

Chuanchuan Wang

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Two-Dimensional Equivalent Circuit Model of Ultrasonic Wireless Power Transmission. IEEE Transactions on Industrial Electronics, 2023, 70, 975-984.	7.9	4
2	A Novel Domain Adversarial Graph Convolutional Network for Insulation Defect Diagnosis in Gas-Insulated Substations. IEEE Transactions on Power Delivery, 2023, 38, 442-452.	4.3	4
3	Study on the influencing factors to reduce the recovery time of superconducting tapes and coils for the DC superconducting fault current limiter applications. High Voltage, 2022, 7, 483-495.	4.7	11
4	Flexible Fault Current Adaptation Features of a Novel DC Circuit Breaker Assisted by Superconducting Fault Current Limiters. IEEE Transactions on Power Delivery, 2022, 37, 2348-2358.	4.3	3
5	Design and Verification of an Ultra-High Voltage Multiple-Break Fast Vacuum Circuit Breaker. IEEE Transactions on Power Delivery, 2022, 37, 3436-3446.	4.3	2
6	Vacuum Switching Technology for Future of Power Systems. Engineering, 2022, 13, 164-177.	6.7	7
7	Few-Shot Transfer Learning With Attention Mechanism for High-Voltage Circuit Breaker Fault Diagnosis. IEEE Transactions on Industry Applications, 2022, 58, 3353-3360.	4.9	22
8	Design of Opening Velocity Characteristics for 2/3 Coil-Type Axial Magnetic-Field Contacts. IEEE Transactions on Plasma Science, 2022, 50, 920-929.	1.3	2
9	Gas-Insulated Switchgear Insulation Defect Diagnosis via a Novel Domain Adaptive Graph Convolutional Network. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	4.7	9
10	Effect of barrier thickness of Polytetrafluoroethylene on the Direct Current breakdown characteristics of liquid nitrogen. High Voltage, 2022, 7, 982-991.	4.7	2
11	Design and short-circuit current breaking test verification of a 72.5 kV single-break fast vacuum circuit breaker. IET Generation, Transmission and Distribution, 2022, 16, 2276-2286.	2.5	2
12	Novel DC current interruption technology based on the instability of vacuum arc under composite transverse magnetic fields. IET Generation, Transmission and Distribution, 2022, 16, 1364-1372.	2.5	5
13	A Power-Electronics Free Protection Device for Superconducting Electrical Propulsion Aircraft. IEEE Transactions on Transportation Electrification, 2022, 8, 4779-4788.	7.8	0
14	Optical Investigation of Excited Species Distribution in Low-Current Vacuum Discharges. IEEE Transactions on Plasma Science, 2022, 50, 2156-2165.	1.3	1
15	Lightening Impulse Breakdown of Vacuum Gaps in Series—Part I: Partial Breakdown. IEEE Transactions on Dielectrics and Electrical Insulation, 2022, 29, 1365-1372.	2.9	2
16	A Novel Superconducting Current Limiting Type SF ₆ Gas DC Circuit Breaker Assisted by Quenching Voltage. IEEE Transactions on Power Delivery, 2021, 36, 987-996.	4.3	5
17	Flashover characteristics of vacuum interrupters in liquid nitrogen and its comparison with air and transformer oil for the superconducting switchgear applications. International Journal of Electrical Power and Energy Systems, 2021, 125, 106504.	5.5	3
18	Decomposition Characteristics of SF ₆ under Arc Discharge and the Effects of Trace H ₂ O, O ₂ , and PTFE Vapour on Its By-Products. Energies, 2021, 14, 414.	3.1	7

