

# He-Ping Li

## List of Publications by Year in descending order

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101  
papers

2,426  
citations

236925

25  
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233421

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g-index

104  
all docs

104  
docs citations

104  
times ranked

1778  
citing authors

#	ARTICLE	IF	CITATIONS
1	Atmospheric and room temperature plasma (ARTP) as a new powerful mutagenesis tool. Applied Microbiology and Biotechnology, 2014, 98, 5387-5396.	3.6	258
2	Novel mutation breeding method for <i>Streptomyces avermitilis</i> using an atmospheric pressure glow discharge plasma. Journal of Applied Microbiology, 2010, 108, 851-858.	3.1	126
3	Application of Steenbeck's minimum principle for three-dimensional modelling of DC arc plasma torches. Journal Physics D: Applied Physics, 2003, 36, 1084-1096.	2.8	110
4	Genetic effects of radio-frequency, atmospheric-pressure glow discharges with helium. Applied Physics Letters, 2008, 92, .	3.3	107
5	Rapid Mutation of <i>Spirulina platensis</i> by a New Mutagenesis System of Atmospheric and Room Temperature Plasmas (ARTP) and Generation of a Mutant Library with Diverse Phenotypes. PLoS ONE, 2013, 8, e77046.	2.5	98
6	Quantitative evaluation of DNA damage and mutation rate by atmospheric and room-temperature plasma (ARTP) and conventional mutagenesis. Applied Microbiology and Biotechnology, 2015, 99, 5639-5646.	3.6	92
7	A salt tolerant <i>Enterobacter cloacae</i> mutant for bioaugmentation of petroleum- and salt-contaminated soil. Biochemical Engineering Journal, 2010, 49, 201-206.	3.6	86
8	Characteristics of hydrogen production of an <i>Enterobacter aerogenes</i> mutant generated by a new atmospheric and room temperature plasma (ARTP). Biochemical Engineering Journal, 2011, 55, 17-22.	3.6	80
9	Manipulation of Lipase Activity by the Helium Radio-Frequency, Atmospheric-Pressure Glow Discharge Plasma Jet. Plasma Processes and Polymers, 2011, 8, 224-229.	3.0	70
10	Effect of a near-cathode sheath on heat transfer in high-pressure arc plasmas. Journal Physics D: Applied Physics, 2007, 40, 2010-2017.	2.8	65
11	Three Dimensional Modeling of the Plasma Spray Process. Journal of Thermal Spray Technology, 2007, 16, 245-260.	3.1	61
12	Title is missing!. Plasma Chemistry and Plasma Processing, 2002, 22, 27-58.	2.4	58
13	Three-dimensional modelling of a dc non-transferred arc plasma torch. Journal Physics D: Applied Physics, 2001, 34, L99-L102.	2.8	57
14	Electrical Features of Radio-frequency, Atmospheric-pressure, Bare-metallic-electrode Glow Discharges. Plasma Chemistry and Plasma Processing, 2007, 27, 529-545.	2.4	45
15	A numerical model of non-equilibrium thermal plasmas. I. Transport properties. Physics of Plasmas, 2013, 20, 033508.	1.9	43
16	Array of surface-confined glow discharges in atmospheric pressure helium: Modes and dynamics. Applied Physics Letters, 2014, 104, .	3.3	40
17	The energy tree: Non-equilibrium energy transfer in collision-dominated plasmas. Physics Reports, 2018, 770-772, 1-45.	25.6	38
18	The reactive thermal conductivity for a two-temperature plasma. International Journal of Heat and Mass Transfer, 2003, 46, 1443-1454.	4.8	35

