An-Bang Sun

List of Publications by Year
in descending order

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55 papers	716 citations	623734 14 h-index	610901 24 g-index
56 all docs	56 docs citations	56 times ranked	568 citing authors

#	Article	IF	Citations
1	Formation mechanism of streamer discharges in liquids: a review. High Voltage, 2016, 1, 74-80.	4.7	86
2	PIC/MCC simulation of capacitively coupled discharges: Effect of particle management and integration. Computer Physics Communications, 2016, 206, 35-44.	7.5	52
3	Asymptotic-Preserving Particle-In-Cell method for the Vlasovâ€“Poisson system near quasineutrality. Journal of Computational Physics, 2010, 229, 5630-5652.	3.8	49
4	Nonlinear ion-acoustic structures in a nonextensive electronâ€“positronâ€“ionâ€“dust plasma: Modulational instability and rogue waves. Annals of Physics, 2012, 332, 38-55.	2.8	48
5	A computational study of positive streamers interacting with dielectrics. Plasma Sources Science and Technology, 2020, 29, 065004.	3.1	35
6	A time scale for electrical screening in pulsed gas discharges. Journal Physics D: Applied Physics, 2014, 47, 365203.	2.8	30
7	The inception of pulsed discharges in air: simulations in background fields above and below breakdown. Journal Physics D: Applied Physics, 2014, 47, 445205.	2.8	27
8	A computational study of negative surface discharges: Characteristics of surface streamers and surface charges. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 1178-1186.	2.9	26
9	Comparing simulations and experiments of positive streamers in air: steps toward model validation. Plasma Sources Science and Technology, 2021, 30, 095002.	3.1	23
10	Review on development of carbon nanotube field emission cathode for space propulsion systems. High Voltage, 2020, 5, 409-415.	4.7	20
11	Confluence or independence of microwave plasma bullets in atmospheric argon plasma jet plumes. Journal of Applied Physics, 2018, 123, .	2.5	17
12	On the role of secondary electron emission in capacitively coupled radioâ€frequency plasma sheath: A theoretical ground. Plasma Processes and Polymers, 2019, 16, 1900093.	3.0	16
13	Integrated modeling of plasma-dielectric interaction: kinetic boundary effects. Plasma Sources Science and Technology, 2019, 28, 055001.	3.1	16
14	Particle simulation of grid system for krypton ion thrusters. Chinese Journal of Aeronautics, 2018, 31, 719-726.	5.3	15
15	PIC/MCC simulation of capacitively coupled discharges in helium: boundary effects. Plasma Sources Science and Technology, 2018, 27, 054002.	3.1	15
16	3-D Particle Modeling of Positive Streamer Inception From a Needle Electrode in Supercritical Nitrogen. IEEE Transactions on Plasma Science, 2014, 42, 2416-2417.	1.3	14
17	A 3D numerical study of positive streamers interacting with localized plasma regions. Journal Physics D: Applied Physics, 2020, 53, 425204.	2.8	14
18	A computational study of steady and stagnating positive streamers in N₂â€“O₂ mixtures. Plasma Sources Science and Technology, 2022, 31, 065011.	3.1	14

