Fokion N Egolfopoulos

List of Publications by Year
in descending order

107 papers	6,325 citations	81900 39 h-index	69250 77 g-index
116 all docs	116 docs citations	116 times ranked	2762 citing authors

#	Article	IF	Citations
1	Comprehensive chemical kinetic modeling of the oxidation of 2-methylalkanes from C7 to C20. Combustion and Flame, 2011, 158, 2338-2357.	5.2	466
2	Direct experimental determination of laminar flame speeds. Proceedings of the Combustion Institute, 1998, 27, 513-519.	0.3	355
3	A comparative experimental and computational study of methanol, ethanol, and n-butanol flames. Combustion and Flame, 2010, 157, 1989-2004.	5.2	346
4	Propagation and extinction of premixed C5â€"C12 n-alkane flames. Combustion and Flame, 2010, 157, 277-287.	5.2	307
5	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
6	Laminar flame speeds of methane-air mixtures under reduced and elevated pressures. Combustion and Flame, 1989, 76, 375-391.	5.2	256
7	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
8	Chain mechanisms in the overall reaction orders in laminar flame propagation. Combustion and Flame, 1990, 80, 7-16.	5.2	210
9	Detailed and simplified kinetic models of n-dodecane oxidation: The role of fuel cracking in aliphatic hydrocarbon combustion. Proceedings of the Combustion Institute, 2009, 32, 403-410.	3.9	181
10	Unsteady counterflowing strained diffusion flames: diffusion-limited frequency response. Journal of Fluid Mechanics, 1996, 318, 1.	3.4	180
11	Combustion characteristics of alternative gaseous fuels. Proceedings of the Combustion Institute, 2011, 33, 887-894.	3.9	149
12	Laminar flame speeds under engine-relevant conditions: Uncertainty quantification and minimization in spherically expanding flame experiments. Combustion and Flame, 2016, 163, 270-283.	5.2	131
13	Strain-rate effects on hydrogen-enhanced lean premixed combustion. Combustion and Flame, 2001, 124, 717-720.	5.2	116
14	Flame propagation of butanol isomers/air mixtures. Proceedings of the Combustion Institute, 2011, 33, 987-993.	3.9	113
15	Studies of n-propanol, iso-propanol, and propane flames. Combustion and Flame, 2011, 158, 501-510.	5.2	102
16	Studies of C4 and C10 methyl ester flames. Combustion and Flame, 2011, 158, 1507-1519.	5.2	102
17	Extinction of premixed flames of practical liquid fuels: Experiments and simulations. Combustion and Flame, 2006, 144, 448-460.	5.2	96
18	An experimental and modeling study of the propagation of cyclohexane and mono-alkylated cyclohexane flames. Proceedings of the Combustion Institute, 2011, 33, 971-978.	3.9	96

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19	A comprehensive experimental and modeling study of iso-pentanol combustion. Combustion and Flame, 2013, 160, 2712-2728.	5.2	95
20	Propagation and extinction of benzene and alkylated benzene flames. Combustion and Flame, 2012, 159, 1070-1081.	5.2	92
21	Effects of fuel branching on the propagation of octane isomers flames. Combustion and Flame, 2012, 159, 1426-1436.	5.2	90
22	Wall effects on the propagation and extinction of steady, strained, laminar premixed flames. Combustion and Flame, 1997, 109, 237-252.	5.2	89
23	Soot formation in flames of model biodiesel fuels. Combustion and Flame, 2012, 159, 1876-1893.	5.2	88
24	Extinction of premixed H2/air flames: Chemical kinetics and molecular diffusion effects. Combustion and Flame, 2005, 142, 374-387.	5.2	87
25	Measurement of laminar flame speeds through digital particle image velocimetry: Mixtures of methane and ethane with hydrogen, oxygen, nitrogen, and helium. Proceedings of the Combustion Institute, 2002, 29, 1419-1426.	3.9	86
26	Chemical kinetic study of a novel lignocellulosic biofuel: Di-n-butyl ether oxidation in a laminar flow reactor and flames. Combustion and Flame, 2014, 161, 798-809.	5.2	85
27	Methane reforming and its potential effect on the efficiency and pollutant emissions of lean methaneâ€“air combustion. Chemical Engineering Science, 2001, 56, 1541-1549.	3.8	71
28	Oxidation of small alkyl esters in flames. Combustion and Flame, 2014, 161, 810-817.	5.2	63
29	Determination of laminar flame speeds using stagnation and spherically expanding flames: Molecular transport and radiation effects. Combustion and Flame, 2014, 161, 2305-2316.	5.2	60
30	Dynamics and structure of unsteady, strained, laminar premixed flames. Proceedings of the Combustion Institute, 1994, 25, 1365-1373.	0.3	59
31	Flame propagation of mixtures of air with binary liquid fuel mixtures. Proceedings of the Combustion Institute, 2011, 33, 955-961.	3.9	55
32	Flame Studies of Conventional and Alternative Jet Fuels. Journal of Propulsion and Power, 2011, 27, 856-863.	2.2	52
33	Mid-infrared laser absorption tomography for quantitative 2D thermochemistry measurements in premixed jet flames. Applied Physics B: Lasers and Optics, 2018, 124, 1.	2.2	51
34	Unsteady response of C3H3/Air laminar premixed flames submitted to mixture composition oscillations. Proceedings of the Combustion Institute, 2000, 28, 1841-1850.	3.9	49
35	Structure and propagation of premixed flame in nozzle-generated counterflow. Combustion and Flame, 1997, 109, 620-638.	5.2	46
36	Non-premixed hydrocarbon ignition at high strain rates. Proceedings of the Combustion Institute, 1998, 27, 641-648.	0.3	43

