

# Kefeng Shang

## List of Publications by Year in descending order

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101  
papers

3,046  
citations

172207

29  
h-index

174990

52  
g-index

102  
all docs

102  
docs citations

102  
times ranked

1920  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced catalytic performance of graphene-TiO <sub>2</sub> nanocomposites for synergetic degradation of fluoroquinolone antibiotic in pulsed discharge plasma system. <i>Applied Catalysis B: Environmental</i> , 2019, 248, 552-566.	10.8	199
2	Synergetic degradation of Acid Orange 7 (AO7) dye by DBD plasma and persulfate. <i>Chemical Engineering Journal</i> , 2017, 311, 378-384.	6.6	191
3	Degradation of p-nitrophenol by DBD plasma/Fe <sup>2+</sup> /persulfate oxidation process. <i>Separation and Purification Technology</i> , 2019, 218, 106-112.	3.9	136
4	Enhanced catalytic performance of CoO -CeO <sub>2</sub> for synergetic degradation of toluene in multistage sliding plasma system through response surface methodology (RSM). <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118061.	10.8	132
5	Plasma-catalytic degradation of benzene over Ag-Ce bimetallic oxide catalysts using hybrid surface/packed-bed discharge plasmas. <i>Applied Catalysis B: Environmental</i> , 2016, 184, 355-363.	10.8	124
6	Plasma-catalytic destruction of xylene over Ag-Mn mixed oxides in a pulsed sliding discharge reactor. <i>Journal of Hazardous Materials</i> , 2019, 369, 611-620.	6.5	121
7	Hybrid electric discharge plasma technologies for water decontamination: a short review. <i>Plasma Science and Technology</i> , 2019, 21, 043001.	0.7	111
8	Degradation of antibiotic chloramphenicol in water by pulsed discharge plasma combined with TiO <sub>2</sub> /WO <sub>3</sub> composites: mechanism and degradation pathway. <i>Journal of Hazardous Materials</i> , 2019, 371, 666-676.	6.5	109
9	Degradation of sulfamethoxazole (SMX) by water falling film DBD Plasma/Persulfate: Reactive species identification and their role in SMX degradation. <i>Chemical Engineering Journal</i> , 2022, 431, 133916.	6.6	107
10	Reactive species distribution characteristics and toluene destruction in the three-electrode DBD reactor energized by different pulsed modes. <i>Chemical Engineering Journal</i> , 2018, 350, 12-19.	6.6	101
11	Pulsed discharge plasma assisted with graphene-WO <sub>3</sub> nanocomposites for synergistic degradation of antibiotic enrofloxacin in water. <i>Chemical Engineering Journal</i> , 2019, 372, 226-240.	6.6	91
12	Innovative Approach for Benzene Degradation Using Hybrid Surface/Packed-Bed Discharge Plasmas. <i>Environmental Science &amp; Technology</i> , 2013, 47, 9898-9903.	4.6	88
13	Synergetic effect of TiO <sub>2</sub> and Fe <sup>3+</sup> as co-catalysts for enhanced phenol degradation in pulsed discharge system. <i>Applied Catalysis B: Environmental</i> , 2018, 221, 521-529.	10.8	83
14	Pulsed discharge plasma induced WO <sub>3</sub> catalysis for synergetic degradation of ciprofloxacin in water: Synergetic mechanism and degradation pathway. <i>Chemosphere</i> , 2019, 230, 190-200.	4.2	76
15	Degradation of toluene by pulse-modulated multistage DBD plasma: Key parameters optimization through response surface methodology (RSM) and degradation pathway analysis. <i>Journal of Hazardous Materials</i> , 2020, 393, 122365.	6.5	71
16	Plasma-assisted catalysis decomposition of BPA over graphene-CdS nanocomposites in pulsed gas-liquid hybrid discharge: Photocorrosion inhibition and synergistic mechanism analysis. <i>Chemical Engineering Journal</i> , 2021, 412, 128627.	6.6	61
17	Effects of electrode geometry on the performance of dielectric barrier/packed-bed discharge plasmas in benzene degradation. <i>Journal of Hazardous Materials</i> , 2013, 262, 387-393.	6.5	53
18	Improved phenol decomposition and simultaneous regeneration of granular activated carbon by the addition of a titanium dioxide catalyst under a dielectric barrier discharge plasma. <i>Carbon</i> , 2013, 53, 380-390.	5.4	50

