

# Liming Wang

## List of Publications by Year in descending order

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139  
papers

1,839  
citations

257450

24  
h-index

361022

35  
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139  
all docs

139  
docs citations

139  
times ranked

1454  
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of the transition from a Townsend discharge to a glow discharge in helium at atmospheric pressure. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	94
2	Effect of electric field distribution uniformity on electrospinning. <i>Journal of Applied Physics</i> , 2008, 103, .	2.5	88
3	Positive corona inception voltages and corona currents for air at various pressures and humidities. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2010, 17, 63-70.	2.9	65
4	Negative corona inception voltages in rod-plane gaps at various air pressures and humidities. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2011, 18, 613-619.	2.9	56
5	Study on hydrophobicity transfer of RTV coatings based on a modification of absorption and cohesion theory. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2006, 13, 1317-1324.	2.9	53
6	Distributed Event-Triggered $H_\infty$ Consensus Based Current Sharing Control of DC Microgrids Considering Uncertainties. <i>IEEE Transactions on Industrial Informatics</i> , 2020, 16, 7413-7425.	11.3	52
7	Electric Field Analysis of Water Drop Corona. <i>IEEE Transactions on Power Delivery</i> , 2005, 20, 964-969.	4.3	49
8	Reducing Ice Accumulation on Insulators by Applying Semiconducting RTV Silicone Coating. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2007, 14, 1446-1454.	2.9	48
9	Effect of Hydrophobicity on Electric Field Distribution and Discharges Along Various Wetted Hydrophobic Surfaces. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2008, 15, 435-443.	2.9	46
10	Radial evolution of dielectric barrier glowlike discharge in helium at atmospheric pressure. <i>Applied Physics Letters</i> , 2007, 91, 231504.	3.3	34
11	Impact of Surface Roughness on Corona Discharge for 30-year Operating Conductors in 500-kV ac Power Transmission Line. <i>IEEE Transactions on Power Delivery</i> , 2012, 27, 1693-1695.	4.3	32
12	Pollution flashover performance of full-scale $\pm 800$ kV converter station post insulators at high altitude area. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2013, 20, 717-726.	2.9	32
13	Review of flash sintering with strong electric field. <i>High Voltage</i> , 2022, 7, 1-11.	4.7	31
14	Experimental Investigation on Outdoor Insulation for DC Transmission Line at High Altitudes. <i>IEEE Transactions on Power Delivery</i> , 2010, 25, 351-357.	4.3	30
15	Influence of composite insulator shed design on contamination flashover performance at high altitudes. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2011, 18, 739-744.	2.9	30
16	Effect of ultraviolet-A radiation on surface structure, thermal, and mechanical and electrical properties of liquid silicone rubber. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47652.	2.6	30
17	Distributed Power Sharing Control for Islanded Single-/Three-Phase Microgrids With Admissible Voltage and Energy Storage Constraints. <i>IEEE Transactions on Smart Grid</i> , 2021, 12, 2760-2775.	9.0	30
18	Investigation on Field-Aged RTV-Coated Insulators Used in Heavily Contaminated Areas. <i>IEEE Transactions on Power Delivery</i> , 2007, 22, 1117-1124.	4.3	29

