

# Chengxun

## List of Publications by Year in descending order

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115  
papers

798  
citations

567281

15  
h-index

713466

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g-index

119  
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119  
docs citations

119  
times ranked

456  
citing authors

#	ARTICLE	IF	CITATIONS
1	Propagation of broadband terahertz pulses through a dense-magnetized-collisional-bounded plasma layer. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	40
2	1D kinetic simulations of a short glow discharge in helium. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	29
3	Propagation of electromagnetic waves in a weakly ionized dusty plasma. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 465201.	2.8	28
4	Propagation properties of broadband terahertz pulses through a bounded magnetized thermal plasma. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2011, 269, 23-29.	1.4	27
5	Propagation of electromagnetic waves in a weak collisional and fully ionized dusty plasma. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	27
6	Propagation of Gaussian laser beam in cold plasma of Drude model. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	24
7	Determining the spectrum of penning electrons by current to a wall probe in nonlocal negative glow plasma. <i>Physics of Plasmas</i> , 2018, 25, 104501.	1.9	23
8	Self-focusing and defocusing of Gaussian laser beams in plasmas with linear temperature ramp. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	22
9	Novel dynamic tuning of broadband visible metamaterial perfect absorber using graphene. <i>Journal of Applied Physics</i> , 2016, 120, .	2.5	20
10	Numerical and Experimental Diagnostics of Dusty Plasma in a Coaxial Gridded Hollow Cathode Discharge. <i>IEEE Transactions on Plasma Science</i> , 2016, 44, 2973-2978.	1.3	19
11	Propagation of terahertz waves in an atmospheric pressure microplasma with Epstein electron density profile. <i>Journal of Applied Physics</i> , 2011, 109, 063305.	2.5	18
12	Propagation of electromagnetic wave in dusty plasma and the influence of dust size distribution. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	16
13	Soliton switching in inhomogeneous nonlocal media. <i>Optik</i> , 2014, 125, 1075-1078.	2.9	15
14	Ambipolar field role in formation of electron distribution function in gas discharge plasma. <i>Scientific Reports</i> , 2017, 7, 14613.	3.3	15
15	Influence of dust particles on positive column of DC glow discharge. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	15
16	Investigation of Low-Pressure Glow Discharge in a Coaxial Gridded Hollow Cathode. <i>IEEE Transactions on Plasma Science</i> , 2016, 44, 2965-2972.	1.3	14
17	Probe Diagnostics of Plasma Parameters in a Large-Volume Glow Discharge With Coaxial Gridded Hollow Electrodes. <i>IEEE Transactions on Plasma Science</i> , 2017, 45, 3110-3113.	1.3	14
18	Influence of dust particles on DC glow discharge plasma. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	14

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19	Formation of inverse electron distribution function and absolute negative conductivity in nonlocal plasma of a dc glow discharge. <i>Physical Review E</i> , 2020, 101, 031202.	2.1	14
20	1D photonic crystal filled with low-temperature plasma for controlling broadband microwave transmission. <i>AIP Advances</i> , 2019, 9, 065302.	1.3	13
21	Use of plasma electron spectroscopy method to detect hydrocarbons, alcohols, and ammonia in nonlocal plasma of short glow discharge. <i>Plasma Sources Science and Technology</i> , 2021, 30, 117001.	3.1	13
22	Numerical simulation and analysis of electromagnetic-wave absorption of a plasma slab created by a direct-current discharge with gridded anode. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	12
23	Propagation characteristics of microwaves in dusty plasmas with multi-collisions. <i>Plasma Science and Technology</i> , 2017, 19, 055301.	1.5	11
24	Boundary conditions for drift-diffusion equations in gas-discharge plasmas. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	11
25	Diagnostics of large volume coaxial gridded hollow cathode DC discharge. <i>Plasma Sources Science and Technology</i> , 2019, 28, 067001.	3.1	10
26	Dark and gray solitons in nematic liquid crystals. <i>Physica Scripta</i> , 2012, 85, 015402.	2.5	9
27	Transmission characteristics of microwave in a glow-discharge dusty plasma. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	9
28	Broadband microwave propagation in a novel large coaxial gridded hollow cathode helium plasma. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	9
29	Formation of nonmonotonic profiles of densities and fluxes of charged particles and ambipolar field reversal in argon dusty plasmas. <i>Plasma Sources Science and Technology</i> , 2019, 28, 095020.	3.1	9
30	Analysis and optimization of microwave reflections in a plasma-metal model. <i>Journal of Applied Physics</i> , 2019, 125, 163306.	2.5	9
31	Measurements of plasma parameters in a hollow electrode AC glow discharge in helium. <i>Plasma Science and Technology</i> , 2020, 22, 034006.	1.5	9
32	Machine learning combined with Langmuir probe measurements for diagnosis of dusty plasma of a positive column. <i>Plasma Science and Technology</i> , 2021, 23, 095403.	1.5	9
33	A numerical study of dynamic tunability of perfect absorption with temperature in the visible region based on a nanostructure containing multilayer graphene. <i>Optics Communications</i> , 2016, 372, 172-179.	2.1	8
34	The electrical conductivity of weakly ionized plasma containing dust particles. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 2540-2543.	2.1	8
35	On self-sustainment of DC discharges with gridded anode. <i>Journal of Applied Physics</i> , 2017, 122, .	2.5	8
36	Influence of metastable atoms on the formation of nonlocal EDF, electron reaction rates, and transport coefficients in argon plasma. <i>Plasma Sources Science and Technology</i> , 2019, 28, 035017.	3.1	8

