetic modelling of alkane autoignition as a tool for the optimization of performance of internal combustion engines. Fuel, 1998, 77, 147-155.	6.4	32
108	Frequency Response of Counter Flow Diffusion Flames to Strain Rate Harmonic Oscillations. Combustion Science and Technology, 2008, 180, 767-784.	2.3	32

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109	Experimental and kinetic modeling study of combustion of JP-8, its surrogates and components in laminar premixed flows. Combustion Theory and Modelling, 2011, 15, 569-583.	1.9	32
110	Experimental and detailed kinetic modeling study of PAH formation in laminar co-flow methane diffusion flames. Proceedings of the Combustion Institute, 2013, 34, 1811-1818.	3.9	32
111	Kinetic modeling of soot formation in premixed burner-stabilized stagnation ethylene flames at heavily sooting condition. Fuel, 2018, 234, 199-206.	6.4	32
112	An experimental and kinetic modeling study of propyne and allene oxidation. Proceedings of the Combustion Institute, 2000, 28, 2601-2608.	3.9	31
113	Inhibition of hydrogen oxidation by HBr and Br2. Combustion and Flame, 2012, 159, 528-540.	5.2	31
114	Pyrolysis, Gasification, and Combustion of Solid Fuels. Advances in Chemical Engineering, 2016, 49, 1-94.	0.9	31
115	Soot formation in unsteady counterflow diffusion flames. Proceedings of the Combustion Institute, 2009, 32, 1335-1342.	3.9	29
116	The key role of entrainer inventory for operation and control of heterogeneous azeotropic distillation towers. Computers and Chemical Engineering, 1993, 17, 535-547.	3.8	28
117	Alkyl radicals rule the low temperature oxidation of long chain aldehydes. Proceedings of the Combustion Institute, 2017, 36, 393-401.	3.9	28
118	Fouling phenomena in pyrolysis and combustion processes. Applied Thermal Engineering, 2002, 22, 919-927.	6.0	27
119	Experimental and kinetic modeling study of the effect of fuel composition in HCCI engines. Proceedings of the Combustion Institute, 2009, 32, 2843-2850.	3.9	27
120	Prediction of flammable range for pure fuels and mixtures using detailed kinetics. Combustion and Flame, 2019, 207, 120-133.	5.2	27
121	A first evaluation of butanoic and pentanoic acid oxidation kinetics. Chemical Engineering Journal, 2019, 373, 973-984.	12.7	27
122	Pyrolysis and Combustion Chemistry of Pyrrole, a Reference Component for Bio-oil Surrogates: Jet-Stirred Reactor Experiments and Kinetic Modeling. Energy & Fuels, 2021, 35, 7265-7284.	5.1	26
123	Experimental Study of Tetralin Oxidation and Kinetic Modeling of Its Pyrolysis and Oxidation. Energy & Fuels, 2013, 27, 1576-1585.	5.1	24
124	Experimental and modeling study of benzaldehyde oxidation. Combustion and Flame, 2020, 211, 124-132.	5.2	24
125	On the radical behavior of large polycyclic aromatic hydrocarbons in soot formation and oxidation. Combustion and Flame, 2022, 235, 111692.	5.2	24
126	Curve matching, a generalized framework for models/experiments comparison: An application to n-heptane combustion kinetic mechanisms. Combustion and Flame, 2016, 168, 186-203.	5.2	23

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127	Oscillatory Behavior in Methane Combustion: Influence of the Operating Parameters. Energy & Fuels, 2018, 32, 10088-10099.	5.1	22
128	A fully coupled, parallel approach for the post-processing of CFD data through reactor network analysis. Computers and Chemical Engineering, 2014, 60, 197-212.	3.8	21
129	Flame extinction and low-temperature combustion of isolated fuel droplets of n-alkanes. Proceedings of the Combustion Institute, 2017, 36, 2531-2539.	3.9	21
130	An experimental and kinetic modelling study of n-C4C6 aldehydes oxidation in a jet-stirred reactor. Proceedings of the Combustion Institute, 2019, 37, 389-397.	3.9	21
131	The role of chemistry in the oscillating combustion of hydrocarbons: An experimental and theoretical study. Chemical Engineering Journal, 2020, 385, 123401.	12.7	21
132	PYROLYSIS AND CHLORINATION OF SMALL HYDROCARBONS. Chemical Engineering Communications, 1992, 117, 17-39.	2.6	20
133	Experimental and kinetic modeling study of laminar coflow diffusion methane flames doped with 2-butanol. Proceedings of the Combustion Institute, 2015, 35, 863-871.	3.9	20
134	A Kinetic Modelling Study of Alcohols Operating Regimes in a HCCI Engine. SAE International Journal of Engines, 0, 10, 2354-2370.	0.4	20
135	DropletSMOKE++: A comprehensive multiphase CFD framework for the evaporation of multidimensional fuel droplets. International Journal of Heat and Mass Transfer, 2019, 131, 836-853.	4.8	20
136	Combustion of <i>n</i>-C₃â€“C₆ Linear Alcohols: An Experimental and Kinetic Modeling Study. Part II: Speciation Measurements in a Jet-Stirred Reactor, Ignition Delay Time Measurements in a Rapid Compression Machine, Model Validation, and Kinetic Analysis. Energy & Fuels, 2020, 34, 14708-14725.	5.1	20
137	The kinetic modeling of soot precursors in ethylene flames. Proceedings of the Combustion Institute, 1998, 27, 1489-1495.	0.3	19
138	Numerical investigation of soot formation from microgravity droplet combustion using heterogeneous chemistry. Combustion and Flame, 2018, 189, 393-406.	5.2	19
139	Combustion of <i>n</i>-C₃â€“C₆ Linear Alcohols: An Experimental and Kinetic Modeling Study. Part I: Reaction Classes, Rate Rules, Model Lumping, and Validation. Energy & Fuels, 2020, 34, 14688-14707.	5.1	19
140	Experimental and Modeling Study of a Low NO_xCombustor for Aero-Engine Turbofan. Combustion Science and Technology, 2009, 181, 483-495.	2.3	18
141	Extinction of laminar, premixed, counter-flow methane/air flames under unsteady conditions: Effect of H2 addition. Chemical Engineering Science, 2013, 93, 266-276.	3.8	18
142	Buoyancy effect in sooting laminar premixed ethylene flame. Combustion and Flame, 2019, 205, 135-146.	5.2	18
143	Soot Modeling of Ethylene Counterflow Diffusion Flames. Combustion Science and Technology, 2019, 191, 1473-1483.	2.3	18
144	Automatic Generation of Detailed Mechanisms. Green Energy and Technology, 2013, , 59-92.	0.6	18