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19	Applied Superconductivity and Electromagnetic Devices - Principles and Current Exploration Highlights. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-29.	1.7	8
20	Optimizing the Opening Velocity for a Vacuum Circuit Breaker With Cup-Type Axial Magnetic Field Contacts. IEEE Transactions on Plasma Science, 2021, 49, 1636-1647.	1.3	10
21	3D reconstruction of dynamic behaviors of vacuum arcs under transverse magnetic fields via computer tomography. Review of Scientific Instruments, 2021, 92, 063511.	1.3	6
22	A novel adversarial transfer learning in deep convolutional neural network for intelligent diagnosis of gas-insulated switchgear insulation defect. IET Generation, Transmission and Distribution, 2021, 15, 3229-3241.	2.5	18
23	Development and Testing of a 252 kV/2500 A-40 kA Multi-Break Bus-Coupler Fast Vacuum Circuit Breaker. Energies, 2021, 14, 4285.	3.1	2
24	Study on the mechanism of the effect of temperature on the decomposition reaction of SF ₆ under discharge conditions. Journal of Molecular Modeling, 2021, 27, 236.	1.8	1
25	Applications of A LN ₂ Switch Combining With the SFCL in the HTS Electrical Propulsion System. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-4.	1.7	1
26	Effect of Magnetic Fields on DC Interruption by Liquid Nitrogen in the HTS Electrical System. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-4.	1.7	3
27	Polarity Effect on Standard Lightning Impulse in LN ₂ /Insulation Barrier Composite Systems. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	1
28	AC Current Interruption Characteristics of Liquid Nitrogen. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	1
29	Controlled Fast Vacuum Breaking of an AC Short-Circuit Current in a Short-arcing Time. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	3
30	Effect of Arc Chute on DC Current Interruption by Liquid Nitrogen in HTS Electrical System of Distributed Propulsion Aircraft. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	7
31	Dependence of Short Circuit Breaking Current on its Minimum Arcing Times of a Fast Vacuum Circuit Breaker. , 2021, , .		1
32	The Impact of Particles on Post-arc breakdowns in Capacitive Interruptions. , 2021, , .		0
33	Vacuum Arc Evolution Characteristics in Low-Voltage DC Current Interruption Under Composite Transverse Magnetic Fields. IEEE Transactions on Plasma Science, 2021, 49, 3927-3934.	1.3	4
34	Optimum Design of a Novel 40.5kV Three-poles in Common Fast Vacuum Circuit Breaker. , 2021, , .		0
35	An improved deep learning-based algorithm for 3D reconstruction of vacuum arcs. Review of Scientific Instruments, 2021, 92, 123509.	1.3	4
36	Low-Voltage Electric Arc Reconstruction From Magnetic Field Measurements. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 3750-3760.	4.7	3

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37	Short-circuit fault current-limiting characteristics of a resistive-type superconducting fault current limiter in DC grids. Superconductor Science and Technology, 2020, 33, 024005.	3.5	42
38	Gate Failure Physics of SiC MOSFETs Under Short-Circuit Stress. IEEE Electron Device Letters, 2020, 41, 103-106.	3.9	60
39	A CO ₂ /O ₂ Mixed Gas DC Circuit Breaker With Superconducting Fault Current-Limiting Technology. IEEE Transactions on Power Delivery, 2020, 35, 1960-1967.	4.3	31
40	Theoretical study of the chemical reaction mechanism and rate of SF _n + H ₂ O (n = 3-6) under discharge. AIP Advances, 2020, 10, 095214.	1.3	1
41	Two-Dimensional Observation of Copper Atoms After Forced Extinction of Vacuum Arcs by Laser-Induced Fluorescence. IEEE Transactions on Plasma Science, 2020, 48, 2777-2789.	1.3	9
42	Barrier position effect on bubble triggered DC breakdown characteristics in liquid nitrogen. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 1636-1643.	2.9	3
43	SF ₆ passive resonance DC circuit breaker combined with a superconducting fault current limiter. IET Generation, Transmission and Distribution, 2020, 14, 2869-2878.	2.5	6
44	Influence Mechanism of Cathode Materials on the Transition Process of Arc Modes in Drawn Vacuum Arcs Under External AMF. IEEE Transactions on Plasma Science, 2020, 48, 2837-2845.	1.3	0
45	Effect of a PTFE film on bubble triggered DC breakdown characteristics in liquid nitrogen. Journal of Physics: Conference Series, 2020, 1559, 012092.	0.4	2
46	Vacuum arc transient behaviors and voltage characteristics in low-current DC interruption under rotating TMF. AIP Advances, 2020, 10, 085123.	1.3	5
47	Multiple failure mode identification of SiC planar MOSFETs in short-circuit operation. Microelectronics Reliability, 2020, 114, 113804.	1.7	8
48	Barrier Effect on the DC Breakdown Characteristics of Cryogenic Nitrogen Gas Evaporated From Liquid Nitrogen. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-8.	1.7	4
49	Study on the Parameter Requirements for Resistive-Type Superconducting Fault Current Limiters Combined With Mechanical DC Circuit Breakers in Hybrid AC/DC Transmission Grids. IEEE Transactions on Power Delivery, 2020, 35, 2865-2875.	4.3	27
50	3D hybrid modelling of the extinction of multiple cathode spots in vacuum. Journal Physics D: Applied Physics, 2020, 53, 405202.	2.8	8
51	Dynamic Arc Current Distribution of Parallel Vacuum Arcs Subjected to Bipolar Axial Magnetic Field. IEEE Access, 2020, 8, 58290-58299.	4.2	1
52	Protection schemes using resistive-type superconducting fault current limiters with mechanical DC circuit breakers in MMC-MTDC grids. IET Generation, Transmission and Distribution, 2020, 14, 3422-3432.	2.5	16
53	Heat Loss Calculation of a Liquid Nitrogen Switch in the HTS Electrical System of Distributed Propulsion Aircrafts. , 2020, , .		0
54	AC Current Interruption by Liquid Nitrogen in a Superconducting Fault Current Limiting Switchgear. , 2020, , .		2

