Min Suk Cha

List of Publications by Year
in descending order

90 papers	2,156 citations	201385 27 h-index	264894 42 g-index
90 all docs	90 docs citations	90 times ranked	1344 citing authors

#	Article	IF	Citations
1	Optimization scheme of a rotating gliding arc reactor for partial oxidation of methane. Proceedings of the Combustion Institute, 2007, 31, 3343-3351.	2.4	137
2	Modeling Plasma-based CO₂ and CH₄ Conversion in Mixtures with N₂, O₂, and H₂O: The Bigger Plasma Chemistry Picture. Journal of Physical Chemistry C, 2018, 122, 8704-8723.	1.5	111
3	Effect of electric fields on reattachment and propagation speed of tribrachial flames in laminar coflow jets. Proceedings of the Combustion Institute, 2007, 31, 963-970.	2.4	90
4	Electron-induced dry reforming of methane in a temperature-controlled dielectric barrier discharge reactor. Journal Physics D: Applied Physics, 2013, 46, 415205.	1.3	76
5	Propagation rates of nonpremixed edge flames. Combustion and Flame, 2006, 146, 312-328.	2.8	71
6	Ozone Production With Dielectric Barrier Discharge: Effects of Power Source and Humidity. IEEE Transactions on Plasma Science, 2016, 44, 2288-2296.	0.6	68
7	Lifted flame stabilization in developing and developed regions of coflow jets for highly diluted propane. Proceedings of the Combustion Institute, 2000, 28, 2093-2099.	2.4	63
8	Plasma-controlled chemistry in plasma reforming of methane. International Journal of Hydrogen Energy, 2010, 35, 10967-10976.	3.8	60
9	Stability enhancement of ozone-assisted laminar premixed Bunsen flames in nitrogen co-flow. Combustion and Flame, 2014, 161, 917-926.	2.8	58
10	Effect of electric fields on the liftoff of nonpremixed turbulent jet flames. IEEE Transactions on Plasma Science, 2005, 33, 1703-1709.	0.6	56
11	Bidirectional ionic wind in nonpremixed counterflow flames with DC electric fields. Combustion and Flame, 2016, 168, 138-146.	2.8	54
12	Characteristics of lifted flames in nonpremixed turbulent confined jets. Proceedings of the Combustion Institute, 1996, 26, 121-128.	0.3	52
13	Partial oxidation of methane in a temperature-controlled dielectric barrier discharge reactor. Proceedings of the Combustion Institute, 2015, 35, 3447-3454.	2.4	50
14	Effect of excess oxygen in plasma reforming of diesel fuel. International Journal of Hydrogen Energy, 2010, 35, 4668-4675.	3.8	47
15	Transfer functions of laminar premixed flames subjected to forcing by acoustic waves, AC electric fields, and non-thermal plasma discharges. Proceedings of the Combustion Institute, 2017, 36, 4183-4192.	2.4	46
16	AC electric field induced vortex in laminar coflow diffusion flames. Proceedings of the Combustion Institute, 2015, 35, 3513-3520.	2.4	45
17	The reformation of liquid hydrocarbons in an aqueous discharge reactor. Journal Physics D: Applied Physics, 2015, 48, 215201.	1.3	43
18	Soot Reduction Under DC Electric Fields in Counterflow Non-Premixed Laminar Ethylene Flames. Combustion Science and Technology, 2014, 186, 644-656.	1.2	37