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37	Formation of inverse EDF in glow discharges with an inhomogeneous electric field. Plasma Sources Science and Technology, 2021, 30, 095006.	3.1	8
38	The terahertz characteristics of a sandwich type microplasma structure. Journal of Applied Physics, 2013, 114, 123302.	2.5	7
39	A novel chiral nano structure for optical activities and negative refractive index. Optik, 2016, 127, 5738-5742.	2.9	7
40	Vortex electron flux and EDF nonlocality of moderate and high-pressure gas discharge plasmas. Plasma Sources Science and Technology, 2018, 27, 045007.	3.1	7
41	Influence of dust particles on spatial distributions of particles and fluxes in positive column of glow discharge. Plasma Science and Technology, 2019, 21, 115404.	1.5	7
42	Theoretical research on the transport and ionization rate coefficients in glow discharge dusty plasma. Plasma Science and Technology, 2020, 22, 034003.	1.5	7
43	Influence of the Spatial Distribution of the Dust Particle Density on the Radial Profile Formation of Particles and Fluxes in a Dusty Plasma of DC Glow Discharge. IEEE Transactions on Plasma Science, 2020, 48, 375-387.	1.3	7
44	Transition from periodic to chaotic oscillations in a planar gas discharge-semiconductor system. Plasma Sources Science and Technology, 2020, 29, 065009.	3.1	7
45	Longitudinal structure and plasma parameters of an entire DC glow discharge as obtained using a 1D fluid-based model with non-local ionization. Plasma Sources Science and Technology, 2020, 29, 075003.	3.1	7
46	The Possibility of Measuring Electron Density of Plasma at Atmospheric Pressure by a Microwave Cavity Resonance Spectroscopy. IEEE Transactions on Plasma Science, 2021, 49, 1001-1008.	1.3	7
47	Paschen curves and current-voltage characteristics of large-area short glow discharge with different electrode structures. Physics of Plasmas, 2020, 27, .	1.9	7
48	The effect of B-site cations on the properties of $KTa_{1-x}Nb_1+xO_3$ [100] surface: A study of density functional theory. Computational Materials Science, 2010, 50, 338-343.	3.0	6
49	Lagrangian approach for dark soliton in nonlocal nonlinear media. Optics Communications, 2012, 285, 3631-3635.	2.1	6
50	Influence of electron-electron collisions on the formation of a nonlocal EDF. Plasma Sources Science and Technology, 2019, 28, 015001.	3.1	6
51	The Influence of Plasma Distribution on Microwave Reflection in a Plasma-Metal Model. IEEE Transactions on Plasma Science, 2020, 48, 359-363.	1.3	6
52	Diagnostics of a microhollow cathode discharge at atmospheric pressure. Plasma Science and Technology, 2021, 23, 064001.	1.5	6
53	A method of electron density of positive column diagnosis-Combining machine learning and Langmuir probe. AIP Advances, 2021, 11, .	1.3	6
54	Tunable triangular and honeycomb plasma structures in dielectric barrier discharge with mesh-liquid electrodes. Plasma Science and Technology, 2022, 24, 015402.	1.5	6