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19	Translational plasma stomatology: applications of cold atmospheric plasmas in dentistry and their extension. <i>High Voltage</i> , 2017, 2, 188-199.	4.7	35
20	Heat transfer and fluid flow in a high-intensity free-burning arc: an improved modeling approach. <i>International Journal of Heat and Mass Transfer</i> , 2001, 44, 2541-2553.	4.8	34
21	Sheath and arc-column voltages in high-pressure arc discharges. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 355201.	2.8	34
22	Three-dimensional simulation of a plasma jet with transverse particle and carrier gas injection. <i>Thin Solid Films</i> , 2001, 390, 175-180.	1.8	32
23	Strain improvement for enhanced production of cellulase in <i>Trichoderma viride</i> . <i>Applied Biochemistry and Microbiology</i> , 2011, 47, 53-58.	0.9	29
24	Enhanced Biological Behavior of In Vitro Human Gingival Fibroblasts on Cold Plasma-Treated Zirconia. <i>PLoS ONE</i> , 2015, 10, e0140278.	2.5	29
25	A numerical model of non-equilibrium thermal plasmas. II. Governing equations. <i>Physics of Plasmas</i> , 2013, 20, 033509.	1.9	27
26	Inhibition of bacterial growth on zirconia abutment with a helium cold atmospheric plasma jet treatment. <i>Clinical Oral Investigations</i> , 2020, 24, 1465-1477.	3.0	26
27	Discharge characteristics of atmospheric-pressure radio-frequency glow discharges with argon/nitrogen. <i>Applied Physics Letters</i> , 2006, 89, 161504.	3.3	25
28	Studies on the Physical Characteristics of the Radio-Frequency Atmospheric-Pressure Glow Discharge Plasmas for the Genome Mutation of <i>Methylosinus trichosporium</i> . <i>IEEE Transactions on Plasma Science</i> , 2012, 40, 2853-2860.	1.3	25
29	Effects and mechanisms of cold atmospheric plasma on skin wound healing of rats. <i>Contributions To Plasma Physics</i> , 2019, 59, 92-101.	1.1	24
30	Characteristics of atmospheric-pressure, radio-frequency glow discharges operated with argon added ethanol. <i>Journal of Applied Physics</i> , 2007, 101, 123302.	2.5	21
31	Effects of a modified cold atmospheric plasma jet treatment on resin-dentin bonding. <i>Dental Materials Journal</i> , 2018, 37, 798-804.	1.8	21
32	Three-dimensional, nonequilibrium effects in a high-intensity blown arc. <i>IEEE Transactions on Plasma Science</i> , 2005, 33, 402-403.	1.3	20
33	Three-dimensional modelling of the flow and heat transfer in a laminar non-transferred arc plasma torch. <i>Chinese Physics B</i> , 2002, 11, 44-49.	1.3	19
34	Promotion of Wound Healing of Genetic Diabetic Mice Treated by a Cold Atmospheric Plasma Jet. <i>IEEE Transactions on Plasma Science</i> , 2019, 47, 4848-4860.	1.3	19
35	<i>In situ</i> measurement of the two-dimensional temperature field of a dual-jet direct-current arc plasma. <i>Review of Scientific Instruments</i> , 2016, 87, 033502.	1.3	18
36	Three-dimensional flow and heat transfer in thermal plasma systems. <i>Surface and Coatings Technology</i> , 2003, 171, 124-133.	4.8	17

