Nam Il Kim

List of Publications by Year
in descending order

52 papers	1,965 citations	516215 16 h-index	243296 44 g-index
52 all docs	52 docs citations	52 times ranked	1114 citing authors

#	Article	IF	Citations
1	Characteristics of combustion in a narrow channel with a temperature gradient. Proceedings of the Combustion Institute, 2005, 30, 2429-2436.	2.4	441
2	A comprehensive review of measurements and data analysis of laminar burning velocities for various fuel+air mixtures. Progress in Energy and Combustion Science, 2018, 68, 197-267.	15.8	329
3	Flame stabilization and emission of small Swiss-roll combustors as heaters. Combustion and Flame, 2005, 141, 229-240.	2.8	253
4	Development and scale effects of small Swiss-roll combustors. Proceedings of the Combustion Institute, 2007, 31, 3243-3250.	2.4	149
5	Springtail-inspired superomniphobic surface with extreme pressure resistance. Science Advances, 2018, 4, eaat4978.	4.7	112
6	A numerical study on propagation of premixed flames in small tubes. Combustion and Flame, 2006, 146, 283-301.	2.8	107
7	Lift-off characteristics of triple flame with concentration gradient. Proceedings of the Combustion Institute, 2005, 30, 367-374.	2.4	51
8	Scale and material effects on flame characteristics in small heat recirculation combustors of a counter-current channel type. Applied Thermal Engineering, 2010, 30, 2227-2235.	3.0	42
9	Flammability limits of stationary flames in tubes at low pressure. Combustion and Flame, 2005, 141, 78-88.	2.8	35
10	The propagation of tribrachial flames in a confined channel. Combustion and Flame, 2006, 146, 168-179.	2.8	31
11	An assembled annular stepwise diverging tube for the measurement of laminar burning velocity and quenching distance. Combustion and Flame, 2014, 161, 1499-1506.	2.8	28
12	The stabilization of a methaneâ€“air edge flame within a mixing layer in a narrow channel. Combustion and Flame, 2010, 157, 201-203.	2.8	26
13	Direct prediction of laminar burning velocity and quenching distance of hydrogen-air flames using an annular stepwise diverging tube (ASDT). Combustion and Flame, 2016, 164, 397-399.	2.8	21
14	Flame behavior in heated porous sand bed. Proceedings of the Combustion Institute, 2007, 31, 2117-2124.	2.4	19
15	Laminar burning velocity predictions by meso-scale flames in an annular diverging tube. Fuel, 2011, 90, 2217-2223.	3.4	18
16	Air tightness measurement with transient methods using sudden expansion from a compressed chamber. Building and Environment, 2011, 46, 1937-1945.	3.0	17
17	Reduction of CO2 emission for solar power backup by direct integration of oxy-combustion supercritical CO2 power cycle with concentrated solar power. Energy Conversion and Management, 2019, 201, 112161.	4.4	17
18	Extinction of a premixed flame by a large variation in axial velocity. Combustion and Flame, 2004, 136, 467-480.	2.8	16

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19	An experimental study of the fuel dilution effect on the propagation of methaneâ€“air tribrachial flames. Combustion and Flame, 2008, 153, 355-366.	2.8	16
20	Experiment on the effect of Pt-catalyst on the characteristics of a small heat-regenerative CH4â€“air premixed combustor. Applied Energy, 2010, 87, 3409-3416.	5.1	16
21	Unsteady propagation of premixed methane/propane flames in a mesoscale disk burner of variable-gaps. Proceedings of the Combustion Institute, 2019, 37, 1861-1868.	2.4	15
22	Flame structures and behaviors of opposed flow non-premixed flames in mesoscale channels. Combustion and Flame, 2014, 161, 2361-2370.	2.8	13
23	Direct prediction of laminar burning velocity using an adapted annular stepwise diverging tube. Proceedings of the Combustion Institute, 2013, 34, 755-762.	2.4	12
24	Characteristics of opposed flow partially premixed flames in mesoscale channels at low strain rates. Proceedings of the Combustion Institute, 2015, 35, 3439-3446.	2.4	12
25	Surface tension, light absorbance, and effective viscosity of single droplets of water-emulsified n-decane, n-dodecane, and n-hexadecane. Fuel, 2019, 240, 1-9.	3.4	12
26	Laminar premixed flame propagation using large axial velocity variation. Proceedings of the Combustion Institute, 2000, 28, 1867-1874.	2.4	11
27	Effect of an inlet temperature disturbance on the propagation of methaneâ€“air premixed flames in small tubes. Combustion and Flame, 2009, 156, 1332-1338.	2.8	11
28	Improvement in the applicability of the air tightness measurement using a sudden expansion of compressed air. Building and Environment, 2013, 61, 133-139.	3.0	11
29	Propagation and quenching of premixed flames in a concentration-length-velocity diagram. Proceedings of the Combustion Institute, 2017, 36, 4243-4251.	2.4	11
30	Non-premixed flame characteristics of opposed methane jets in coaxial narrow air stream tubes. International Journal of Heat and Fluid Flow, 2010, 31, 680-688.	1.1	10
31	Direct estimation of edge flame speeds of lifted laminar jet flames and a modified stabilization mechanism. Combustion and Flame, 2017, 186, 140-149.	2.8	10
32	Structures of laminar lifted flames in a non-premixed jet and their relationship with similarity solutions. Combustion and Flame, 2020, 219, 283-292.	2.8	9
33	Breakup characteristics of a single-droplet of water-in-oil emulsion impinging on a hot surface. Fuel, 2021, 291, 120191.	3.4	9
34	Lift-off characteristics of non-premixed jet flames in laminar/turbulent transition. Combustion and Flame, 2022, 238, 111948.	2.8	8
35	Relationships between dynamic behavior and properties of a single droplet of water-emulsified n-dodecane. Fuel, 2018, 220, 130-139.	3.4	7
36	Characteristics of a free-falling single-droplet of water-in-oil emulsion broken up by a pulse laser. Fuel, 2020, 264, 116863.	3.4	7