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19	Characterization of a novel volume-surface DBD reactor: discharge characteristics, ozone production and benzene degradation. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 065201.	1.3	50
20	Synergistic degradation of trans-ferulic acid by water falling film DBD plasma coupled with cobalt oxyhydroxide: Performance and mechanisms. <i>Chemical Engineering Journal</i> , 2019, 372, 321-331.	6.6	46
21	An improved corona discharge ignited by oxide cathodes with high secondary electron emission for toluene degradation. <i>Chemical Engineering Journal</i> , 2019, 362, 339-348.	6.6	46
22	Characterization of highly effective plasma-treated g-C <sub>3</sub> N <sub>4</sub> and application to the photocatalytic H <sub>2</sub> O <sub>2</sub> production. <i>Chemosphere</i> , 2020, 241, 124927.	4.2	45
23	Combined steam and CO <sub>2</sub> reforming of CH <sub>4</sub> for syngas production in a gliding arc discharge plasma. <i>Journal of CO<sub>2</sub> Utilization</i> , 2020, 37, 248-259.	3.3	45
24	Successive treatment of benzene and derived byproducts by a novel plasma catalysis-adsorption process. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105767.	3.3	40
25	Degradation of flumequine in water by pulsed discharge plasma coupled with reduced graphene oxide/TiO <sub>2</sub> nanocomposites. <i>Separation and Purification Technology</i> , 2019, 218, 206-216.	3.9	39
26	Performance evaluation of non-thermal plasma injection for elemental mercury oxidation in a simulated flue gas. <i>Journal of Hazardous Materials</i> , 2014, 268, 237-245.	6.5	38
27	Degradation of benzene by bipolar pulsed series surface/packed-bed discharge reactor over MnO <sub>2</sub> /TiO <sub>2</sub> /zeolite catalyst. <i>Chemical Engineering Journal</i> , 2016, 293, 216-224.	6.6	38
28	Post Plasma-Catalysis of Low Concentration VOC Over Alumina-Supported Silver Catalysts in a Surface/Packed-Bed Hybrid Discharge Reactor. <i>Water, Air, and Soil Pollution</i> , 2017, 228, 1.	1.1	35
29	CO <sub>2</sub> conversion promoted by potassium intercalated g-C <sub>3</sub> N <sub>4</sub> catalyst in DBD plasma system. <i>Chemical Engineering Journal</i> , 2021, 417, 129283.	6.6	31
30	Non-Thermal Plasma-Assisted Catalytic Dry Reforming of Methane and Carbon Dioxide Over G-C <sub>3</sub> N <sub>4</sub> -Based Catalyst. <i>Topics in Catalysis</i> , 2017, 60, 855-868.	1.3	30
31	CO <sub>2</sub> conversion in non-thermal plasma and plasma/g-C <sub>3</sub> N <sub>4</sub> catalyst hybrid processes. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 094001.	1.3	28
32	Experimental and numerical studies of primary and secondary streamers in a pulsed surface dielectric barrier discharge. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 325202.	1.3	26
33	Dry reforming of CO <sub>2</sub> /CH <sub>4</sub> assisted by high-frequency AC gliding arc discharge: Electrical characteristics and the effects of different parameters. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 22776-22785.	3.8	25
34	Dry reforming of CH <sub>4</sub> /CO <sub>2</sub> in AC rotating gliding arc discharge: Effect of electrode structure and gas parameters. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 13098-13109.	3.8	25
35	The post plasma-catalytic decomposition of toluene over K-modified OMS-2 catalysts at ambient temperature: Effect of K <sup>+</sup> loading amount and reaction mechanism. <i>Journal of Colloid and Interface Science</i> , 2021, 598, 519-529.	5.0	25
36	Oxidation characteristics of mixed NO and Hg <sub>0</sub> in coal-fired flue gas using active species injection generated by surface discharge plasma. <i>Chemical Engineering Journal</i> , 2016, 288, 298-304.	6.6	24