#	ARTICLE	IF	CITATIONS
19	Variation of the Dynamics of Positive Streamer with Pressure and Humidity in Air. IEEE Transactions on Dielectrics and Electrical Insulation, 2008, 15, 382-389.	2.9	28
20	Characteristics of streamer propagation along the insulation surface: influence of dielectric material. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 1193-1203.	2.9	28
21	Fully distributed multi-area dynamic economic dispatch method with second-order convergence for active distribution networks. IET Generation, Transmission and Distribution, 2017, 11, 3955-3965.	2.5	28
22	Effect of arcing on DC flashover performance of contaminated porcelain insulators for various suspension patterns at high altitudes. IEEE Transactions on Dielectrics and Electrical Insulation, 2008, 15, 783-791.	2.9	27
23	Investigation of DC discharge behavior of polluted porcelain post insulator in artificial rain. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 331-338.	2.9	27
24	Metal Contamination Distribution Detection in High-Voltage Transmission Line Insulators by Laser-induced Breakdown Spectroscopy (LIBS). Sensors, 2018, 18, 2623.	3.8	26
25	Determinants of the Asymmetric Parameter in the Generalized Complementary Principle of Evaporation. Water Resources Research, 2020, 56, e2019WR026570.	4.2	25
26	Detection of Small Defects in Composite Insulators Using Terahertz Technique and Deconvolution Method. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 8146-8155.	4.7	25
27	Pixel-Level Classification of Pollution Severity on Insulators Using Photothermal Radiometry and Multiclass Semisupervised Support Vector Machine. IEEE Transactions on Industrial Informatics, 2021, 17, 441-449.	11.3	25
28	Synergy Study for Plasma-Facilitated $\text{C}_{2}\text{H}_{4}$ Selective Catalytic Reduction of $\text{NO}_x$ Over $\text{Ag}/\gamma\text{-Al}_2\text{O}_3$ Catalyst. IEEE Transactions on Plasma Science, 2007, 35, 663-669.	1.3	24
29	Comparison of four commonly used high temperature vulcanized silicone rubber formulas for outdoor insulator and their regional adaptability. Journal of Applied Polymer Science, 2019, 136, 47477.	2.6	23
30	Pollution flashover performance of RTV coatings with partial damage. International Journal of Electrical Power and Energy Systems, 2020, 121, 106102.	5.5	23
31	Inactivation Effects of PEF on Horseradish Peroxidase (HRP) and Pectinesterase (PE). IEEE Transactions on Plasma Science, 2006, 34, 2630-2636.	1.3	22
32	A Low-Cost Evaluation and Correction Method for the Soluble Salt Components of the Insulator Contamination Layer. IEEE Sensors Journal, 2019, 19, 5266-5273.	4.7	22
33	Electromagnetic Induction Position Sensor Applied to Anti-Misalignment Wireless Charging for UAVs. IEEE Sensors Journal, 2020, 20, 515-524.	4.7	22
34	Surface Hardness Analysis of Aged Composite Insulators via Laser-Induced Plasma Spectra Characterization. IEEE Transactions on Plasma Science, 2019, 47, 387-394.	1.3	21
35	Conductor Surface Conditions Effects on the Ion-Flow Field of Long-Term Operating Conductors of the HVDC Transmission Line. IEEE Transactions on Power Delivery, 2017, 32, 2171-2178.	4.3	20
36	Influence of sugar as a contaminant on outdoor insulation characteristics of insulators in a substation. IEEE Transactions on Dielectrics and Electrical Insulation, 2012, 19, 1318-1324.	2.9	19

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37	Development of contamination flashover pre-warning system and analysis of operating experience. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 2234-2241.	2.9	19
38	Detecting Defects in Porcelain Postinsulator Coated With Room Temperature Vulcanized Silicone Rubber by Pulsed Thermography. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 225-233.	4.7	19
39	An experimental study of AC arc propagation over a contaminated surface. IEEE Transactions on Dielectrics and Electrical Insulation, 2012, 19, 1360-1368.	2.9	18
40	Sigmoid Generalized Complementary Equation for Evaporation Over Wet Surfaces: A Nonlinear Modification of the Priestley-Taylor Equation. Water Resources Research, 2021, 57, e2020WR028737.	4.2	18
41	Effects of natural contamination components on the surface conductivity under saturated moisture. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 2945-2951.	2.9	16
42	Terahertz Imaging Method for Composite Insulator Defects Based on Edge Detection Algorithm. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	4.7	16
43	Measurement of the electron density in a microwave plasma torch at atmospheric pressure. Applied Physics Letters, 2009, 95, .	3.3	15
44	Quantitative Detection of Interfacial Air Gap in Insulation Equipment Based on Terahertz Wave Contrast Method. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 4896-4905.	4.7	15
45	Differential Evolution Fitting-Based Optical Step-Phase Thermography for Micrometer Thickness Measurement of Atmospheric Corrosion Layer. IEEE Transactions on Industrial Informatics, 2020, 16, 5213-5222.	11.3	15
46	Remote Optical Thermography Detection Method and System for Silicone Polymer Insulating Materials Used in Power Industry. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 5782-5790.	4.7	15
47	Characteristics of streamer propagation along insulation surface: quantitative influence of permittivity and surface properties. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 2867-2874.	2.9	14
48	Nondestructive Visualization and Quantitative Characterization of Defects in Silicone Polymer Insulators Based on Laser Shearography. IEEE Sensors Journal, 2019, 19, 6508-6516.	4.7	14
49	Conductor Surface Conditions Effects on Audible Noise Spectrum Characteristics of Positive Corona Discharge. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 1872-1878.	2.9	13
50	AdaBoost-SVM for Electrical Theft Detection and GRNN for Stealing Time Periods Identification. , 2018, , .		13
51	Characteristics of Microwave Plasma Torch at Atmospheric Pressure. IEEE Transactions on Plasma Science, 2010, 38, 3197-3200.	1.3	12
52	Mechanism of fracture related heating for 500-kV composite insulators in highly humid areas. International Transactions on Electrical Energy Systems, 2016, 26, 641-654.	1.9	12
53	Time-domain performance of audible noise for positive dc corona: Numerical simulations and measurements. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 3275-3282.	2.9	12
54	A Power Supply Technology for a Low-Power Online Monitoring Sensor Based on Electric Field Induction. Sensors, 2019, 19, 2169.	3.8	12