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37	Characteristics of radio-frequency, atmospheric-pressure glow discharges with air using bare metal electrodes. <i>Applied Physics Letters</i> , 2006, 89, 161502.	3.3	17
38	The back-diffusion effect of air on the discharge characteristics of atmospheric-pressure radio-frequency glow discharges using bare metal electrodes. <i>Plasma Sources Science and Technology</i> , 2007, 16, 290-296.	3.1	17
39	Characteristics of kilohertz-ignited, radio-frequency atmospheric-pressure dielectric barrier discharges in argon. <i>Applied Physics Letters</i> , 2009, 95, 201501.	3.3	17
40	Non-equilibrium synergistic effects in atmospheric pressure plasmas. <i>Scientific Reports</i> , 2018, 8, 4783.	3.3	17
41	Discharge features of radio-frequency, atmospheric-pressure cold plasmas under an intensified local electric field. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 202001.	2.8	16
42	Culture characteristics of the atmospheric and room temperature plasma-mutated <i>Spirulina platensis</i> mutants in CO <sub>2</sub> aeration culture system for biomass production. <i>Journal of Bioscience and Bioengineering</i> , 2015, 120, 438-443.	2.2	16
43	Evaluation of the Two-Dimensional Temperature Field and Instability of a Dual-Jet DC Arc Plasma Based on the Image Chain Coding Technique. <i>IEEE Transactions on Plasma Science</i> , 2011, 39, 2884-2885.	1.3	15
44	Particle-in-cell and Monte Carlo collision simulations of the cathode sheath in an atmospheric direct-current arc discharge. <i>Plasma Sources Science and Technology</i> , 2016, 25, 05LT01.	3.1	14
45	Numerical and Experimental Studies on the Interactions Between the Radio-Frequency Glow Discharge Plasma Jet and the Shielding Gas at Atmosphere. <i>IEEE Transactions on Plasma Science</i> , 2018, 46, 2766-2775.	1.3	14
46	Modeling on the Momentum and Heat/Mass Transfer Characteristics of an Argon Plasma Jet Issuing into Air Surroundings and Interacting with a Counter-Injected Argon Jet. <i>Plasma Chemistry and Plasma Processing</i> , 2011, 31, 373-392.	2.4	13
47	Insights into the molecular-level effects of atmospheric and room-temperature plasma on mononucleotides and single-stranded homo- and hetero-oligonucleotides. <i>Scientific Reports</i> , 2020, 10, 14298.	3.3	13
48	Kinetic analysis of direct-current driven microdischarges with thermo-field electron emission at atmospheric pressure. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 455201.	2.8	13
49	Volt-Ampere and Thermal Features of a Direct-Current Dual-Jet Plasma Generator With a Cold Gas Injection. <i>IEEE Transactions on Plasma Science</i> , 2010, 38, 2906-2913.	1.3	12
50	Effect of a floating electrode on an atmospheric-pressure non-thermal arc discharge. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	12
51	Combined diffusion coefficients for a mixture of three ionized gases. <i>Plasma Sources Science and Technology</i> , 2014, 23, 065044.	3.1	12
52	Purification of terbium by means of argon and hydrogen plasma arc melting. <i>Journal of Alloys and Compounds</i> , 2016, 659, 1-7.	5.5	12
53	Different behavior of human gingival fibroblasts on surface modified zirconia: A comparison between ultraviolet (UV) light and plasma. <i>Dental Materials Journal</i> , 2019, 38, 756-763.	1.8	12
54	Effects of the shielding cylinder and substrate on the characteristics of an argon radio-frequency atmospheric glow discharge plasma jet. <i>Journal of Applied Physics</i> , 2010, 107, .	2.5	11