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37	Evolution of three-electrode pulsed surface dielectric barrier discharge: primary streamer, transitional streamer and secondary reverse streamer. <i>Plasma Sources Science and Technology</i> , 2020, 29, 035018.	1.3	23
38	Evaluating the generation efficiency of hydrogen peroxide in water by pulsed discharge over water surface and underwater bubbling pulsed discharge. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 01AB02.	0.8	21
39	Discharge and optical characterizations of nanosecond pulse sliding dielectric barrier discharge plasma for volatile organic compound degradation. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 155206.	1.3	21
40	Dielectric barrier discharge plasma assisted CO <sub>2</sub> conversion: understanding the effects of reactor design and operating parameters. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 224003.	1.3	20
41	Generation Characteristics of Long-Lived Active Species in a Water Falling Film DBD Reactor. <i>Plasma Chemistry and Plasma Processing</i> , 2021, 41, 477-491.	1.1	20
42	Improved Performance for Toluene Abatement in a Continuous-Flow Pulsed Sliding Discharge Reactor Based on Three-Electrode Configuration. <i>Plasma Chemistry and Plasma Processing</i> , 2019, 39, 227-240.	1.1	18
43	Activation of peroxydisulfate by gas-liquid pulsed discharge plasma to enhance the degradation of p-nitrophenol. <i>Plasma Science and Technology</i> , 2017, 19, 064017.	0.7	17
44	Diagnostics of Plasma Behavior and TiO <sub>2</sub> Properties Based on DBD/TiO <sub>2</sub> Hybrid System. <i>Plasma Chemistry and Plasma Processing</i> , 2018, 38, 1239-1258.	1.1	17
45	Degradation of trans-ferulic acid in aqueous solution by a water falling film DBD reactor: Degradation performance, response surface methodology, reactive species analysis and toxicity evaluation. <i>Separation and Purification Technology</i> , 2020, 235, 116226.	3.9	17
46	Enhanced biodegradability of coking wastewater by gas phase dielectric barrier discharge plasma. <i>Separation and Purification Technology</i> , 2015, 154, 359-365.	3.9	16
47	Electrical Characteristics of Pulsed Corona Discharge Plasmas in Chitosan Solution. <i>Plasma Science and Technology</i> , 2014, 16, 128-133.	0.7	15
48	Effect of Persulfate on the Degradation of Acid Orange 7 (AO7) by Dielectric Barrier Discharge Plasma. <i>Topics in Catalysis</i> , 2017, 60, 973-979.	1.3	13
49	Enhancement of NO <sub>x</sub> abatement by advancing initiation of C <sub>3</sub> H <sub>6</sub> oxidation chemistry with a corona radical shower. <i>Plasma Sources Science and Technology</i> , 2007, 16, 104-109.	1.3	12
50	Abatement of mixed volatile organic compounds in a catalytic hybrid surface/packed-bed discharge plasma reactor. <i>Frontiers of Environmental Science and Engineering</i> , 2018, 12, 1.	3.3	12
51	Classification and uniformity optimization of mesh-plate DBD and its application in polypropylene modification. <i>Plasma Science and Technology</i> , 2019, 21, 054006.	0.7	12
52	Promoting streamer propagation, active species generation and trichloroethylene degradation using a three-electrode nanosecond pulsed sliding DBD nanosecond plasma. <i>Journal of Cleaner Production</i> , 2022, 332, 129998.	4.6	12
53	Discharge Characteristics of Series Surface/Packed-Bed Discharge Reactor Driven by Bipolar Pulsed Power. <i>Plasma Science and Technology</i> , 2016, 18, 254-258.	0.7	11
54	Physical and chemical properties of a magnetic-assisted DC superimposed nanosecond-pulsed streamer discharge plasma. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 245203.	1.3	11

