Fokion N Egolfopoulos

List of Publications by Year
in descending order

107 papers	6,325 citations	93792 39 h-index	78623 77 g-index
116 all docs	116 docs citations	116 times ranked	3195 citing authors

#	Article	IF	Citations
1	Radiation effects in confined spherically expanding flames: Application to C5C10 flames at engine-relevant conditions. Proceedings of the Combustion Institute, 2021, 38, 2195-2203.	2.4	5
2	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.	2.8	29
3	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.	2.8	14
4	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.	2.8	21
5	Parameters influencing the burning rate of laminar flames propagating into a reacting mixture. Proceedings of the Combustion Institute, 2019, 37, 1513-1520.	2.4	18
6	Effect of unsteady pressure rise on flame propagation and near-cold-wall ignition. Proceedings of the Combustion Institute, 2019, 37, 1639-1646.	2.4	9
7	Assessment of experimental observables for local extinction through unsteady laminar flame calculations. Combustion and Flame, 2019, 207, 196-204.	2.8	10
8	Low Cost Image Processing of Bunsen Flame Photography for Estimation of Flame Speeds. Combustion Science and Technology, 2019, 191, 1123-1138.	1.2	8
9	Effects of heat release and fuel type on highly turbulent premixed jet flames. Proceedings of the Combustion Institute, 2019, 37, 2565-2572.	2.4	7
10	An apparatus-independent extinction strain rate in counterflow flames. Proceedings of the Combustion Institute, 2019, 37, 1979-1987.	2.4	11
11	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.	2.8	304
12	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.	0.9	13
13	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.	2.8	247
14	Effect of n-dodecane decomposition on its fundamental flame properties. Combustion and Flame, 2018, 190, 65-73.	2.8	23
15	Propagation and extinction of subatmospheric counterflow methane flames. Combustion and Flame, 2018, 195, 117-127.	2.8	10
16	Propagation of sub-atmospheric methyl formate flames. Combustion and Flame, 2018, 189, 24-32.	2.8	5
17	Feasibility of Siloxane Removal from Biogas Using an Ultraviolet Photodecomposition Technique. Industrial & Engineering Chemistry Research, 2018, 57, 7383-7394.	1.8	26
18	Mid-infrared laser absorption tomography for quantitative 2D thermochemistry measurements in premixed jet flames. Applied Physics B: Lasers and Optics, 2018, 124, 1.	1.1	51

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19	Comparative behavior of piloted turbulent premixed jet flames of C 1 C 8 hydrocarbons. Combustion and Flame, 2017, 180, 88-101.	2.8	21
20	Binary diffusion coefficients and non-premixed flames extinction of long-chain alkanes. Proceedings of the Combustion Institute, 2017, 36, 1523-1530.	2.4	19
21	Two-dimensional effects in counterflow methane flames. Proceedings of the Combustion Institute, 2017, 36, 1387-1394.	2.4	16
22	Experimental and numerical studies of fuel and hydrodynamic effects on piloted turbulent premixed jet flames. Proceedings of the Combustion Institute, 2017, 36, 1877-1884.	2.4	13
23	Thermal and Ludwigâ€"Soret diffusion effects on near-boundary ignition behavior of reacting mixtures. Proceedings of the Combustion Institute, 2017, 36, 1505-1511.	2.4	23
24	Flame ignition in the counterflow configuration: Reassessing the experimental assumptions. Combustion and Flame, 2016, 174, 37-49.	2.8	10
25	Chemical kinetic model uncertainty minimization through laminar flame speed measurements. Combustion and Flame, 2016, 172, 136-152.	2.8	39
26	Laminar flame speeds under engine-relevant conditions: Uncertainty quantification and minimization in spherically expanding flame experiments. Combustion and Flame, 2016, 163, 270-283.	2.8	131
27	Extinction studies of non-premixed iso -cetane and decalin flames. Proceedings of the Combustion Institute, 2015, 35, 965-972.	2.4	8
28	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.	2.4	34
29	Direct numerical simulations of probe effects in low-pressure flame sampling. Proceedings of the Combustion Institute, 2015, 35, 821-829.	2.4	40
30	Ignition of Non-Premixed Flames of Ethylene/n-Dodecane Blends. Journal of Propulsion and Power, 2015, 31, 889-895.	1.3	2
31	On the Rational Interpretation of Data on Laminar Flame Speeds and Ignition Delay Times. Combustion Science and Technology, 2015, 187, 27-36.	1.2	19
32	Studies of premixed and non-premixed hydrogen flames. Combustion and Flame, 2015, 162, 1078-1094.	2.8	28
33	Laminar flame propagation of atmospheric iso-cetane/air and decalin/air mixtures. Combustion and Flame, 2014, 161, 154-161.	2.8	34
34	Determination of laminar flame speeds using stagnation and spherically expanding flames: Molecular transport and radiation effects. Combustion and Flame, 2014, 161, 2305-2316.	2.8	60
35	Oxidation of small alkyl esters in flames. Combustion and Flame, 2014, 161, 810-817.	2.8	63
36	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.	2.8	85