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37	Numerical study of opposed non-premixed jet flames of methane in a coaxial narrow air tube. Combustion and Flame, 2012, 159, 722-733.	2.8	6
38	Effects of propane pyrolysis on basic flame structures of non-premixed jet flame. Journal of Mechanical Science and Technology, 2015, 29, 4053-4059.	0.7	6
39	Effects of ignition disturbance on flame propagation of methane and propane in a narrow-gap-disk-burner. Combustion and Flame, 2020, 215, 124-133.	2.8	6
40	Premixed flame propagation of CH4 and C3H8 in a narrow-gap disk burner using constant-volume processes at elevated-pressure. Combustion and Flame, 2021, 231, 111482.	2.8	6
41	Flattening Characteristics of Ni₂₀Cr Thermal-Sprayed Coating Layers on Preheated SCM415 Substrates. Materials Transactions, 2011, 52, 1515-1521.	0.4	5
42	Investigation on breakup characteristics of multicomponent single droplets of nanofluid and water-in-oil emulsion using a pulse laser. Fuel, 2022, 310, 122300.	3.4	5
43	Experimental study on tribrachial flames in narrow channels with small fuel concentration gradients. Experimental Thermal and Fluid Science, 2010, 34, 1432-1438.	1.5	4
44	Stabilization criteria of laminar lifted flames in a non-premixed jet through experiments at elevated pressures. Fuel, 2022, 314, 122797.	3.4	4
45	Fuel pyrolysis and its effects on soot formation in non-premixed laminar jet flames of methane, propane, and DME. Mathematical Modelling of Natural Phenomena, 2018, 13, 56.	0.9	3
46	Flame stabilization and soot emission of methane jet flames for CO2 diluted oxy-combustion at elevated pressure. Combustion and Flame, 2021, 231, 111490.	2.8	3
47	Precise measurement of the length-scale effects on the flame propagation velocity using a compact annular-stepwise-diverging-tube (ASDT). Combustion and Flame, 2018, 191, 210-212.	2.8	2
48	Effects of N2/CO2 dilution on flame propagation velocities and quenching distances of oxy-methane premixed mixtures using an Annular-Stepwise-Diverging-Tube (ASDT). Mathematical Modelling of Natural Phenomena, 2018, 13, 55.	0.9	2
49	Flame-seed structures: Original structures of nonpremixed flames in mixing layers of methane, ethane, propane and DME. Proceedings of the Combustion Institute, 2017, 36, 4235-4242.	2.4	1
50	An experimental study for the flow rates of automatic pressure smoke dampers and their applications. Journal of Mechanical Science and Technology, 2013, 27, 1313-1320.	0.7	0
51	Modelling in Ecology, Epidemiology and Evolution. Mathematical Modelling of Natural Phenomena, 2018, 13, E2.	0.9	0
52	Emission Characteristics of Ultra-Fine Particulate Matter (PM<0.1Î¼m) from Red-Heated Metal Fiber Flame Burners. Journal of the Korean Society of Combustion, 2020, 25, 28-35.	0.1	0