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19	Efficient Use of $hbox{CO}_{2}$ Reforming of Methane With an Arc-Jet Plasma. IEEE Transactions on Plasma Science, 2010, 38, 3291-3299.	0.6	35
20	DC field response of one-dimensional flames using an ionized layer model. Combustion and Flame, 2016, 163, 317-325.	2.8	35
21	Visualization of ionic wind in laminar jet flames. Combustion and Flame, 2017, 184, 246-248.	2.8	35
22	Premixed Combustion Under Electric Field in a Constant Volume Chamber. IEEE Transactions on Plasma Science, 2012, 40, 3131-3138.	0.6	34
23	Ignition modes of nanosecond discharge with bubbles in distilled water. Journal Physics D: Applied Physics, 2015, 48, 405206.	1.3	34
24	Fuel density effect on near nozzle flow field in small laminar coflow diffusion flames. Proceedings of the Combustion Institute, 2015, 35, 873-880.	2.4	34
25	Plasma-based multi-reforming for Gas-To-Liquid: tuning the plasma chemistry towards methanol. Scientific Reports, 2018, 8, 15929.	1.6	33
26	The effects of gaseous bubble composition and gap distance on the characteristics of nanosecond discharges in distilled water. Journal Physics D: Applied Physics, 2016, 49, 245203.	1.3	32
27	Nanosecond second harmonic generation for electric field measurements with temporal resolution shorter than laser pulse duration. Journal Physics D: Applied Physics, 2020, 53, 145201.	1.3	29
28	Tailored reforming of n-dodecane in an aqueous discharge reactor. Journal Physics D: Applied Physics, 2016, 49, 175201.	1.3	27
29	Microwave Plasma Jet in Water: Characterization and Feasibility to Wastewater Treatment. Plasma Chemistry and Plasma Processing, 2018, 38, 1003-1020.	1.1	25
30	Three-dimensional simulation of ionic wind in a laminar premixed Bunsen flame subjected to a transverse DC electric field. Combustion and Flame, 2019, 202, 90-106.	2.8	25
31	Effects of Hydrocarbons and Water Vapor on NO_x Using V₂O₅â"WO₃/TiO₂ Catalyst Reduction in Combination with Nonthermal Plasma. Industrial & Engineering Chemistry Research, 2007, 46, 5570-5575.	1.8	22
32	Tip opening of premixed bunsen flames: Extinction with negative stretch and local Karlovitz number. Combustion and Flame, 2015, 162, 1614-1621.	2.8	22
33	The effect of electrical conductivity on nanosecond discharges in distilled water and in methanol with argon bubbles. Journal Physics D: Applied Physics, 2017, 50, 185207.	1.3	22
34	Effects of Camphor Oil Addition to Diesel on the Nanostructures and Oxidative Reactivity of Combustion-Generated Soot. Energy & Fuels, 2019, 33, 12852-12864.	2.5	22
35	Microwave Plasma Jet in Water: Effect of Water Electrical Conductivity on Plasma Characteristics. Plasma Chemistry and Plasma Processing, 2020, 40, 169-185.	1.1	21
36	Synthesis of copper and copper oxide nanomaterials by electrical discharges in water with various electrical conductivities. Journal of Applied Physics, 2020, 127, .	1.1	21