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55	DC Surface Flashover Characteristics of Insulation Film in LN2 and Bubbles Composite. , 2020, , .		1
56	Research and Verification of Opening Characteristics of a Modular 72.5 kV Fast Vacuum Circuit Breaker. , 2020, , .		1
57	Technology of AC Short-Circuit Current Controlled Fast Vacuum Breaking in a Short Arcing Time. , 2020, , .		4
58	Transformation Characteristics of High-Current Vacuum Arcs With Still-Spaced Contacts Under TMF&€“AMF Combined Magnetic Fields. IEEE Transactions on Plasma Science, 2019, 47, 3540-3548.	1.3	4
59	Experimental Determination of the Current Constriction Characteristics at the Anode of AMF Vacuum Arcs. IEEE Transactions on Plasma Science, 2019, 47, 4361-4369.	1.3	0
60	A Lipschitz Optimization-Based MPPT Algorithm for Photovoltaic System Under Partial Shading Condition. IEEE Access, 2019, 7, 126323-126333.	4.2	33
61	Effects of Magnetic Fields on Quench Characteristics of Superconducting Tape for Superconducting Fault Current Limiter. Applied Sciences (Switzerland), 2019, 9, 1466.	2.5	3
62	Effect of six pure metals cathode on constricted characteristics of high-current vacuum arcs subject to axial magnetic field. Journal Physics D: Applied Physics, 2019, 52, 265201.	2.8	4
63	Experimental Test of Superconductor Fault-Current Switchgear Using Liquid Nitrogen as the Insulation and Arc-Quenching Medium. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-4.	1.7	13
64	Influence of Oscillating Frequency of External Transverse Magnetic Field on DC Vacuum Arc Evolution. , 2019, , .		3
65	Development and Test of a 252 kV Multi-breaks Bus-tie Fast Vacuum Circuit Breaker. , 2019, , .		4
66	Barrier Effect on the DC Breakdown Characteristics of Cryogenic Nitrogen Gas for the Designing of the Superconducting Fault Current Limiter. , 2019, , .		1
67	Effects of Current Limiting Characteristics of Resistive Type Superconducting Fault Current Limiter on Flexible DC Transmission System of Offshore Oil Production Platform. , 2019, , .		2
68	Arc Conductance and Contact Erosion in Liquid Nitrogen under DC Current Interruption. , 2019, , .		0
69	Influence of Opening Velocity on Arcing Time Windows of Fast Vacuum Circuit Breaker in Duties of Terminal Fault Test T100s. , 2019, , .		4
70	Theoretical study of the chemical reaction mechanisms and reaction rates of CFx&€“+&€“SFy (where x&€“=â&€“1&€“3) tj ETQq0 2.5		3
71	A Self-Charging Artificial Current Zero DC Circuit Breaker Based on Superconducting Fault Current Limiter. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	10
72	Effects of Short Circuit Currents on Quench and Recovery Properties of YBCO Tapes for DC SFCL. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-6.	1.7	22