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55	Combination of pulsed corona discharge plasma and gamma-Al <sub>2</sub> O <sub>3</sub> -supported catalysts for polycyclic aromatic hydrocarbon removal in soil. Separation and Purification Technology, 2015, 156, 766-771.	3.9	10
56	Evaluation of trans-ferulic acid degradation by dielectric barrier discharge plasma combined with ozone in wastewater with different water quality conditions. Plasma Science and Technology, 2019, 21, 025501.	0.7	10
57	Electrical Characteristics of Pulsed-Discharge Plasma for Decoloration of Dyes in Water. IEEE Transactions on Plasma Science, 2015, 43, 580-586.	0.6	9
58	Enhanced Degradation of Benzene in Surface/Packed-Bed Hybrid Discharge System: Optimization of the Reactor Structure and Electrical Parameters. IEEE Transactions on Plasma Science, 2016, 44, 657-664.	0.6	9
59	Evaluation of discharge uniformity and area in surface dielectric barrier discharge at atmospheric pressure. Vacuum, 2016, 123, 49-53.	1.6	9
60	Synergistic degradation of trans-ferulic acid in aqueous solution by dielectric barrier discharge plasma combined with ozone. Environmental Science and Pollution Research, 2018, 25, 35479-35491.	2.7	9
61	Diagnosis of electron temperature in Ar/O <sub>2</sub> mixed gas and destruction of toluene/benzene by positive dc discharge plasma. Journal of Electrostatics, 2009, 67, 746-750.	1.0	8
62	Low temperature air plasma jet generated by syringe needle-ring electrodes dielectric barrier discharge at atmospheric pressure. Thin Solid Films, 2013, 548, 470-474.	0.8	8
63	Electrical and Spectral Characteristics of a Low-Temperature Argon-Oxygen Plasma Jet With Syringe Needle-Ring Electrodes. IEEE Transactions on Plasma Science, 2013, 41, 545-552.	0.6	8
64	Study on the factors influencing phenol degradation in water by dielectric barrier discharge (DBD). Journal of Physics: Conference Series, 2013, 418, 012129.	0.3	8
65	Ice-breaking by three-electrode pulsed surface dielectric barrier discharge: breakdown mode transition. Journal Physics D: Applied Physics, 2019, 52, 50LT01.	1.3	8
66	Detection of hydroxyl radicals during regeneration of granular activated carbon in dielectric barrier discharge plasma system. Journal of Physics: Conference Series, 2013, 418, 012104.	0.3	7
67	Characteristics of three-electrode pulsed surface dielectric barrier discharge: streamer-to-spark transition and hydrodynamic expansion. Journal Physics D: Applied Physics, 2022, 55, 265202.	1.3	7
68	Ozonation of p-Nitrophenol Adsorbed on Activated Carbon Fiber (ACF) and the Change of Textural and Chemical Characteristics of ACF. Ozone: Science and Engineering, 2015, 37, 178-185.	1.4	6
69	A comparative study on the activity of TiO <sub>2</sub> in pulsed plasma under different discharge conditions. Plasma Science and Technology, 2018, 20, 054009.	0.7	6
70	Evaluation on a double-chamber gas-liquid phase discharge reactor for benzene degradation. Plasma Science and Technology, 2019, 21, 075502.	0.7	6
71	Trichel Pulse Characteristics in Negative dc Corona Discharge. , 2011, , .		5
72	Oxidation efficiency of elemental mercury in two DBD plasma reactors. Journal of Physics: Conference Series, 2013, 418, 012118.	0.3	5