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55	Tunable transmission near Dirac-like point in the designed plasma photonic crystal. Physics of Plasmas, 2022, 29, 033505.	1.9	6
56	Analytical calculations of intense Gaussian laser beam propagating in plasmas with relativistic collision correction. Physics of Plasmas, 2012, 19, .	1.9	5
57	Absolute continuum intensity diagnostics of a novel large coaxial gridded hollow cathode argon plasma. Physics of Plasmas, 2016, 23, .	1.9	5
58	Properties of a large volume glow discharge helium plasma by measuring the broadband microwave phase shift in different pressures. Physics of Plasmas, 2016, 23, .	1.9	5
59	The method of impedance transformation for electromagnetic waves propagating in one-dimension plasma photonic crystal. Physics of Plasmas, 2016, 23, .	1.9	5
60	Calculation of nonlocal EDF using a one-dimensional Boltzmann equation solver. Physics of Plasmas, 2019, 26, .	1.9	5
61	Propagation characteristics of a Gaussian laser beam in plasma with modulated collision frequency. Physics of Plasmas, 2012, 19, 083114.	1.9	4
62	Ponderomotive force induced nonlinear interaction between powerful terahertz waves and plasmas. Optik, 2018, 175, 250-255.	2.9	4
63	The nonlocal electron kinetics for a low-pressure glow discharge dusty plasma. Physics of Plasmas, 2018, 25, .	1.9	4
64	The Influence of the Ambipolar Field on the Levitation Conditions of Dust Particles in the Positive Column of the Glow Discharge With a Change the Spatial Orientation of the Discharge Tube. IEEE Transactions on Plasma Science, 2019, 47, 4391-4395.	1.3	4
65	Evidence of effective local control of a plasma's nonlocal electron distribution function. Plasma Sources Science and Technology, 2020, 29, 077001.	3.1	4
66	Influence of Discharge Current, Pressure, and Magnetic Field on the Spatial Distribution of Particles and Fluxes in the Dusty Plasma of the Positive Column of DC Glow Discharge. IEEE Transactions on Plasma Science, 2021, 49, 878-885.	1.3	4
67	Nonlinear propagation characteristics of multi-Gaussian beams in collisionless plasmas. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 3088.	2.1	4
68	A Study of the Dynamics of Formation of Plasmoids in the Gatchina Discharge. Technical Physics, 2021, 66, 1058-1071.	0.7	4
69	Spectral characteristics of a short glow discharge with a grid anode. AIP Advances, 2022, 12, .	1.3	4
70	Broadband microwave measurement of electron temperature of a large coaxial gridded hollow cathode helium plasma. Physics of Plasmas, 2016, 23, 103304.	1.9	3
71	The dielectric function of weakly ionized dusty plasmas. Physics of Plasmas, 2016, 23, 073301.	1.9	3
72	Broadband microwave characteristics of a novel coaxial gridded hollow cathode argon plasma. Review of Scientific Instruments, 2016, 87, 083506.	1.3	3

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73	Nonlocal control of plasma conductivity. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	3
74	Effects of Non-Maxwellian Electron Distribution Function to the Propagation Coefficients of Electromagnetic Waves in Plasma. <i>IEEE Transactions on Plasma Science</i> , 2019, 47, 100-103.	1.3	3
75	Nonlinear propagation characteristics and ring structure of a Gaussian beam in collisionless plasmas with high order paraxial ray theory. <i>Optik</i> , 2019, 179, 744-749.	2.9	3
76	Features of the EEDF formation in the dusty plasma of the positive column of a glow discharge. <i>Plasma Sources Science and Technology</i> , 2021, 30, 047001.	3.1	3
77	The structure and optical properties of lead-free transparent KNLTN-La0.01 ceramics prepared by conventional sintering technique. <i>Materials Science-Poland</i> , 2014, 32, 597-603.	1.0	2
78	A kinetic model for investigating the dielectric properties of rocket exhaust dusty plasmas. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	2
79	Measurement of Microwave Propagation in Weakly Ionized Dusty Plasma. <i>IEEE Transactions on Plasma Science</i> , 2019, 47, 109-112.	1.3	2
80	Conductivity and Permittivity in Plasma With Nonequilibrium Electron Distribution Function. <i>IEEE Transactions on Plasma Science</i> , 2020, 48, 388-393.	1.3	2
81	Measurement of the densities of plasma and ambient gas particles using a short direct current discharge. <i>Physics of Plasmas</i> , 2020, 27, 053508.	1.9	2
82	Analysis of parameters of coaxial dielectric barrier discharges in argon flow at atmospheric pressure. <i>Journal of Applied Physics</i> , 2021, 129, 153305.	2.5	2
83	Spatial solitons in nonlocal materials with defocusing defects. <i>Optics Communications</i> , 2012, 285, 1456-1460.	2.1	1
84	Ponderomotive force induced nonlinear interaction between terahertz wave and air plasmas. , 2014, , .		1
85	Broadband microwave propagation in a novel large volume glow discharge argon plasma. , 2016, , .		1
86	Local Magnetic Control in a Large-Scale Low-Pressure Nonlocal Plasma Source. <i>IEEE Transactions on Plasma Science</i> , 2017, 45, 3114-3117.	1.3	1
87	Propagation characters of multi-Gaussian beam with large eccentric displacement in collisionless plasma: Higher order paraxial theory. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	1
88	The smooth effect of fast electron detection in the positive column in DC glow discharge. <i>AIP Advances</i> , 2019, 9, 095033.	1.3	1
89	Research on small-scale structures of ice particle density and electron density in the mesopause region. <i>Annales Geophysicae</i> , 2019, 37, 1079-1094.	1.6	1
90	Magnetically insulated baffled probe (MIBP) for low-temperature and fusion-boundary plasma studies. <i>Plasma Physics and Controlled Fusion</i> , 2021, 63, 093001.	2.1	1