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55	Spectroscopic investigation of the bipolar pulsed discharge in water-air mixture. IEEE Transactions on Plasma Science, 2006, 34, 1033-1037.	1.3	11
56	Prospects of anaerobic digestion technology in China. Tsinghua Science and Technology, 2007, 12, 435-440.	6.1	11
57	Influencing Factors of Dielectric Breakdown in the PEF Treatment Chamber. IEEE Transactions on Plasma Science, 2015, 43, 610-616.	1.3	11
58	Measurement of Saturated Water Absorption of the Contamination Layer Deposited on Insulator Surface. IEEE Sensors Journal, 2019, 19, 10804-10811.	4.7	11
59	Trait-Based Climate Change Predictions of Vegetation Sensitivity and Distribution in China. Frontiers in Plant Science, 2019, 10, 908.	3.6	11
60	Characteristics of streamer propagation along insulation surface: influence of shed configuration. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 2145-2155.	2.9	10
61	Impact of Large-Scale Afforestation on Surface Temperature: A Case Study in the Kubuqi Desert, Inner Mongolia Based on the WRF Model. Forests, 2019, 10, 368.	2.1	9
62	A Semisupervised Learning Framework for Recognition and Classification of Defects in Transient Thermography Detection. IEEE Transactions on Industrial Informatics, 2022, 18, 2632-2640.	11.3	9
63	Transient thermal pattern separation and detection of conductive defects in composite insulators using eddy current pulsed thermography. NDT and E International, 2022, 129, 102653.	3.7	9
64	Included Angle Selection of V-Shape Insulator String for 750-kV Compact Transmission Line. IEEE Transactions on Power Delivery, 2011, 26, 385-393.	4.3	8
65	Pulsed infrared thermography to inspect the internal defects of composite insulators. , 2017, , .		8
66	The Shed Hole Influence on the Electrical Performance of Composite Insulator. IEEE Access, 2020, 8, 217447-217455.	4.2	8
67	Multiple Jets in Electrospinning. , 2006, , .		7
68	Installing insulation jacket to improve outdoor insulation performance of composite insulator. IEEE Transactions on Dielectrics and Electrical Insulation, 2011, 18, 2004-2012.	2.9	7
69	A new multi-gap spark switch connected with frequency-dependent network for EHV overvoltage protection applications. IEEE Transactions on Dielectrics and Electrical Insulation, 2012, 19, 1369-1376.	2.9	7
70	Unmanned Aerial Vehicle Intelligent Patrol-Inspection System Applied to Transmission Grid. , 2018, , .		7
71	Detection of Internal Defects of Full-Size Composite Insulators Based on Microwave Technique. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	4.7	7
72	Analysis and Optimization on Non-uniformity of Temperature Distribution in Hydrophobic Cycloaliphatic Epoxy Resin Insulators during the Curing Process. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1810-1818.	2.9	7

