Cheng Zhang

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

70 papers	1,314 citations	19 h-index	33 g-index
92 ext. papers	1,617 ext. citations	2.1 avg, IF	4.54 L-index

#	Paper	IF	Citations
70	Atmospheric-pressure pulsed discharges and plasmas: mechanism, characteristics and applications. *High Voltage*, **2018**, 3, 14-20	4.1	143
69	Diffuse discharge, runaway electron, and x-ray in atmospheric pressure air in an inhomogeneous electrical field in repetitive pulsed modes. *Applied Physics Letters*, **2011**, 98, 021503	3.4	99
68	A Compact Repetitive Unipolar Nanosecond-Pulse Generator for Dielectric Barrier Discharge Application. *IEEE Transactions on Plasma Science*, **2010**, 38, 1651-1655	1.3	87
67	Diffuse discharge produced by repetitive nanosecond pulses in open air, nitrogen, and helium. *Journal of Applied Physics*, **2013**, 113, 093301	2.5	61
66	Surface Treatment of Polyethylene Terephthalate to Improving Hydrophilicity Using Atmospheric Pressure Plasma Jet. *IEEE Transactions on Plasma Science*, **2013**, 41, 1627-1634	1.3	58
65	Surface Treatment of Polyethylene Terephthalate Films Using DBD Excited by Repetitive Unipolar Nanosecond Pulses in Air at Atmospheric Pressure. *IEEE Transactions on Plasma Science*, **2010**, 38, 1517-1526	1.3	50
64	Comparison of Atmospheric-Pressure He and Ar Plasma Jets Driven by Microsecond Pulses. *IEEE Transactions on Plasma Science*, **2015**, 43, 726-732	1.3	48
63	Hydrophobic surface modification of epoxy resin using an atmospheric pressure plasma jet array. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2016**, 23, 2288-2293	2.3	44
62	Uniformity optimization and dynamic studies of plasma jet array interaction in argon. *Physics of Plasmas*, **2017**, 24, 093507	2.1	42
61	Spark discharge formation in an inhomogeneous electric field under conditions of runaway electron generation. *Journal of Applied Physics*, **2012**, 111, 023304	2.5	39
60	Runaway electron preionized diffuse discharges in atmospheric pressure air with a point-to-plane gap in repetitive pulsed mode. *Journal of Applied Physics*, **2011**, 109, 083306	2.5	34
59	Repetitive nanosecond-pulse discharge in a highly nonuniform electric field in atmospheric air: X-ray emission and runaway electron generation. *Laser and Particle Beams*, **2012**, 30, 369-378	0.9	33
58	Effect of cathode materials on the generation of runaway electron beams and X-rays in atmospheric pressure air. *Laser and Particle Beams*, **2013**, 31, 353-364	0.9	29
57	A Gliding Discharge in Open Air Sustained by High-Voltage Resonant AC Power Supply. *IEEE Transactions on Plasma Science*, **2012**, 40, 2843-2849	1.3	26
56	Comparison of AC and Nanosecond-Pulsed DBDs in Atmospheric Air. *IEEE Transactions on Plasma Science*, **2011**, 39, 2076-2077	1.3	25
55	A Comparative Study of Water Electrodes Versus Metal Electrodes for Excitation of Nanosecond-Pulse Homogeneous Dielectric Barrier Discharge in Open Air. *IEEE Transactions on Plasma Science*, **2013**, 41, 3069-3078	1.3	24
54	Dynamics of Plasma Bullets in a Microsecond-Pulse-Driven Atmospheric-Pressure He Plasma Jet. *IEEE Transactions on Plasma Science*, **2016**, 44, 393-397	1.3	23