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55	Comparison of the transport properties of two-temperature argon plasmas calculated using different methods. <i>Plasma Sources Science and Technology</i> , 2015, 24, 035011.	3.1	11
56	Dual Torch Plasma Arc Furnace for Medical Waste Treatment. <i>Plasma Science and Technology</i> , 2007, 9, 709-712.	1.5	10
57	Influences of gas flowing on the features of a helium radio-frequency atmospheric-pressure glow discharge. <i>Applied Thermal Engineering</i> , 2014, 72, 82-89.	6.0	10
58	Comparison of electrical and optical characteristics in gas-phase and gas-liquid phase discharges. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	10
59	Three-Dimensional Non-equilibrium Modeling on the Characteristics of the Dual-Jet Direct-Current Arc Plasmas. <i>Plasma Chemistry and Plasma Processing</i> , 2015, 35, 75-89.	2.4	10
60	Physicochemical properties of the AC-excited helium discharges using a water electrode. <i>Plasma Science and Technology</i> , 2018, 20, 075403.	1.5	10
61	Quantitative evaluation of DNA damage caused by atmospheric and room-temperature plasma (ARTP) and other mutagenesis methods using a rapid umu-microplate test protocol for microbial mutation breeding. <i>Chinese Journal of Chemical Engineering</i> , 2021, 39, 205-210.	3.5	10
62	Characteristics of Atmospheric Room-Temperature Argon Plasma Streams Produced Using a Dielectric Barrier Discharge Generator With a Cylindrical Screwlike Inner Electrode. <i>IEEE Transactions on Plasma Science</i> , 2012, 40, 2172-2178.	1.3	9
63	An Atmospheric Cold Plasma Jet With a Good Uniformity, Robust Stability, and High Intensity Over a Large Area. <i>IEEE Transactions on Plasma Science</i> , 2014, 42, 2470-2471.	1.3	9
64	Radio-Frequency Glow Discharges of Different Gases Using Bare Metallic Electrodes at Atmospheric Pressure. <i>IEEE Transactions on Plasma Science</i> , 2008, 36, 1418-1419.	1.3	8
65	Volt-ampere and Thermal Characteristics of a Direct-Current Dual-Jet Plasma Generator. <i>IEEE Transactions on Plasma Science</i> , 2009, 37, 1129-1135.	1.3	8
66	Modeling of the heat transfer and flow features of the thermal plasma reactor with counter-flow gas injection. <i>International Journal of Heat and Mass Transfer</i> , 2009, 52, 760-766.	4.8	8
67	One-Dimensional Modeling on the Asymmetric Features of a Radio-Frequency Atmospheric Helium Glow Discharge Produced Using a Co-Axial-Type Plasma Generator. <i>Plasma Chemistry and Plasma Processing</i> , 2012, 32, 859-874.	2.4	8
68	Influences of the inner diameter of the solid shielding tube on the characteristics of the radio-frequency cold atmospheric plasma jet. <i>Plasma Science and Technology</i> , 2019, 21, 095402.	1.5	8
69	Beam-assisted extraction of charged particles from a decaying plasma. <i>Plasma Sources Science and Technology</i> , 2020, 29, 025010.	3.1	8
70	Validated two-dimensional modeling of short carbon arcs: Anode and cathode spots. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	8
71	Radio-Frequency, Atmospheric-Pressure Glow Discharges: Producing Methods, Characteristics and Applications in Bio-Medical Fields. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	7
72	Influences of the cold atmospheric plasma jet treatment on the properties of the demineralized dentin surfaces. <i>Plasma Science and Technology</i> , 2018, 20, 044010.	1.5	7