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73	Simultaneously improving toughness and hydrophobic properties of cycloaliphatic epoxy resin through silicone prepolymer. Journal of Applied Polymer Science, 2022, 139, .	2.6	7
74	Hydrophobicity transfer property of silicone rubber material. , 2012, , .		6
75	Formation of Active Species by Bipolar Pulsed Discharge in Water. IEEE Transactions on Plasma Science, 2012, 40, 2360-2365.	1.3	6
76	Predictive calculation of ion current environment of dc transmission line based on ionised flow model of embedded short-term wind speed. IET Generation, Transmission and Distribution, 2018, 12, 3837-3843.	2.5	6
77	The Effect of a Vertical Electric Field on the Surface Flashover Characteristics of a Bushing Model. Energies, 2018, 11, 1607.	3.1	6
78	Intelligent Aging Diagnosis of Conductor in Smart Grid Using Label-Distribution Deep Convolutional Neural Networks. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-8.	4.7	6
79	Detection of Double-layer Air Gap Defects Based on Terahertz Imaging Method. , 2021, , .		5
80	Influence of Silicone Rubber Coating on the Characteristics of Surface Streamer Discharge. Polymers, 2021, 13, 3784.	4.5	5
81	Equipotential shielding voltage sensor for contact measurement of transient voltage in EHV/UHV power grids. High Voltage, 2021, 6, 291-301.	4.7	5
82	Dynamics characteristic of V-string composite insulators for 330kV overhead transmission line. , 2006, , .		4
83	An application of RTV with different conductivities in anti-icing. , 2009, , .		4
84	A new method to measure RTV coatings thickness with laser-induced breakdown spectroscopy (LIBS) technique. , 2016, , .		4
85	Inception threshold conditions for positive dc corona in a rod-plane electrode at low atmospheric temperatures. Physics of Plasmas, 2017, 24, .	1.9	4
86	Characteristic properties of High Consistency Rubber and Liquid Silicone Rubber. , 2018, , .		4
87	DC Breakdown Characteristic of Air Gap With Water Droplets. IEEE Transactions on Plasma Science, 2021, 49, 1962-1968.	1.3	4
88	Characterisation parameter of atmospheric pollutant concentration for external insulation. IET Generation, Transmission and Distribution, 2020, 14, 4547-4552.	2.5	4
89	Temporal and spatial characteristics of soluble salt components accreted on the insulator surface. IET Science, Measurement and Technology, 2020, 14, 891-896.	1.6	4
90	Photothermal Radar Shearography: A Novel Transient-Based Speckle Pattern Interferometry for Depth-Tomographic Inspection. IEEE Transactions on Industrial Informatics, 2022, 18, 4352-4360.	11.3	4

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91	Streamer Propagation along the Insulator with the Different Curved Profiles of the Shed. <i>Polymers</i> , 2022, 14, 897.	4.5	4
92	Novel microcapsule-doped insulating material with hydrophobicity transfer capability triggered by creepage discharge. <i>High Voltage</i> , 2022, 7, 950-959.	4.7	4
93	Comparative analysis of single- and multiple-frequency thermal wave radar imaging inspection of glass fiber reinforced polymer (GFRP). <i>International Journal of Extreme Manufacturing</i> , 2022, 4, 025201.	12.7	4
94	Study on air insulator strength under conductor galloping condition by phase to phase spacer. , 0, , .		3
95	Influence of air pressure on positive DC corona inception voltage of stranded conductors in the corona cage. , 2010, , .		3
96	Enhancement of Active Species Formation by $\text{TiO}_2$ Catalysis in the Bipolar Pulsed Discharge Plasma System. <i>IEEE Transactions on Plasma Science</i> , 2013, 41, 3268-3274.	1.3	3
97	A Comprehensive Numerical Model of Steady-State Negative Corona for Coaxial Cylindrical Electrode in Atmosphere Air. <i>IEEE Transactions on Plasma Science</i> , 2017, 45, 200-207.	1.3	3
98	Sparkover behavior of insulator under composite switching impulse/alternating or direct voltage. , 0, , .		2
99	Study on process of DC pollution flashover of porcelain insulators of parallel double-strings form at high altitude. , 2009, , .		2
100	Effect of pulsed electric fields on proanthocyanidins in young red wine. , 2009, , .		2
101	The Effect of Sphere Size on Bipolar Pulsed Discharges in Glass-Sphere/Water/Air Columns. <i>IEEE Transactions on Plasma Science</i> , 2010, 38, 100-105.	1.3	2
102	Effects of low pressure on DC pollution performance under different insulator profiles. , 2012, , .		2
103	Study on Series Printed-Circuit-Board Coil Matrix for Misalignment-Insensitive Wireless Charging. , 2019, , .		2
104	Study on the Material Used for On-site Insulation of Bare Overhead Conductors. , 2021, , .		2
105	A Terahertz 3-D Imaging Method for Complex Internal Structure of Object. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022, 71, 1-10.	4.7	2
106	Wetting characteristics of the hydrophobic material surface through condensation. <i>High Voltage</i> , 2023, 8, 31-37.	4.7	2
107	Influence of Shed Shape on Direct-Current Pollution Flashover Voltage and Pressure Decrease Exponent. <i>IEEE Access</i> , 2022, 10, 51804-51813.	4.2	2
108	Characteristics of Small-Molecule Migration of Silicone Rubber Insulator in Electrical Power Systems. <i>Polymers</i> , 2022, 14, 2519.	4.5	2