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73	Influencing Factors on Quench and Recovery of YBCO Tapes for DC Superconducting Fault Current Limiter. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-6.	1.7	17
74	Direct Current Arc Investigations in Liquid Nitrogen Using Asymmetrical Electrodes. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-6.	1.7	4
75	<i>In situ</i> Condition Monitoring of IGBTs Based on the Miller Plateau Duration. IEEE Transactions on Power Electronics, 2019, 34, 769-782.	7.9	61
76	Cathode-constriction and column-constriction in high current vacuum arcs subjected to an axial magnetic field. Journal Physics D: Applied Physics, 2018, 51, 145203.	2.8	7
77	Adaptive integral sliding mode direct power control for VSC-MVDC system converter stations. International Transactions on Electrical Energy Systems, 2018, 28, e2516.	1.9	10
78	DC Interrupting With Self-Excited Oscillation Based on the Superconducting Current-Limiting Technology. IEEE Transactions on Power Delivery, 2018, 33, 529-536.	4.3	32
79	An Optimum Design for a DC-Based DFIG System by Regulating Gearbox Ratio. IEEE Transactions on Energy Conversion, 2018, 33, 223-231.	5.2	21
80	Optical absorption spectroscopy of metallic (Cr) vapor in a vacuum arc. Journal Physics D: Applied Physics, 2018, 51, 035203.	2.8	18
81	Direct-Current Vacuum Circuit Breaker With Superconducting Fault-Current Limiter. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-8.	1.7	22
82	PIDR Sliding Mode Current Control with Online Inductance Estimator for VSC-MVDC System Converter Stations under Unbalanced Grid Voltage Conditions. Energies, 2018, 11, 2599.	3.1	2
83	Investigation of Vacuum Arc Extinction Process by Planar Laser-Induced Fluorescence. , 2018, , .		0
84	Arc Energy Evaluation in Liquid Nitrogen. , 2018, , .		1
85	Arcing Time Analysis of Liquid Nitrogen in Asymmetrical Electrodes. , 2018, , .		2
86	Research on DC Current Interruption Technology by Vacuum Arcs Subjected to Adjustable Rotating Transverse Magnetic Field. , 2018, , .		4
87	Investigation on the DC CB Performance During a Current Interruption Failure at First Current Zero. , 2018, , .		2
88	Prestrike Inrush Current Arc Behaviors in Vacuum Interrupters Subjected to a Transverse Magnetic Field and an Axial Magnetic Field. IEEE Transactions on Plasma Science, 2018, 46, 3075-3082.	1.3	11
89	Current Distribution Reconstruction in Low-Voltage Circuit Breakers Based on Magnetic Inverse Problem Solution Considering Ferromagnetic Splitters. IEEE Transactions on Magnetics, 2018, 54, 1-9.	2.1	5
90	High speed magneto-optical imaging system to investigate motion characteristics of arc plasma in enclosed chamber. Optics Express, 2018, 26, 23156.	3.4	4

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91	Arcing Contact Gap of a 126-kV Horseshoe-Type Bipolar Axial Magnetic Field Vacuum Interrupters. IEEE Transactions on Plasma Science, 2018, 46, 3713-3721.	1.3	7
92	A Relationship Between Minimum Arcing Interrupting Capability and Opening Velocity of Vacuum Interrupters in Short-Circuit Current Interruption. IEEE Transactions on Power Delivery, 2018, 33, 2822-2828.	4.3	30
93	Inverse Problem Solution and Regularization Parameter Selection for Current Distribution Reconstruction in Switching Arcs by Inverting Magnetic Fields. Mathematical Problems in Engineering, 2018, 2018, 1-11.	1.1	5
94	Influence of Magnetic Measurement Modeling on the Solution of Magnetostatic Inverse Problems Applied to Current Distribution Reconstruction in Switching Air Arcs. IEEE Transactions on Magnetics, 2018, 54, 1-4.	2.1	11
95	Rotation Characteristics of Vacuum Arcs Driven by Transverse Magnetic Fields. IEEE Transactions on Plasma Science, 2018, 46, 2181-2190.	1.3	5
96	DC-Current-Limiting Characteristics of YBCO Tapes for DC Currents of 50 A to 10 kA. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	20
97	Inrush Current Prestrike Arc Behaviours of Contact Materials CuCr50/50 and CuW10/90. IEEE Transactions on Plasma Science, 2017, 45, 266-274.	1.3	16
98	Optimized and coordinated model predictive control scheme for DFIGs with DC-based converter system. Journal of Modern Power Systems and Clean Energy, 2017, 5, 620-630.	5.4	33
99	High-Current Vacuum Arc Mode Transition of a Horseshoe-Type Axial Magnetic Field Contact With Long Contact Gap. IEEE Transactions on Plasma Science, 2017, 45, 2164-2171.	1.3	16
100	Anode Spot Threshold Current of Four Pure Metals Subjected to Uniform Axial Magnetic Field in High Current Vacuum Arcs. IEEE Transactions on Plasma Science, 2017, 45, 2135-2143.	1.3	6
101	Transient stability enhancement of DC-connected DFIG and its converter system using fault protective device. Journal of Modern Power Systems and Clean Energy, 2017, 5, 887-896.	5.4	11
102	Arcing time analysis of liquid nitrogen with respect to electrodes geometry. , 2017, , .		5
103	Control scheme for DFIG converter system based on DC transmission. IET Electric Power Applications, 2017, 11, 1441-1448.	1.8	22
104	Integral Plus Resonant Sliding Mode Direct Power Control for VSC-HVDC Systems under Unbalanced Grid Voltage Conditions. Energies, 2017, 10, 1528.	3.1	4
105	DC current interruption of CO ₂ and SF ₆ based on self-excited oscillation under transverse magnetic field. , 2017, , .		2
106	Integral sliding mode current control for three phase voltage source rectifier under unbalanced input voltage conditions. , 2017, , .		2
107	Opening velocity characteristics for vacuum interrupters with cup-type axial magnetic field contacts. , 2016, , .		4
108	Arcing Time of a DC Circuit Breaker Based on a Superconducting Current-Limiting Technology. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	19