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37	An unsteady laminar flamelet model for non-premixed combustion. Combustion Theory and Modelling, 2000, 4, 77-97.	1.9	43
38	Flame studies of C2 hydrocarbons. Proceedings of the Combustion Institute, 2013, 34, 711-718.	3.9	42
39	Flame propagation of mixtures of air with high molecular weight neat hydrocarbons and practical jet and diesel fuels. Proceedings of the Combustion Institute, 2013, 34, 727-733.	3.9	41
40	Experimental and modeling study of the oxidation of n- and iso-butanal. Combustion and Flame, 2013, 160, 1609-1626.	5.2	40
41	Direct numerical simulations of probe effects in low-pressure flame sampling. Proceedings of the Combustion Institute, 2015, 35, 821-829.	3.9	40
42	Direct numerical simulation of heat release and NO x formation in turbulent nonpremixed flames. Combustion and Flame, 1999, 119, 69-83.	5.2	39
43	Chemical kinetic model uncertainty minimization through laminar flame speed measurements. Combustion and Flame, 2016, 172, 136-152.	5.2	39
44	Reactor and Technical Feasibility Aspects of a CO2Decomposition-Based Power Generation Cycle, Utilizing a High-Temperature Membrane Reactor. Industrial & Engineering Chemistry Research, 2003, 42, 2618-2626.	3.7	35
45	Laminar flame propagation of atmospheric iso-cetane/air and decalin/air mixtures. Combustion and Flame, 2014, 161, 154-161.	5.2	34
46	A study of propagation of spherically expanding and counterflow laminar flames using direct measurements and numerical simulations. Proceedings of the Combustion Institute, 2015, 35, 695-702.	3.9	34
47	Impact of Siloxane Impurities on the Performance of an Engine Operating on Renewable Natural Gas. Industrial & Engineering Chemistry Research, 2012, 51, 15786-15795.	3.7	31
48	Ignition of non-premixed counterflow flames of octane and decane isomers. Proceedings of the Combustion Institute, 2013, 34, 903-910.	3.9	31
49	Confined spherically expanding flame method for measuring laminar flame speeds: Revisiting the assumptions and application to C1C4 hydrocarbon flames. Combustion and Flame, 2020, 212, 79-92.	5.2	29
50	Ignition of non-premixed C3â€“C12 n-alkane flames. Combustion and Flame, 2012, 159, 465-475.	5.2	28
51	Studies of premixed and non-premixed hydrogen flames. Combustion and Flame, 2015, 162, 1078-1094.	5.2	28
52	Ignition of non-premixed cyclohexane and mono-alkylated cyclohexane flames. Proceedings of the Combustion Institute, 2013, 34, 873-880.	3.9	27
53	Dynamics and structure of dusty reacting flows: inert particles in strained, laminar, premixed flames. Combustion and Flame, 1999, 117, 206-226.	5.2	26
54	Feasibility of Siloxane Removal from Biogas Using an Ultraviolet Photodecomposition Technique. Industrial & Engineering Chemistry Research, 2018, 57, 7383-7394.	3.7	26