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73	Degradation of methyl orange waste water by electrochemical oxidation method. Journal of Physics: Conference Series, 2013, 418, 012134.	0.3	5
74	Influence of power supply on the generation of ozone and degradation of phenol in a surface discharge reactor. Journal of Physics: Conference Series, 2013, 418, 012131.	0.3	5
75	Diagnosis of Electronic Excitation Temperature in Surface Dielectric Barrier Discharge Plasmas at Atmospheric Pressure. Plasma Science and Technology, 2014, 16, 123-127.	0.7	5
76	Characteristics of a corona discharge ignited by a MgO/NiO/Ni sandwich cathode with high secondary electron emission for VOC degradation. Journal Physics D: Applied Physics, 2018, 51, 435201.	1.3	5
77	Effect of megapore particles packing on dielectric barrier discharge, O <sub>3</sub> generation and benzene degradation. Plasma Science and Technology, 2022, 24, 015501.	0.7	5
78	Degradation of toluene by tube-tube coaxial dielectric barrier discharge: power characteristics and power factor optimization. Environmental Technology (United Kingdom), 2023, 44, 897-910.	1.2	5
79	Streamer dynamics and charge self-erasing of two counter-propagating plasmas in repetitively pulsed surface dielectric barrier discharge. High Voltage, 2022, 7, 730-743.	2.7	5
80	p-Nitrophenol contaminated soil remediation in a spray-type coaxial cylindrical dielectric barrier discharge plasma system. Environmental Science and Pollution Research, 2022, 29, 58110-58120.	2.7	5
81	Oxidation of ammonium sulfite by a multi-needle-to-plate gas phase pulsed corona discharge reactor. Journal of Physics: Conference Series, 2013, 418, 012128.	0.3	4
82	Oxidation of ammonium sulfite in aqueous solutions using ozone technology. Journal of Physics: Conference Series, 2013, 418, 012130.	0.3	4
83	Performance of Dielectric Barrier Discharge Reactors on Elemental Mercury Oxidation in the Coal-Fired Flue Gas. Plasma Science and Technology, 2014, 16, 155-160.	0.7	4
84	DC discharge with high secondary electron emission oxide cathode: Effects of gas pressure and oxide cathode structure. Vacuum, 2019, 166, 114-122.	1.6	4
85	Evaluation of matching between a pulsed-power and corona discharge reactor containing different thickness of soil. Journal of Physics: Conference Series, 2013, 418, 012136.	0.3	3
86	Evaluation of Energy-Conversion Efficiency of Multineedle-to-Plate Corona-DBD Plasma for Organic Degradation in Soil. IEEE Transactions on Plasma Science, 2016, , 1-8.	0.6	3
87	Promoting volatile organic compounds removal by a magnetically assisted nanosecond pulsed gear-cylinder dielectric barrier discharge. Plasma Processes and Polymers, 2022, 19, .	1.6	3
88	Effect of Electrode Configuration and Corona Polarity on NO Removal by Pulse Corona Plasma. , 2010, , .		2
89	Optimization of discharge types and electrode structure in a cylinder discharge reactor with saw-wheel array electrodes. Journal of Physics: Conference Series, 2013, 418, 012098.	0.3	2
90	Morphological Image Analysis of Surface Dielectric Barrier Discharge at Atmospheric Air. IEEE Transactions on Plasma Science, 2017, 45, 2988-2993.	0.6	2

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91	Investigation of toluene removal by DC discharge with MgO/NiO/Ni cathode under different operating parameters. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 085201.	1.3	2
92	Characteristic studies on positive and negative streamers of double-sided pulsed surface dielectric barrier discharge. <i>Plasma Science and Technology</i> , 2022, 24, 044005.	0.7	2
93	Simultaneous Removal of SO <sub>2</sub> /NO <sub>x</sub> by Corona Discharge Plasma. , 2009, , .		1
94	Abatement of NO <sub>x</sub> with Propene Activated by Corona Plasmas. , 2009, , .		1
95	The structure optimization of gas-phase surface discharge and its application for dye degradation. <i>Plasma Science and Technology</i> , 2018, 20, 054018.	0.7	1
96	Experimental and simulated investigation of microdischarge characteristics in a pin-to-pin dielectric barrier discharge (DBD) reactor. <i>Plasma Science and Technology</i> , 2022, 24, 105402.	0.7	1
97	Destruction of Toluene by dc Corona Discharge Reactor with Ultra-Thin Razor-to-Plate Type Electrode. , 2009, , .		0
98	Study on Selection and Training of the Strains High-Effectively Degrading PCBs. <i>International Conference on Bioinformatics and Biomedical Engineering: [proceedings] International Conference on Bioinformatics and Biomedical Engineering</i> , 2010, , .	0.0	0
99	Degradation of Phenol in Water with Suspended TiO <sub>2</sub> by Pulsed Streamer Discharge. <i>International Conference on Bioinformatics and Biomedical Engineering: [proceedings] International Conference on Bioinformatics and Biomedical Engineering</i> , 2010, , .	0.0	0
100	Streamer inhibition characteristics of surface dielectric barrier discharge in different electrode configurations. , 2015, , .		0
101	Plasma-catalytic destruction of benzene in a hybrid surface/packed-bed discharge over Ag<sup>0</sup>/x<sup>0</sup>/inf>CE<sup>0</sup>/inf>1&#x2212;x<sup>0</sup>/inf>/&#x03B3;-AL<sup>0</sup>/inf>2<sup>0</sup>/inf>O<sup>0</sup>/inf>3<sup>0</sup>/inf>/inf> catalyst. , 2015, , .		