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109	Design of a Pancake-Type Superconducting Tape Winding According to Heat Diffusion Ability. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	6
110	Vacuum arcing behavior between transverse magnetic field contacts subjected to variable axial magnetic field. Physics of Plasmas, 2016, 23, .	1.9	14
111	Modelling of crater formation on anode surface by high-current vacuum arcs. Journal of Applied Physics, 2016, 120, .	2.5	15
112	Determination of opening velocities for vacuum circuit breakers at transmission voltage. , 2016, , .		7
113	Repulsion Mechanism Applied in Resistive-Type Superconducting Fault Current Limiter. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-9.	1.7	15
114	Comparative study on radial topology 10kV AC and ± 10 kV DC power distribution network. , 2016, , .		7
115	Conceptual Design of a Liquid-Nitrogen-Insulated Metal-Enclosed Switchgear. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	12
116	Effect of an axial magnetic field and arc current on the anode current density in diffuse vacuum arcs. Physics of Plasmas, 2016, 23, 093507.	1.9	7
117	Quenched Resistance Effects on a Superconducting Current-Limiting-Type DC Breaker. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	9
118	Asymmetrical AC field emission current characteristics of vacuum interrupters subjected to inrush current. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 49-57.	2.9	16
119	Influence of High-Frequency High-Voltage Impulse Conditioning on Back-to-Back Capacitor Bank Switching Performance of Vacuum Interrupters. IEEE Transactions on Plasma Science, 2016, 44, 321-330.	1.3	22
120	Development and Type Test of a Single-Break 126-kV/40-kA \leq 2500-A Vacuum Circuit Breaker. IEEE Transactions on Power Delivery, 2016, 31, 182-190.	4.3	27
121	Anode Erosion Pattern Caused by Blowing Effect in Constricted Vacuum Arcs Subjected to Axial Magnetic Field. IEEE Transactions on Plasma Science, 2015, 43, 2329-2334.	1.3	6
122	Anode Current Density Distribution Measurements for Different Vacuum Arc Modes Subjected to Axial Magnetic Field. IEEE Transactions on Plasma Science, 2015, 43, 2335-2344.	1.3	23
123	Study on the novel power optimizer based on SST. , 2015, , .		0
124	Anode mode diagram: A determination of opening displacement curve for a 126kV vacuum circuit breaker. , 2014, , .		2
125	A novel converter system for DFIG based on DC transmission. , 2014, , .		12
126	Decay Modes of Anode Surface Temperature After Current Zero in Vacuum Arcs-Part I: Experimental Study. IEEE Transactions on Plasma Science, 2014, 42, 1464-1473.	1.3	29

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127	Estimation of Critical Axial Magnetic Field to Prevent Anode Spots in Vacuum Interrupters. IEEE Transactions on Plasma Science, 2014, 42, 2277-2283.	1.3	34
128	An Opening Displacement Curve Characteristic Determined by High-Current Anode Phenomena of a Vacuum Interrupter. IEEE Transactions on Power Delivery, 2013, 28, 2585-2593.	4.3	31
129	Contacts impact phenomena in a 126 kV vacuum circuit breaker. , 2012, , .		6
130	A novel direct power control strategy of double hysteresis and multiple switching tables for rectifiers. , 2011, , .		3
131	A novel fuzzy-based and voltage-oriented direct power control strategy for rectifier. , 2011, , .		5
132	A Method for Residential Series Arc Fault Detection and Identification. , 2009, , .		11