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	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
2	Lift-off characteristics of non-premixed jet flames in laminar/turbulent transition. Combustion and Flame, 2022, 238, 111948.	2.8	8
3	Stabilization criteria of laminar lifted flames in a non-premixed jet through experiments at elevated pressures. Fuel, 2022, 314, 122797.	3.4	4
4	Breakup characteristics of a single-droplet of water-in-oil emulsion impinging on a hot surface. Fuel, 2021, 291, 120191.	3.4	9
5	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
6	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
7	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
8	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
9	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
10	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
11	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
12	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
13	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
14	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
15	Relationships between dynamic behavior and properties of a single droplet of water-emulsified n-dodecane. Fuel, 2018, 220, 130-139.	3.4	7
16	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
17	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
18	Modelling in Ecology, Epidemiology and Evolution. Mathematical Modelling of Natural Phenomena, 2018, 13, E2.	0.9	0

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19	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
20	Springtail-inspired superomniphobic surface with extreme pressure resistance. Science Advances, 2018, 4, eaat4978.	4.7	112
21	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
22	Propagation and quenching of premixed flames in a concentration-length-velocity diagram. Proceedings of the Combustion Institute, 2017, 36, 4243-4251.	2.4	11
23	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
24	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
25	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
26	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
27	Flame structures and behaviors of opposed flow non-premixed flames in mesoscale channels. Combustion and Flame, 2014, 161, 2361-2370.	2.8	13
28	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
29	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
30	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
31	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
32	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
33	Flattening Characteristics of Ni₂₀Cr Thermal-Sprayed Coating Layers on Preheated SCM415 Substrates. Materials Transactions, 2011, 52, 1515-1521.	0.4	5
34	Air tightness measurement with transient methods using sudden expansion from a compressed chamber. Building and Environment, 2011, 46, 1937-1945.	3.0	17
35	Laminar burning velocity predictions by meso-scale flames in an annular diverging tube. Fuel, 2011, 90, 2217-2223.	3.4	18
36	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

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37	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
38	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
39	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
40	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
41	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
42	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
43	Development and scale effects of small Swiss-roll combustors. Proceedings of the Combustion Institute, 2007, 31, 3243-3250.	2.4	149
44	Flame behavior in heated porous sand bed. Proceedings of the Combustion Institute, 2007, 31, 2117-2124.	2.4	19
45	A numerical study on propagation of premixed flames in small tubes. Combustion and Flame, 2006, 146, 283-301.	2.8	107
46	The propagation of tribrachial flames in a confined channel. Combustion and Flame, 2006, 146, 168-179.	2.8	31
47	Characteristics of combustion in a narrow channel with a temperature gradient. Proceedings of the Combustion Institute, 2005, 30, 2429-2436.	2.4	441
48	Flammability limits of stationary flames in tubes at low pressure. Combustion and Flame, 2005, 141, 78-88.	2.8	35
49	Flame stabilization and emission of small Swiss-roll combustors as heaters. Combustion and Flame, 2005, 141, 229-240.	2.8	253
50	Lift-off characteristics of triple flame with concentration gradient. Proceedings of the Combustion Institute, 2005, 30, 367-374.	2.4	51
51	Extinction of a premixed flame by a large variation in axial velocity. Combustion and Flame, 2004, 136, 467-480.	2.8	16
52	Laminar premixed flame propagation using large axial velocity variation. Proceedings of the Combustion Institute, 2000, 28, 1867-1874.	2.4	11