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37	Analysis of the step responses of laminar premixed flames to forcing by non-thermal plasma. Proceedings of the Combustion Institute, 2017, 36, 4145-4153.	2.4	20
38	Decreasing liftoff height behavior in diluted laminar lifted methane jet flames. Proceedings of the Combustion Institute, 2019, 37, 2005-2012.	2.4	20
39	Kinetics and dynamics of nanosecond streamer discharge in atmospheric-pressure gas bubble suspended in distilled water under saturated vapor pressure conditions. Journal Physics D: Applied Physics, 2016, 49, 395205.	1.3	18
40	In-liquid arc plasma jet and its application to phenol degradation. Journal Physics D: Applied Physics, 2018, 51, 114005.	1.3	18
41	Steam reforming of methane in a temperature-controlled dielectric barrier discharge reactor: the role of electron-induced chemistry versus thermochemistry. Journal Physics D: Applied Physics, 2018, 51, 385201.	1.3	18
42	Dynamic responses of counterflow nonpremixed flames to AC electric field. Combustion and Flame, 2018, 198, 240-248.	2.8	17
43	Effect of AC electric field on flame spread in electrical wire: Variation in polyethylene insulation thickness and di-electrophoresis phenomenon. Combustion and Flame, 2019, 202, 107-118.	2.8	16
44	Time evolution of propagating nonpremixed flames in a counterflow, annular slot burner under AC electric fields. Proceedings of the Combustion Institute, 2017, 36, 1421-1430.	2.4	15
45	Flow instability in laminar jet flames driven by alternating current electric fields. Proceedings of the Combustion Institute, 2017, 36, 4175-4182.	2.4	15
46	Inevitable chemical effect of balance gas in low temperature plasma assisted combustion. Combustion and Flame, 2021, 225, 1-4.	2.8	15
47	Effect of swirl on lifted flame characteristics in nonpremixed jets. Combustion and Flame, 1999, 117, 636-645.	2.8	14
48	CF/sub 4/ decompositions using streamer- and glow-mode in dielectric barrier discharges. IEEE Transactions on Plasma Science, 2005, 33, 1041-1046.	0.6	14
49	Investigation of Gas Heating by Nanosecond Repetitively Pulsed Glow Discharges Used for Actuation of a Laminar Methane-Air Flame. Combustion Science and Technology, 2017, 189, 2012-2022.	1.2	14
50	Edge flame propagation via parallel electric fields in nonpremixed coflow jets. Proceedings of the Combustion Institute, 2019, 37, 5537-5544.	2.4	14
51	Propagating nonpremixed edge-flames in a counterflow, annular slot burner under DC electric fields. Combustion and Flame, 2016, 173, 114-122.	2.8	13
52	Instability and electrical response of small laminar coflow diffusion flames under AC electric fields: Toroidal vortex formation and oscillating and spinning flames. Proceedings of the Combustion Institute, 2017, 36, 1621-1628.	2.4	13
53	Characteristics of Dielectric Barrier Glow Discharges with a Low-Frequency Generator in Nitrogen. Journal of the Korean Physical Society, 2003, 43, 732-737.	0.3	13
54	Carbon-based nanomaterial synthesis using nanosecond electrical discharges in immiscible layered liquids: n-heptane and water. Journal Physics D: Applied Physics, 2018, 51, 244003.	1.3	12

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55	Kinetic study of plasma assisted oxidation of H2 for an undiluted lean mixture. Combustion and Flame, 2022, 242, 112205.	2.8	12
56	Mechanism on oscillating lifted flames in nonpremixed laminar coflow jets. Proceedings of the Combustion Institute, 2019, 37, 1997-2004.	2.4	11
57	Flame spread over twin electrical wires with applied DC electric fields. Combustion and Flame, 2019, 210, 350-359.	2.8	11
58	Plasma Technologyâ€“Preparing for the Electrified Future. Frontiers in Mechanical Engineering, 2022, 8, .	0.8	11
59	Boundary-velocity gradient and premixed flame blowoff in U-bend tubes with secondary flow. Combustion and Flame, 2003, 132, 601-609.	2.8	10
60	Measurements of Electron Energy by Emission Spectroscopy in Pulsed Corona and Dielectric Barrier Discharges. Journal of Advanced Oxidation Technologies, 2003, 6, .	0.5	10
61	Nanosecond Discharge in Bubbled Liquid n-Heptane: Effects of Gas Composition and Water Addition. IEEE Transactions on Plasma Science, 2016, 44, 2988-2994.	0.6	10
62	Synthesis of SiOC:H nanoparticles by electrical discharge in hexamethyldisilazane and water. Plasma Processes and Polymers, 2017, 14, 1700089.	1.6	10
63	Suppressing the formation of NO_x and N₂O in CO₂/N₂ dielectric barrier discharge plasma by adding CH₄: scavenger chemistry at work. Sustainable Energy and Fuels, 2019, 3, 1388-1395.	2.5	10
64	Dry reforming of methane in a temperature-controlled dielectric barrier discharge reactor: disclosure of reactant effect. Journal Physics D: Applied Physics, 2020, 53, 194002.	1.3	10
65	Electric field measurement in electric-field modified flames. Proceedings of the Combustion Institute, 2021, 38, 6651-6660.	2.4	9
66	Active Regenerative DPF Using a Plasma Assisted Burner. , 0, , .		8
67	Low-dielectric layer increases nanosecond electric discharges in distilled water. AIP Advances, 2016, 6, 105112.	0.6	8
68	Synthesis of Copper and Copper Oxide Nanomaterials by Pulsed Electric Field in Water with Various Electrical Conductivities. Nanomaterials, 2020, 10, 1347.	1.9	8
69	Correction of edge-flame propagation speed in a counterflow, annular slot burner. Combustion and Flame, 2015, 162, 4671-4672.	2.8	7
70	Selective control of reformed composition of n -heptane via plasma chemistry. Fuel, 2016, 186, 150-156.	3.4	7
71	Transformation of n-heptane using an in-liquid submerged microwave plasma jet of argon. Journal of Applied Physics, 2021, 129, .	1.1	7
72	Synthesis of Silicon and Silicon Carbide Nanoparticles by Pulsed Electrical Discharges in Dielectric Liquids. Plasma Chemistry and Plasma Processing, 2021, 41, 1647-1660.	1.1	7