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73	Effects of electron temperature on the ion extraction characteristics in a decaying plasma confined between two parallel plates. <i>Plasma Science and Technology</i> , 2019, 21, 045402.	1.5	7
74	Modeling of the charged particle transport process in a decaying plasma with a $\hat{I}$ -type electrode configuration. <i>Japanese Journal of Applied Physics</i> , 2021, 60, SAAB05.	1.5	7
75	Three-dimensional effects inside a dc arc plasma torch. <i>IEEE Transactions on Plasma Science</i> , 2005, 33, 400-401.	1.3	6
76	Characteristics of a radio-frequency cold atmospheric plasma jet produced with a hybrid cross-linear-field electrode configuration. <i>Plasma Science and Technology</i> , 2019, 21, 055401.	1.5	6
77	Time-dependent reactive oxygen species inhibit <i>Streptococcus mutans</i> growth on zirconia after a helium cold atmospheric plasma treatment. <i>Materials Science and Engineering C</i> , 2021, 120, 111633.	7.3	6
78	Key chemical reaction pathways in a helium-nitrogen atmospheric glow discharge plasma based on a global model coupled with the genetic algorithm and dynamic programming. <i>Journal of Applied Physics</i> , 2021, 129, 133302.	2.5	6
79	Promotion of the Wound Healing of <i>in vivo</i> Rabbit Wound Infected With Methicillin-Resistant <i>Staphylococcus aureus</i> Treated by a Cold Atmospheric Plasma Jet. <i>IEEE Transactions on Plasma Science</i> , 2021, 49, 2329-2339.	1.3	6
80	Effects of a helium cold atmospheric plasma on bonding to artificial caries-affected dentin. <i>Dental Materials Journal</i> , 2022, 41, 101-109.	1.8	6
81	Degradation of Organic Compounds Using a 2-D Capillary Discharge Array in Water. <i>IEEE Transactions on Plasma Science</i> , 2014, 42, 2628-2629.	1.3	5
82	Dimensionless factors for an alternating-current non-thermal arc plasma. <i>Physics of Plasmas</i> , 2016, 23, 120707.	1.9	5
83	Effects of Liquid Electrical Conductivity on the Electrical and Optical Characteristics of an AC-Excited Argon Gas-Liquid-Phase Discharge. <i>IEEE Transactions on Plasma Science</i> , 2018, 46, 2856-2864.	1.3	5
84	On the Correct Form of the Saha Equation for Two-Temperature Plasmas. <i>Chinese Physics Letters</i> , 1999, 16, 193-195.	3.3	4
85	Characterization of cold atmospheric plasma-modified dentin collagen. <i>Dental Materials Journal</i> , 2022, 41, 473-480.	1.8	4
86	Two-dimensional modelling of a DC arc plasma furnace with opposite cathode and anode. <i>Progress in Computational Fluid Dynamics</i> , 2008, 8, 424.	0.2	3
87	Studies on the mutation breeding mechanism of <i>Streptomyces avermitilis</i> by a novel atmospheric-pressure, low-temperature discharge plasma. <i>Journal of Biotechnology</i> , 2008, 136, S22.	3.8	2
88	Note: Stability control of intermediate frequencies of a three laser far-infrared polarimeter-interferometer system. <i>Review of Scientific Instruments</i> , 2016, 87, 126102.	1.3	1
89	Analyses on the non-equilibrium transport processes in a free-burning argon arc plasma under different operating conditions. <i>Plasma Sources Science and Technology</i> , 0, , .	3.1	1
90	A Novel Method for Estimating the Dosage of Cold Atmospheric Plasmas in Plasma Medical Applications. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 11135.	2.5	1

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91	Applications of Cold Atmospheric Plasmas (CAPs) in Agriculture: A Brief Review and Novel Development of a Radio-Frequency CAP Jet Generator for Plant Mutation. Plasma Science and Technology, 0, , .	1.5	1
92	Energy exchange modulation for selective control of gas temperature and electron number density in cold atmospheric plasmas. Plasma Sources Science and Technology, 0, , .	3.1	1
93	Aortic valve opening in mock-loop with continuous-flow left ventricular assist device. International Journal of Artificial Organs, 0, , 039139882211118.	1.4	1
94	Numerical simulation of radio frequency atmospheric pressure glow discharges for the applications in the microbial genome mutation. , 2012, , .		0
95	Atmospheric room-temperature helium plasma streams produced using a dielectric barrier discharge generator with a honeycomb-like inner electrode. , 2012, , .		0
96	Studies on the electrical characteristics of a radio-frequency atmospheric-pressure plasma jet array. , 2012, , .		0
97	Integrated experimental and zerodimensional numerical analysis of an atmospheric pressure reactive argon plasma jet generated by dielectric barrier discharges. , 2012, , .		0
98	Investigation of cold atmospheric plasma treatment in polydimethylsiloxane microfluidic devices with a transmural method. Journal of Physics Condensed Matter, 2018, 30, 384001.	1.8	0
99	Key Parameter Measurements of the Low-Pressure Gas Discharge Plasmas Used for Studying the Ion Extraction Process. , 2017, , 521-531.		0
100	A Micro-Scale Low-Temperature Atmospheric Micro-Plasma Jet with Hollow-Cone Electrodes. , 2022, , .		0
101	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