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55	Assessment of counterflow to measure laminar burning velocities using direct numerical simulations. Combustion Theory and Modelling, 2012, 16, 419-433.	1.9	25
56	Extinction of near-limit premixed flames in microgravity. Proceedings of the Combustion Institute, 2000, 28, 1875-1882.	3.9	24
57	Application of a flow-through catalytic membrane reactor (FTCMR) for the destruction of a chemical warfare simulant. Journal of Membrane Science, 2011, 376, 119-131.	8.2	24
58	Use of Steam Activation as a Post-treatment Technique in the Preparation of Carbon Molecular Sieve Membranes. Industrial & Engineering Chemistry Research, 2013, 52, 1122-1132.	3.7	23
59	Thermal and Ludwigâ€“Soret diffusion effects on near-boundary ignition behavior of reacting mixtures. Proceedings of the Combustion Institute, 2017, 36, 1505-1511.	3.9	23
60	Effect of n-dodecane decomposition on its fundamental flame properties. Combustion and Flame, 2018, 190, 65-73.	5.2	23
61	Membrane-based reactive separations for power generation applications: oxygen lancing. Chemical Engineering Science, 2003, 58, 1043-1052.	3.8	21
62	KINETICS PATHS TO RADICAL-INDUCED IGNITION OF METHANE/AIR MIXTURES. Combustion Science and Technology, 2005, 177, 2275-2298.	2.3	21
63	Extinction Studies of Flames of Heavy Neat Hydrocarbons and Practical Fuels. Journal of Propulsion and Power, 2013, 29, 352-361.	2.2	21
64	Comparative behavior of piloted turbulent premixed jet flames of C 1 C 8 hydrocarbons. Combustion and Flame, 2017, 180, 88-101.	5.2	21
65	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
66	Extinction of lean near-limit methane/air flames at elevated pressures under normal- and reduced-gravity. Proceedings of the Combustion Institute, 2011, 33, 1171-1178.	3.9	20
67	Structure and extinction of unsteady, counterflowing, strained, non-premixed flames. International Journal of Energy Research, 2000, 24, 989-1010.	4.5	19
68	A comparative study on the extinction characteristics of non-premixed dimethyl ether and ethanol flames. Proceedings of the Combustion Institute, 2011, 33, 1003-1010.	3.9	19
69	On the Rational Interpretation of Data on Laminar Flame Speeds and Ignition Delay Times. Combustion Science and Technology, 2015, 187, 27-36.	2.3	19
70	Binary diffusion coefficients and non-premixed flames extinction of long-chain alkanes. Proceedings of the Combustion Institute, 2017, 36, 1523-1530.	3.9	19
71	Parameters influencing the burning rate of laminar flames propagating into a reacting mixture. Proceedings of the Combustion Institute, 2019, 37, 1513-1520.	3.9	18
72	Propagation and extinction of cyclopentadiene flames. Proceedings of the Combustion Institute, 2013, 34, 787-794.	3.9	17