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19	Analysis of Numerical Simulation Results of LIPS-200 Lifetime Experiments. Plasma Science and Technology, 2016, 18, 611-616.	1.5	13
20	Intense boundary emission destroys normal radio-frequency plasma sheath. Physical Review E, 2020, 101, 033203.	2.1	12
21	A comparison of particle and fluid models for positive streamer discharges in air. Plasma Sources Science and Technology, 2022, 31, 015012.	3.1	12
22	Integrated static and dynamic modeling of an ionic polymerâ€“metal composite actuator. Journal of Intelligent Material Systems and Structures, 2015, 26, 1164-1178.	2.5	11
23	Transition from glow-like to streamer-like discharge in atmospheric pressure dielectric barrier discharge controlled by variable dielectric surface layer permittivity. Physics of Plasmas, 2019, 26, .	1.9	11
24	Issues in the numerical modelling of positive ion extraction. Computer Physics Communications, 2021, 259, 107629.	7.5	9
25	Streamerâ€toâ€precursor transition in N ₂ â€“SF ₆ mixtures under positive repetitive submicrosecond pulses. High Voltage, 2022, 7, 382-389.	4.7	9
26	Experimental study on pulse characteristics of negative corona discharge in SF6/N2 gas mixtures under DC voltages. AIP Advances, 2020, 10, .	1.3	9
27	Characteristics of atmospheric Ar/NH₃ DBD and its comparison with He/N₂ DBD. Journal Physics D: Applied Physics, 2018, 51, 225201.	2.8	8
28	Effect of trace SF6 on negative corona characteristics in SF6/N2 gas mixtures under DC voltages. AIP Advances, 2020, 10, .	1.3	8
29	The pulsed mode of negative DC corona in nitrogen at atmosphere pressure: Comparison with Trichel pulses in air. Physics of Plasmas, 2020, 27, .	1.9	8
30	Experimental study on the discharge ignition in a capillary discharge based pulsed plasma thruster. Physics of Plasmas, 2018, 25, 093512.	1.9	7
31	Development and analysis of a novel printed circuit board electrostatic comb system for micro-newton thrust stand calibration. Review of Scientific Instruments, 2018, 89, 075104.	1.3	7
32	Unveiling the role of dielectric trap states on capacitively coupled radio-frequency plasma discharge: dynamic charging behaviors. Plasma Sources Science and Technology, 2021, 30, 055007.	3.1	7
33	Effect of transverse airflow on the deflection of negative corona discharge on the Trichel pulse mode at atmospheric pressure. AIP Advances, 2021, 11, .	1.3	7
34	Effect of Gas-Mixture Ratio on the Characteristics of Positive DC Corona Discharge in SF₆/N₂ Gas Mixtures. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 829-837.	2.9	6
35	3D particleâ€inâ€cell simulation of positive streamer initiation in highly pressurized gaseous, liquid and supercritical CO ₂ with field ionization. High Voltage, 2021, 6, 16-24.	4.7	6
36	Numerical and theoretical modeling of the sheath upstream of ion optics: sheath structure transition and its effect on the beam divergence. Plasma Sources Science and Technology, 2021, 30, 075019.	3.1	5

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37	Plasma plume evolution of a capillary discharge based pulsed plasma thruster: An optical diagnosis study. Physics of Plasmas, 2021, 28, .	1.9	5
38	Structural characteristics of the upstream sheath of the ion optics and its application in evaluating the beam performance of an ion thruster. Journal of Applied Physics, 2022, 131, .	2.5	5
39	Numerical Study on the Effect of Electric Field Non-uniformity on the Pulse Characteristics of Positive Corona Discharge in SF₆/N₂ Gas Mixtures. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1949-1956.	2.9	5
40	On the electron sheath theory and its applications in plasmaâ€“surface interactions. Plasma Science and Technology, 2022, 24, 095401.	1.5	5
41	Three-dimensional fluid simulations of the Cs plasma release in the ionosphere. AIP Advances, 2019, 9, 015117.	1.3	4
42	Review on ionization and quenching mechanisms of Trichel pulse*. Chinese Physics B, 2021, 30, 055207.	1.4	4
43	Investigation of a novel ring-cusp magnetically confined plasma bridge neutralizer. Review of Scientific Instruments, 2022, 93, 034501.	1.3	4
44	On the Ohmic-dominant heating mode of capacitively coupled plasma inverted by boundary electron emission. Applied Physics Letters, 2022, 121, .	3.3	4
45	Effects of a negative corona discharge on subsequent positive streamers. Journal Physics D: Applied Physics, 2021, 54, 485202.	2.8	3
46	3D Particle-in-Cell Simulation of Positive Needle-to-Plane Streamer Discharge in SF6 with Field Ionization. , 2019, , .		2
47	On the pulsedâ€“pulseless mode transition of negative DC corona in atmospheric nitrogen. Physics of Plasmas, 2021, 28, 063505.	1.9	2
48	Inside Cover Picture: Plasma Process. Polym. 11/2019. Plasma Processes and Polymers, 2019, 16, 1970024.	3.0	1
49	Experimental Study on Corona Discharge Characteristics of SF6/N2 Gas Mixture in Needle-plane Model. , 2019, , .		0
50	Computational study on the aerodynamics of a long-shrouded contra-rotating rotor in hover. International Journal of Micro Air Vehicles, 2019, 11, 175682931983368.	1.3	0
51	Two methods of simulating corona current pulses in SF6 under negative DC voltage. , 2021, , .		0
52	Fractal analysis of positive streamer branching produced with field ionization in gaseous, liquid, and supercritical CO2. , 2021, , .		0
53	Pulse-By-Pulse Streamer-To-Leader Transition In N2-SF6 Mixtures Under Repetitive Sub-Microsecond Pulses. , 2021, , .		0
54	1d3v PIC/MCC simulation of dielectric barrier discharge dynamics in hydrogen sulfide. Plasma Science and Technology, 2022, 24, 025401.	1.5	0

#	Article	IF	Citations
55	Effect of Epoxy Resin Spacers on Corona Characteristics in SF6/N2 Mixtures under Positive DC Voltages. , 2020, , .		0