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91	Parametric study of coaxial dielectric barrier discharge in atmospheric pressure argon. <i>Physics of Plasmas</i> , 2021, 28, 113505.	1.9	1
92	Attenuation of Microwave Radiation by Post-Anode Plasma in a Composite Grid Electrode Structure. <i>IEEE Access</i> , 2022, 10, 7675-7683.	4.2	1
93	Specificities of the Nonlocal EDF Formation in a Dusty Plasma With the Different Spatial Distribution of the Microparticle Density. <i>IEEE Transactions on Plasma Science</i> , 2022, 50, 1653-1660.	1.3	1
94	Characteristics of a short linear antenna with a cylindrical plasma reflector. , 2021, , .		1
95	Radiation pattern in a tunable plasma window antenna. <i>Journal Physics D: Applied Physics</i> , 0, , .	2.8	1
96	Beam steering in a nonlocal medium with inhomogeneous nonlinearity. <i>Journal of Optics (United Kingdom)</i> 10, 10, 10.	2.2	0
97	Propagating characters of Gaussian laser beam in plasmas with non-homogeneous radial temperature distribution. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012, 376, 1211-1214.	2.1	0
98	Propagation of electromagnetic waves in a glow-discharge dusty plasma. , 2016, , .		0
99	The role of the ambipolar field in the formation of the EDF and the criteria of the local approximation. <i>Journal of Physics: Conference Series</i> , 2017, 927, 012080.	0.4	0
100	Wave propagation coefficients in non-maxwellian plasma. , 2017, , .		0
101	Effects of Druyvesteyn Distribution to Transmission Coefficients in Plasma. , 2018, , .		0
102	The Nonlinear Propagation of Terahertz Wave in Plasmas. , 2018, , .		0
103	Microwave technology used for plasma diagnostic in complicated situations. , 2018, , .		0
104	Propagation of Electromagnetic Wave in a Coaxial Gridded Hollow Cathode Dusty Plasma. , 2018, , .		0
105	The Microwave Absorbing Performance of Co <sup>2+</sup> - Ti <sup>4+</sup> Co-doped Barium Ferrite Ceramics. , 2018, , .		0
106	Ambipolar Trap for Dust Particles in a V-Shaped Homogeneous Positive Column of Glow Discharge at Low and Medium Pressures. <i>IEEE Transactions on Plasma Science</i> , 2021, 49, 997-1000.	1.3	0
107	Specificity of the EEDF formation in a dusty plasma with nonmonotonic profiles of charged particles and reversal ambipolar field. <i>Chinese Journal of Physics</i> , 2022, , .	3.9	0
108	Measurements of fluctuating electron temperature and space potential in a magnetized plasma with a single magnetically insulated baffled probe (MIBP). <i>Plasma Sources Science and Technology</i> , 2022, 31, 037001.	3.1	0

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109	Microwave Switch in a Circular Waveguide with Gas Microwave Discharge in a High-power Microwave Pulse Compression System For a Solar Space. , 2021, , .		0
110	Focusing effect of inhomogeneous plasma on electromagnetic wave. , 2021, , .		0
111	Numerical simulation of the dynamics of the temperature of electrons heated by fast electrons formed during the modification of ionosphere by RF waves. , 2021, , .		0
112	Heating rate of thermal electrons by the fast part of EDF in the ionosphere. , 2021, , .		0
113	Microwave Diagnostics of Cold Atmospheric Pressure Plasma Jets Based on the Radiation Pattern Measurements. IEEE Transactions on Plasma Science, 2022, 50, 1669-1674.	1.3	0
114	On the Possibility of Creating Absolute Negative Conductivity in a Local Stationary Plasma With an Inverse EDF. IEEE Transactions on Plasma Science, 2022, 50, 1695-1699.	1.3	0
115	Influence of Electronâ€“Electron Collisions on the Formation of Inverse Electron Distribution Function and Absolute Negative Conductivity in Nonlocal Plasma of a DC Glow Discharge. IEEE Transactions on Plasma Science, 2022, 50, 1689-1694.	1.3	0