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73	Effect of Siloxanes Contained in Natural Gas on the Operation of a Residential Furnace. Industrial & Engineering Chemistry Research, 2013, 52, 6253-6261.	3.7	17
74	Oxygen composition modulation effects on flame propagation and NOx formation in methane/air premixed flames. Proceedings of the Combustion Institute, 2000, 28, 1825-1831.	3.9	16
75	Two-dimensional effects in counterflow methane flames. Proceedings of the Combustion Institute, 2017, 36, 1387-1394.	3.9	16
76	Carbon oxidation in turbulent premixed jet flames: A comparative experimental and numerical study of ethylene, n-heptane, and toluene. Combustion and Flame, 2020, 221, 371-383.	5.2	14
77	Fate of Siloxane Impurities During the Combustion of Renewable Natural Gas. Combustion Science and Technology, 2013, 185, 953-974.	2.3	13
78	Experimental and numerical studies of fuel and hydrodynamic effects on piloted turbulent premixed jet flames. Proceedings of the Combustion Institute, 2017, 36, 1877-1884.	3.9	13
79	Effects of confinement, geometry, inlet velocity profile, and Reynolds number on the asymmetry of opposed-jet flows. Theoretical and Computational Fluid Dynamics, 2018, 32, 349-369.	2.2	13
80	Fundamental Study of the Oxidation Characteristics and Pollutant Emissions of Model Biodiesel Fuels. Industrial & Engineering Chemistry Research, 2010, 49, 10392-10398.	3.7	11
81	Effects of electrode geometry on transient plasma induced ignition. Journal Physics D: Applied Physics, 2013, 46, 205201.	2.8	11
82	An apparatus-independent extinction strain rate in counterflow flames. Proceedings of the Combustion Institute, 2019, 37, 1979-1987.	3.9	11
83	Formation of Nitrogen Oxides in Flames of Model Biodiesel Fuels. Industrial & Engineering Chemistry Research, 2012, 51, 9719-9732.	3.7	10
84	Flame ignition in the counterflow configuration: Reassessing the experimental assumptions. Combustion and Flame, 2016, 174, 37-49.	5.2	10
85	Propagation and extinction of subatmospheric counterflow methane flames. Combustion and Flame, 2018, 195, 117-127.	5.2	10
86	Assessment of experimental observables for local extinction through unsteady laminar flame calculations. Combustion and Flame, 2019, 207, 196-204.	5.2	10
87	On strained flames with hypergolic reactants: The H2/NO/F2 system in high-speed, supersonic and subsonic mixing-layer combustion. Proceedings of the Combustion Institute, 1996, 26, 2885-2893.	0.3	9
88	Effects of inert dust clouds on the extinction of strained, laminar flames at normal-and micro-gravity. Proceedings of the Combustion Institute, 2000, 28, 2921-2929.	3.9	9
89	Premixed flame extinction by inert particles in normal- and micro-gravity. Combustion and Flame, 2002, 129, 179-191.	5.2	9
90	Effect of unsteady pressure rise on flame propagation and near-cold-wall ignition. Proceedings of the Combustion Institute, 2019, 37, 1639-1646.	3.9	9

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91	Extinction studies of non-premixed iso -cetane and decalin flames. Proceedings of the Combustion Institute, 2015, 35, 965-972.	3.9	8
92	Low Cost Image Processing of Bunsen Flame Photography for Estimation of Flame Speeds. Combustion Science and Technology, 2019, 191, 1123-1138.	2.3	8
93	Hot particle ignition of methane flames. Proceedings of the Combustion Institute, 2002, 29, 1605-1612.	3.9	7
94	NON-PREMIXED IGNITION BY VITIATED AIR IN COUNTERFLOW CONFIGURATIONS. Combustion Science and Technology, 2006, 178, 635-653.	2.3	7
95	Effects of heat release and fuel type on highly turbulent premixed jet flames. Proceedings of the Combustion Institute, 2019, 37, 2565-2572.	3.9	7
96	Effects of Additives on the Non-Premixed Ignition of Ethylene in Air. Combustion Science and Technology, 2000, 156, 173-199.	2.3	6
97	Validation of nitrogen kinetics in high pressure flames. Energy Conversion and Management, 2001, 42, 21-34.	9.2	6
98	The use of OCM reactors for ignition enhancement of natural gas combustion for practical applications: Reactor design aspects. Chemical Engineering Science, 2006, 61, 6637-6645.	3.8	5
99	Propagation of sub-atmospheric methyl formate flames. Combustion and Flame, 2018, 189, 24-32.	5.2	5
100	Radiation effects in confined spherically expanding flames: Application to C5C10 flames at engine-relevant conditions. Proceedings of the Combustion Institute, 2021, 38, 2195-2203.	3.9	5
101	Effects of combustible dust clouds on the extinction behavior of strained, laminar premixed flames in normal gravity. Proceedings of the Combustion Institute, 2002, 29, 1487-1493.	3.9	3
102	Solid fuel burning in steady, strained, premixed flow fields: the graphite/air/methane system. International Journal of Energy Research, 2000, 24, 1257-1276.	4.5	2
103	Ignition enhancement by in situ generated C2 additives for natural gas practical combustor applications. Chemical Engineering Science, 2004, 59, 5311-5318.	3.8	2
104	Effects of combustible dust clouds on premixed flame extinction in normal- and micro-gravity. Proceedings of the Combustion Institute, 2005, 30, 2369-2377.	3.9	2
105	Study of Silane Decomposition during the Combustion of Renewable Natural Gas. Industrial & Engineering Chemistry Research, 2014, 53, 12993-13005.	3.7	2
106	Ignition of Non-Premixed Flames of Ethylene/n-Dodecane Blends. Journal of Propulsion and Power, 2015, 31, 889-895.	2.2	2
107	Hot-gas ignition of non-premixed methane flames in the presence of inert particles. Proceedings of the Combustion Institute, 2005, 30, 431-437.	3.9	1