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37	Study of Silane Decomposition during the Combustion of Renewable Natural Gas. Industrial & Engineering Chemistry Research, 2014, 53, 12993-13005.	1.8	2
38	A comprehensive experimental and modeling study of iso-pentanol combustion. Combustion and Flame, 2013, 160, 2712-2728.	2.8	95
39	Effects of electrode geometry on transient plasma induced ignition. Journal Physics D: Applied Physics, 2013, 46, 205201.	1.3	11
40	Experimental and modeling study of the oxidation of n- and iso-butanal. Combustion and Flame, 2013, 160, 1609-1626.	2.8	40
41	Flame studies of C2 hydrocarbons. Proceedings of the Combustion Institute, 2013, 34, 711-718.	2.4	42
42	Ignition of non-premixed cyclohexane and mono-alkylated cyclohexane flames. Proceedings of the Combustion Institute, 2013, 34, 873-880.	2.4	27
43	Ignition of non-premixed counterflow flames of octane and decane isomers. Proceedings of the Combustion Institute, 2013, 34, 903-910.	2.4	31
44	Propagation and extinction of cyclopentadiene flames. Proceedings of the Combustion Institute, 2013, 34, 787-794.	2.4	17
45	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.	2.4	41
46	Extinction Studies of Flames of Heavy Neat Hydrocarbons and Practical Fuels. Journal of Propulsion and Power, 2013, 29, 352-361.	1.3	21
47	Effect of Siloxanes Contained in Natural Gas on the Operation of a Residential Furnace. Industrial & Engineering Chemistry Research, 2013, 52, 6253-6261.	1.8	17
48	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.	1.8	23
49	Fate of Siloxane Impurities During the Combustion of Renewable Natural Gas. Combustion Science and Technology, 2013, 185, 953-974.	1.2	13
50	Formation of Nitrogen Oxides in Flames of Model Biodiesel Fuels. Industrial & Engineering Chemistry Research, 2012, 51, 9719-9732.	1.8	10
51	Assessment of counterflow to measure laminar burning velocities using direct numerical simulations. Combustion Theory and Modelling, 2012, 16, 419-433.	1.0	25
52	Impact of Siloxane Impurities on the Performance of an Engine Operating on Renewable Natural Gas. Industrial & Engineering Chemistry Research, 2012, 51, 15786-15795.	1.8	31
53	Ignition of non-premixed C3â€“C12 n-alkane flames. Combustion and Flame, 2012, 159, 465-475.	2.8	28
54	Propagation and extinction of benzene and alkylated benzene flames. Combustion and Flame, 2012, 159, 1070-1081.	2.8	92

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55	Effects of fuel branching on the propagation of octane isomers flames. Combustion and Flame, 2012, 159, 1426-1436.	2.8	90
56	Soot formation in flames of model biodiesel fuels. Combustion and Flame, 2012, 159, 1876-1893.	2.8	88
57	Comprehensive chemical kinetic modeling of the oxidation of 2-methylalkanes from C7 to C20. Combustion and Flame, 2011, 158, 2338-2357.	2.8	466
58	Flame propagation of butanol isomers/air mixtures. Proceedings of the Combustion Institute, 2011, 33, 987-993.	2.4	113
59	Studies of n-propanol, iso-propanol, and propane flames. Combustion and Flame, 2011, 158, 501-510.	2.8	102
60	Studies of C4 and C10 methyl ester flames. Combustion and Flame, 2011, 158, 1507-1519.	2.8	102
61	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.	4.1	24
62	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.	2.4	20
63	Flame propagation of mixtures of air with binary liquid fuel mixtures. Proceedings of the Combustion Institute, 2011, 33, 955-961.	2.4	55
64	An experimental and modeling study of the propagation of cyclohexane and mono-alkylated cyclohexane flames. Proceedings of the Combustion Institute, 2011, 33, 971-978.	2.4	96
65	Combustion characteristics of alternative gaseous fuels. Proceedings of the Combustion Institute, 2011, 33, 887-894.	2.4	149
66	A comparative study on the extinction characteristics of non-premixed dimethyl ether and ethanol flames. Proceedings of the Combustion Institute, 2011, 33, 1003-1010.	2.4	19
67	Flame Studies of Conventional and Alternative Jet Fuels. Journal of Propulsion and Power, 2011, 27, 856-863.	1.3	52
68	Propagation and extinction of premixed C5â€“C12 n-alkane flames. Combustion and Flame, 2010, 157, 277-287.	2.8	307
69	A comparative experimental and computational study of methanol, ethanol, and n-butanol flames. Combustion and Flame, 2010, 157, 1989-2004.	2.8	346
70	Fundamental Study of the Oxidation Characteristics and Pollutant Emissions of Model Biodiesel Fuels. Industrial & Engineering Chemistry Research, 2010, 49, 10392-10398.	1.8	11
71	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.	2.4	181
72	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.	1.9	5