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73	Vortex formation mechanism within fuel streams in laminar nonpremixed jet flames. Combustion and Flame, 2019, 199, 46-53.	2.8	6
74	Elevated pressure increases the effect of electric fields on ionic wind in methane premixed jet flames. Proceedings of the Combustion Institute, 2021, 38, 6679-6686.	2.4	5
75	Synthesis of Carbonâ€“Metal Multi-Strand Nanocomposites by Discharges in Heptane Between Two Metallic Electrodes. Plasma Chemistry and Plasma Processing, 2017, 37, 1069-1090.	1.1	4
76	A parametric study of AC electric field-induced toroidal vortex formation in laminar nonpremixed coflow flames. Combustion and Flame, 2017, 182, 142-149.	2.8	4
77	Propagation and extinction of premixed edge-flames. Proceedings of the Combustion Institute, 2019, 37, 1823-1830.	2.4	4
78	Characteristics of rotating arc for CF<SUB align=right>4 removal. International Journal of Environment and Waste Management, 2008, 2, 412.	0.2	3
79	Effect of buoyancy on dynamical responses of coflow diffusion flame under low-frequency alternating current. Combustion Science and Technology, 2018, 190, 1832-1849.	1.2	3
80	Effects of Schmidt number on non-monotonic liftoff height behavior in laminar coflow-jet flames with diluted methane and ethylene. Proceedings of the Combustion Institute, 2021, 38, 1913-1921.	2.4	3
81	On the oscillating flame characteristics in nonpremixed laminar coflow-jets: An experimental and numerical study. Proceedings of the Combustion Institute, 2021, 38, 2049-2056.	2.4	3
82	Effects of DC Electric Fields on Flickering and Acoustic Oscillations of an M-shape Premixed Flame. Flow, Turbulence and Combustion, 0, , 1.	1.4	2
83	Fundamental Study on Durability of Photocatalyst-Plasma-Honeycomb (PPH) Converter. , 2003, , .		1
84	Production of SiC Nanoparticles in Carbon Network by Pulsed Electrical Discharges in Liquid Hexamethyldisilazane with Gaseous Bubbles. Plasma Chemistry and Plasma Processing, 2022, 42, 605.	1.1	1
85	Synergetic Effects of Non-thermal Plasma and Catalysts on VOCs Decomposition. Journal of Advanced Oxidation Technologies, 2003, 6, .	0.5	0
86	Characteristics of Oscillating Flames in a Coaxial Confined Jet. International Journal of Spray and Combustion Dynamics, 2010, 2, 357-373.	0.4	0
87	Numerical and Experimental Study on Negative Buoyance Induced Vortices in N-Butane Jet Flames. , 2015, , .		0
88	Effect of DC Electric Fields on Flame Spread Over Twin Electrical Wires. , 2019, , .		0
89	Glycerol Reforming in an Aqueous Discharge Reformer. , 2020, , .		0
90	Development and Validation of a Temperature Dependent Plasmachemical Kinetics Set for H/N/O Systems. , 2020, , .		0