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109	Detection Method for Metal Impurities and Interlayer Moisture in Power Insulation Equipment by Terahertz Technology. , 2022, , .		2
110	Reducing ice coating on insulators by combining RTV with different volume resistivity. , 2009, , .		1
111	Influence of sugar in contaminant to outdoor insulation characteristics of glass insulator. , 2009, , .		1
112	Effect of surface aging on UV intensity characteristics for long-term energized conductors of HVDC transmission lines. , 2016, , .		1
113	Study on Formulation and Hydrophobicity of Polyurethane Filled with DC Post Insulators. , 2018, , .		1
114	A full hydrodynamic steady-state model of positive dc corona in coaxial cylindrical electrode. Physics of Plasmas, 2018, 25, 063526.	1.9	1
115	In-situ Monitoring of Electrolytic Corrosion on the Caps of HVDC Insulators. IEEE Sensors Journal, 2018, , 1-1.	4.7	1
116	Improved Current Sensor for Water Diffusion Testing of Composite Insulators. Sensors, 2019, 19, 778.	3.8	1
117	Research on the UAV Intelligent Inspection System to Monitor and Prevent Abnormal Heat of Composite Insulators for 500kV Transmission System. , 2019, , .		1
118	Flash Sintering of 8YSZ Ceramics under AC Fiel. , 2019, , .		1
119	Simulation Research on Suppression Measures Against Severe Ice-Shedding of Ultra-high Voltage Alternating Current Ultra-Long Span Transmission Lines. , 2021, , .		1
120	Time-domain virtual EMI receiver model algorithm for corona-originated electromagnetic interference of dc transmission line. IET Science, Measurement and Technology, 2018, 12, 603-608.	1.6	1
121	Health Monitoring of RTV Silicone Rubber Coating on Insulators Based on Multimode Features of Active Infrared Thermography. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	4.7	1
122	A Terahertz Identification Method for Internal Interface Structures of Polymers Based on the Long Short-Term Memory Classification Network. Polymers, 2022, 14, 2611.	4.5	1
123	Evaluation of Electrical Insulation Properties on Aged Composite Insulators in Heavily Contaminated Areas. , 0, , .		0
124	Study on stator winding degradation under bar vibration. , 2009, , .		0
125	Simulation and design of new microwae plasma source with slotted straight waveguides. , 2009, , .		0
126	The generation and characteristic study of large-volume microwave plasma produced with pallel rectangular waveguides. , 2010, , .		0



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127	Anti-icing performance of RTV coating with different resistivity on insulators. , 2010, , .		0
128	Effect of different curing parameters on UV aging resistance of silicone rubber. , 2018, , .		0
129	On the radiated EMI current extraction of dc transmission line based on corona current statistical measurements. AIP Advances, 2018, 8, 055001.	1.3	0
130	Temperature sensitivity of voltage-current characteristics for positive corona in coaxial cylindrical electrode. , 2018, , .		0
131	Eddy Current Thermography for the Detection of Conductive Defects in Composite Insulators. , 2020, , .		0
132	Aminiaturized device for detecting defects of porcelain insulators based on high-level impulse voltage breakdown. , 2021, , .		0
133	Research on the Ice Shedding of UHV Transmission Lines and its Prevention Measures. , 2021, , .		0
134	Comparison of RTV Coating Thickness Identified by Different Frequency Domain Thermal Characteristics. , 2021, , .		0
135	On the Potential Impacts of Extreme Low Temperature on Threshold Inception Characteristics of Negative Corona Discharge. IEEE Transactions on Plasma Science, 2020, 48, 4071-4079.	1.3	0
136	Research of Short Air Gap Flashover Characteristic with Water Droplets. , 2020, , .		0
137	Effect of decabromodiphenylethane on the thermo-oxidative ageing property of epoxy resin. , 2020, , .		0
138	Characteristics of Wind Swing of Carbon Fiber Composite Core Conductor Transmission Lines. , 2021, , .		0
139	Porcelain Bushing Internal Defects Intelligent Detection Based on Transient Thermography. , 2022, , .		0