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73	Extinction of premixed flames of practical liquid fuels: Experiments and simulations. Combustion and Flame, 2006, 144, 448-460.	2.8	96
74	NON-PREMIXED IGNITION BY VITIATED AIR IN COUNTERFLOW CONFIGURATIONS. Combustion Science and Technology, 2006, 178, 635-653.	1.2	7
75	Effects of combustible dust clouds on premixed flame extinction in normal- and micro-gravity. Proceedings of the Combustion Institute, 2005, 30, 2369-2377.	2.4	2
76	Extinction of premixed H2/air flames: Chemical kinetics and molecular diffusion effects. Combustion and Flame, 2005, 142, 374-387.	2.8	87
77	Hot-gas ignition of non-premixed methane flames in the presence of inert particles. Proceedings of the Combustion Institute, 2005, 30, 431-437.	2.4	1
78	KINETICS PATHS TO RADICAL-INDUCED IGNITION OF METHANE/AIR MIXTURES. Combustion Science and Technology, 2005, 177, 2275-2298.	1.2	21
79	Ignition enhancement by in situ generated C2 additives for natural gas practical combustor applications. Chemical Engineering Science, 2004, 59, 5311-5318.	1.9	2
80	Membrane-based reactive separations for power generation applications: oxygen lancing. Chemical Engineering Science, 2003, 58, 1043-1052.	1.9	21
81	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.	1.8	35
82	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.	2.4	3
83	Hot particle ignition of methane flames. Proceedings of the Combustion Institute, 2002, 29, 1605-1612.	2.4	7
84	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.	2.4	86
85	Premixed flame extinction by inert particles in normal- and micro-gravity. Combustion and Flame, 2002, 129, 179-191.	2.8	9
86	Methane reforming and its potential effect on the efficiency and pollutant emissions of lean methaneâ€“air combustion. Chemical Engineering Science, 2001, 56, 1541-1549.	1.9	71
87	Strain-rate effects on hydrogen-enhanced lean premixed combustion. Combustion and Flame, 2001, 124, 717-720.	2.8	116
88	Validation of nitrogen kinetics in high pressure flames. Energy Conversion and Management, 2001, 42, 21-34.	4.4	6
89	Structure and extinction of unsteady, counterflowing, strained, non-premixed flames. International Journal of Energy Research, 2000, 24, 989-1010.	2.2	19
90	Solid fuel burning in steady, strained, premixed flow fields: the graphite/air/methane system. International Journal of Energy Research, 2000, 24, 1257-1276.	2.2	2

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91	Oxygen composition modulation effects on flame propagation and NOx formation in methane/air premixed flames. Proceedings of the Combustion Institute, 2000, 28, 1825-1831.	2.4	16
92	Unsteady response of C3H3/Air laminar premixed flames submitted to mixture composition oscillations. Proceedings of the Combustion Institute, 2000, 28, 1841-1850.	2.4	49
93	Extinction of near-limit premixed flames in microgravity. Proceedings of the Combustion Institute, 2000, 28, 1875-1882.	2.4	24
94	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.	2.4	9
95	An unsteady laminar flamelet model for non-premixed combustion. Combustion Theory and Modelling, 2000, 4, 77-97.	1.0	43
96	Effects of Additives on the Non-Premixed Ignition of Ethylene in Air. Combustion Science and Technology, 2000, 156, 173-199.	1.2	6
97	Dynamics and structure of dusty reacting flows: inert particles in strained, laminar, premixed flames. Combustion and Flame, 1999, 117, 206-226.	2.8	26
98	Direct numerical simulation of heat release and NO x formation in turbulent nonpremixed flames. Combustion and Flame, 1999, 119, 69-83.	2.8	39
99	Direct experimental determination of laminar flame speeds. Proceedings of the Combustion Institute, 1998, 27, 513-519.	0.3	355
100	Non-premixed hydrocarbon ignition at high strain rates. Proceedings of the Combustion Institute, 1998, 27, 641-648.	0.3	43
101	Wall effects on the propagation and extinction of steady, strained, laminar premixed flames. Combustion and Flame, 1997, 109, 237-252.	2.8	89
102	Structure and propagation of premixed flame in nozzle-generated counterflow. Combustion and Flame, 1997, 109, 620-638.	2.8	46
103	Unsteady counterflowing strained diffusion flames: diffusion-limited frequency response. Journal of Fluid Mechanics, 1996, 318, 1.	1.4	180
104	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
105	Dynamics and structure of unsteady, strained, laminar premixed flames. Proceedings of the Combustion Institute, 1994, 25, 1365-1373.	0.3	59
106	Chain mechanisms in the overall reaction orders in laminar flame propagation. Combustion and Flame, 1990, 80, 7-16.	2.8	210
107	Laminar flame speeds of methane-air mixtures under reduced and elevated pressures. Combustion and Flame, 1989, 76, 375-391.	2.8	256