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145	Kinetic Modeling of Soot Formation in Turbulent Nonpremixed Flames. Environmental Engineering Science, 2008, 25, 1407-1422.	1.6	17
146	Detailed Emissions Prediction for a Turbulent Swirling Nonpremixed Flame. Energy & Fuels, 2014, 28, 1470-1488.	5.1	17
147	Role of energy balances in dynamic simulation of multicomponent distillation columns. Computers and Chemical Engineering, 1988, 12, 783-786.	3.8	16
148	Rigorous namics and ntrol of continuous stillation ystemsâ€”simulation and experimental results. Computers and Chemical Engineering, 1990, 14, 871-887.	3.8	16
149	Development and Experimental Validation of a Combustion Model with Detailed Chemistry for Knock Predictions. , 0, , .		16
150	An experimental and CFD modeling study of suspended droplets evaporation in buoyancy driven convection. Chemical Engineering Journal, 2019, 375, 122006.	12.7	16
151	Role of gas-phase chemistry in the rich combustion ofH2and CO over aRh/Al2O3catalyst in annular reactor. Chemical Engineering Science, 2007, 62, 4992-4997.	3.8	15
152	Lumped Kinetic Modeling of the Oxidation of Isocetane (2,2,4,4,6,8,8-Heptamethylnonane) in a Jet-Stirred Reactor (JSR). Energy & Fuels, 2009, 23, 5287-5289.	5.1	15
153	Detailed Kinetic Analysis of HCCI Combustion Using a New Multi-Zone Model and CFD Simulations. SAE International Journal of Engines, 0, 6, 1594-1609.	0.4	15
154	A new detailed kinetic model for surrogate fuels: C3MechV3.3. Applications in Energy and Combustion Science, 2022, 9, 100043.	1.5	15
155	Kinetic Modeling of Knock Properties in Internal Combustion Engines. , 0, , .		14
156	Kinetic modelling of extinction and autoignition of condensed hydrocarbon fuels in non-premixed flows with comparison to experiment. Combustion and Flame, 2012, 159, 130-141.	5.2	14
157	Electronic structure-based rate rules for á¸¢ <i>ipso</i> additionâ€“elimination reactions on mono-aromatic hydrocarbons with single and double OH/CH₃/OCH₃/CHO/C₂H₅ substituents: a systematic theoretical investigation. Physical Chemistry Chemical Physics, 2020, 22, 20368-20387.	2.8	14
158	OptiSMOKE++: A toolbox for optimization of chemical kinetic mechanisms. Computer Physics Communications, 2021, 264, 107940.	7.5	14
159	Partial Oxidation of Hydrocarbons: an Experimental and Kinetic Modeling Study. Studies in Surface Science and Catalysis, 1998, 119, 575-580.	1.5	13
160	Carrier-phase DNS of detailed NOx formation in early-stage pulverized coal combustion with fuel-bound nitrogen. Fuel, 2021, 291, 119998.	6.4	13
161	Dimethyl ether oxidation analyzed in a given flow reactor: Experimental and modeling uncertainties. Combustion and Flame, 2022, 240, 111998.	5.2	13
162	Thermochemical oscillation of methane MILD combustion diluted with N₂/CO₂/H₂O. Combustion Science and Technology, 2019, 191, 68-80.	2.3	12

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163	Master equation lumping for multi-well potential energy surfaces: A bridge between ab initio based rate constant calculations and large kinetic mechanisms. Chemical Engineering Journal, 2021, 422, 129954.	12.7	12
164	A post processing technique to predict primary particle size of sooting flames based on a chemical discrete sectional model: Application to diluted coflow flames. Combustion and Flame, 2019, 208, 122-138.	5.2	11
165	Numerical investigation of a porous media combustor in a small-scale diesel engine. Energy, 2019, 186, 115785.	8.8	11
166	Addressing the complexity of combustion kinetics: Data management and automatic model validation. Computer Aided Chemical Engineering, 2019, 45, 763-798.	0.5	11
167	Experimental and modeling assessment of sulfur release from coal under low and high heating rates. Proceedings of the Combustion Institute, 2021, 38, 4053-4061.	3.9	11
168	A Multizone approach to the detailed kinetic modeling of HCCI combustion. , 0, , .		10
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