53	Generation of super-short avalanche electron beams in SF6. *Laser and Particle Beams*, **2014**, 32, 331-341	0.9	20
52	Detection of x-ray emission in a nanosecond discharge in air at atmospheric pressure. *Review of Scientific Instruments*, **2010**, 81, 123501	1.7	20
51	Nano-BN encapsulated micro-AlN as fillers for epoxy composites with high thermal conductivity and sufficient dielectric breakdown strength. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2020**, 27, 528-534	2.3	18
50	Characteristics of microsecond-pulse surface flashover on epoxy resin surfaces in SF6. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2016**, 23, 2328-2336	2.3	18
49	A Compact Microsecond-Pulse Generator Used for Surface Dielectric Barrier Discharges. *IEEE Transactions on Plasma Science*, **2016**, 44, 2072-2078	1.3	18
48	Thin insulating film deposition on copper by atmospheric-pressure plasmas. *Plasma Processes and Polymers*, **2017**, 14, 1600248	3.4	17
47	Atmospheric-Pressure Plasma Jet Produced by a Unipolar Nanosecond Pulse Generator in Various Gases. *IEEE Transactions on Plasma Science*, **2011**, 39, 2322-2323	1.3	17
46	Aging characteristics of epoxy resin discharged by very fast transient overvoltage in SF6. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2017**, 24, 1178-1188	2.3	16
45	Spatial□Temporal Evolution of a Radial Plasma Jet Array and Its Interaction with Material. *Plasma Chemistry and Plasma Processing*, **2019**, 39, 187-203	3.6	16
44	Influence of Oxygen Content on Argon/Oxygen Dielectric Barrier Discharge Plasma Treatment of Polyethylene Terephthalate Film. *IEEE Transactions on Plasma Science*, **2017**, 45, 310-317	1.3	15
43	Discharge processes and an electrical model of atmospheric pressure plasma jets in argon. *European Physical Journal D*, **2016**, 70, 1	1.3	14
42	Electrical and optical characteristics of surface plasma actuator based on a three-electrode geometry excited by nanosecond-pulse and DC sources. *Physics of Plasmas*, **2017**, 24, 123503	2.1	14
41	X-ray emission from a nanosecond-pulse discharge in an inhomogeneous electric field at atmospheric pressure. *Physics of Plasmas*, **2012**, 19, 123516	2.1	13
40	The mechanism of Naringin-enhanced remyelination after spinal cord injury. *Neural Regeneration Research*, **2017**, 12, 470-477	4.5	13
39	Supershort avalanche electron beam in SF6 and krypton. *Physical Review Accelerators and Beams*, **2016**, 19,	1.8	13
38	A bioelectrical impedance phase angle measuring system for assessment of nutritional status. *Bio-Medical Materials and Engineering*, **2014**, 24, 3657-64	1	11
37	Oscillating field stimulation promotes spinal cord remyelination by inducing differentiation of oligodendrocyte precursor cells after spinal cord injury. *Bio-Medical Materials and Engineering*, **2014** , 24, 3629-36	1	11
36	X-ray and runaway electron generation in repetitive pulsed discharges in atmospheric pressure air with a point-to-plane gap. *Physics of Plasmas*, **2011**, 18, 053502	2.1	11

35	Spacer flashover characteristics in SF6 under repetitive nanosecond pulses. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2013**, 20, 1161-1167	2.3	10
34	Simulation of runaway electron inception and breakdown in nanosecond pulse gas discharges. *Laser and Particle Beams*, **2016**, 34, 43-52	0.9	10
33	Influences of oxygen content on characteristics of atmospheric pressure dielectric barrier discharge in argon/oxygen mixtures. *European Physical Journal D*, **2016**, 70, 1	1.3	10
32	A critical review on ozone and co-species, generation and reaction mechanisms in plasma induced by dielectric barrier discharge technologies for wastewater remediation. *Journal of Environmental Chemical Engineering*, **2021**, 9, 105758	6.8	10
31	Influence of electrode spacing and gas pressure on parameters of a runaway electron beam generating during the nanosecond breakdown in SF6 and nitrogen. *High Voltage*, **2017**, 2, 49-55	4.1	9
30	Factors influencing the discharge mode for microsecond-pulse gliding discharges at atmospheric pressure. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2017**, 24, 2148-2156	2.3	8
29	A pulsed generator for synchronous discharges of high-energy plasma synthetic jet actuators. *IEEE Transactions on Dielectrics and Electrical Insulation*, **2017**, 24, 2076-2084	2.3	8
28	Generation of Homogeneous Atmospheric-Pressure Dielectric Barrier Discharge in a Large-Gap Argon Gas. *IEEE Transactions on Plasma Science*, **2012**, 40, 1884-1890	1.3	8
27	Experimental Study on Sound Characteristics Produced by DC Corona and Pulsed Discharges. *IEEE Transactions on Plasma Science*, **2016**, 44, 2196-2203	1.3	7
26	Poly(vinylidene fluoride)/Plasma-Treated BaTiO3 Nanocomposites with Enhanced Electroactive Phase. *Macromolecular Research*, **2018**, 26, 965-972	1.9	7
25	X-ray radiation and runaway electron beams generated during discharges in atmospheric-pressure air at rise times of voltage pulse of 500 and 50 ns. *Laser and Particle Beams*, **2018**, 36, 186-194	0.9	7
24	Effect of DSPE-PEG on compound action potential, injury potential and ion concentration following compression in ex vivo spinal cord. *Neuroscience Letters*, **2016**, 620, 50-6	3.3	6
23	Extremely low-frequency magnetic exposure appears to have no effect on pathogenesis of Alzheimer‡s disease in aluminum-overloaded rat. *PLoS ONE*, **2013**, 8, e71087	3.7	6
22	Early electrical field stimulation prevents the loss of spinal cord anterior horn motoneurons and muscle atrophy following spinal cord injury. *Neural Regeneration Research*, **2018**, 13, 869-876	4.5	6
21	Focused Plasma- and Pure Water-Enabled, Electrode-Emerged Nanointerfaced NiCo Hydroxide-Oxide for Robust Overall Water Splitting. *ACS Applied Materials & Interfaces*, **2021**, 13, 45566-45577	9.5	6
20	Comparison of $mu $ s- and ns-Pulse Gliding Discharges in Air Flow. *IEEE Transactions on Plasma Science*, **2014**, 42, 2354-2355	1.3	5
19	Diffuse Discharges in Open Air Sustained by Microsecond and Nanosecond Pulses. *IEEE Transactions on Plasma Science*, **2014**, 42, 2408-2409	1.3	5
18	Review of supershort avalanche electron beam during nanosecond-pulse discharges in some gases. *Matter and Radiation at Extremes*, **2017**, 2, 105-116	4.7	5

17	Modification of copper surface by runaway electrons preionized diffuse discharges at atmospheric pressure. *Laser and Particle Beams*, **2016**, 34, 202-209	0.9	5
16	Plasma jet printing for preparation of N-doped graphene electrode. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 8944-8954	2.1	4
15	Surface modification of polymers by a nanosecond-pulse plasma jet **2012**,		4
14	Electrical stimulation modulates injury potentials in rats after spinal cord injury. *Neural Regeneration Research*, **2013**, 8, 2531-9	4.5	4
13	Persistent moderate to severe pain and long-term cognitive decline. *European Journal of Pain*, **2021** , 25, 2065-2074	3.7	3
12	Optical and illuminant characteristics of microsecond-pulse diffuse discharges in a point-to-point gap **2016**,		2
11	Coaxial Diffuse Discharges Driven by Repetitive Nanosecond Pulses at Different Air Pressures. *IEEE Transactions on Plasma Science*, **2014**, 42, 2378-2379	1.3	2
10	A repetitive microsecond-pulse generator for plasma application **2012**,		2
9	Measurement of runaway electron beam current in nanosecond-pulse discharges by a Faraday cup. *Laser and Particle Beams*, **2018**, 36, 369-375	0.9	2
8	Surface modification of LDPE film by nanosecond-pulse dielectric barrier discharge at atmospheric pressure **2015**,		1
7	Effect of Dielectric Barrier Discharge (DBD) Treatment on the Dielectric Properties of Poly(vinylidene fluoride)(PVDF)-Based Copolymer. *Polymers*, **2020**, 12,	4.5	1
6	Simulation of injury potential compensation by direct current stimulation in rat spinal cord. *Bio-Medical Materials and Engineering*, **2014**, 24, 3693-700	1	1
5	A microsecond generator based on pulse transformer and its discharge applications **2014**,		1
4	Study on Q-V Lissajous figures in nanosecond-pulsed surface discharge **2012**,		1
3	Repetitive nanosecond-pulse discharge in tip-grid gaps in atmospheric air **2010**,		1
2	Effects of the combination therapy of electric field stimulation and polyethylene glycol in the ex vivo spinal cord of female rats after compression. *Journal of Neuroscience Research*, **2021**, 99, 1850-1863	4.4	1
1	Preparation and Properties of Polystyrene Deposited with TiN Film Using Atmospheric-Pressure Plasma Jet **2019**,		1