Yi-Yi Zhang

List of Publications by Year
in descending order

126	2,420	186265	254184
papers	citations	28 h-index	43 g-index

128	128	128	1645
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimal dissolved gas ratios selected by genetic algorithm for power transformer fault diagnosis based on support vector machine. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 1198-1206.	2.9	169
2	An Integrated Decision-Making Model for Condition Assessment of Power Transformers Using Fuzzy Approach and Evidential Reasoning. IEEE Transactions on Power Delivery, 2011, 26, 1111-1118.	4.3	129
3	Carbon emissions and their drivers for a typical urban economy from multiple perspectives: A case analysis for Beijing city. Applied Energy, 2018, 226, 1076-1086.	10.1	125
4	A novel model based on wavelet LS-SVM integrated improved PSO algorithm for forecasting of dissolved gas contents in power transformers. Electric Power Systems Research, 2018, 155, 196-205.	3.6	104
5	Fabrication and anti-icing property of coral-like superhydrophobic aluminum surface. Applied Surface Science, 2015, 331, 132-139.	6.1	92
6	A Fault Diagnosis Model of Power Transformers Based on Dissolved Gas Analysis Features Selection and Improved Krill Herd Algorithm Optimized Support Vector Machine. IEEE Access, 2019, 7, 102803-102811.	4.2	66
7	Driving forces and clustering analysis of provincial-level CO2 emissions from the power sector in China from 2005 to 2015. Journal of Cleaner Production, 2019, 240, 118026.	9.3	58
8	Effect of oil replacement on furfural analysis and aging assessment of power transformers. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 2611-2619.	2.9	54
9	Temperature correction to dielectric modulus and activation energy prediction of oil-immersed cellulose insulation. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 956-963.	2.9	53
10	Grey Relational Analysis for Insulation Condition Assessment of Power Transformers Based Upon Conventional Dielectric Response Measurement. Energies, 2017, 10, 1526.	3.1	43
11	Effects of temperature and aging on furfural partitioning in the oil-paper system of power transformers. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 1393-1401.	2.9	40
12	Quantitative evaluation for moisture content of cellulose insulation material in paper/oil system based on frequency dielectric modulus technique. Cellulose, 2020, 27, 2343-2356.	4.9	39
13	Ice accretion on superhydrophobic insulators under freezing condition. Cold Regions Science and Technology, 2015, 112, 87-94.	3.5	38
14	Driving forces of provincial-level CO2 emissions in Chinaâ€™s power sector based on LMDI method. Energy Procedia, 2019, 158, 3859-3864.	1.8	38
15	Energy-water nexus in electricity trade network: A case study of interprovincial electricity trade in China. Applied Energy, 2020, 257, 113685.	10.1	38
16	A Novel Maintenance Decision Making Model of Power Transformers Based on Reliability and Economy Assessment. IEEE Access, 2019, 7, 28778-28790.	4.2	37
17	Condition prediction for oil-immersed cellulose insulation in field transformer using fitting fingerprint database. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 279-287.	2.9	37
18	Moisture Diagnosis of Transformer Oil-Immersed Insulation With Intelligent Technique and Frequency-Domain Spectroscopy. IEEE Transactions on Industrial Informatics, 2021, 17, 4624-4634.	11.3	36

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19	The Insulation Properties of Oil-Impregnated Insulation Paper Reinforced with Nano-TiO₂. Journal of Nanomaterials, 2013, 2013, 1-7.	2.7	35
20	Chaos Firefly Algorithm With Self-Adaptation Mutation Mechanism for Solving Large-Scale Economic Dispatch With Valve-Point Effects and Multiple Fuel Options. IEEE Access, 2018, 6, 45907-45922.	4.2	35
21	A New Support Vector Machine Model Based on Improved Imperialist Competitive Algorithm for Fault Diagnosis of Oil-immersed Transformers. Journal of Electrical Engineering and Technology, 2017, 12, 830-839.	2.0	35
22	InsuDet: A Fault Detection Method for Insulators of Overhead Transmission Lines Using Convolutional Neural Networks. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-12.	4.7	34
23	An anomaly identification model for wind turbine state parameters. Journal of Cleaner Production, 2018, 195, 1214-1227.	9.3	33
24	Analysis on the Temperature Field and the Ampacity of XLPE Submarine HV Cable Based on Electro-Thermal-Flow Multiphysics Coupling Simulation. Polymers, 2020, 12, 952.	4.5	33
25	Optimization of Chinaâ€™s electric power sector targeting water stress and carbon emissions. Applied Energy, 2020, 271, 115221.	10.1	31
26	Improving recognition accuracy of partial discharge patterns by image-oriented feature extraction and selection technique. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 1076-1087.	2.9	30
27	Microscopic reaction mechanism of the production of methanol during the thermal aging of cellulosic insulating paper. Cellulose, 2020, 27, 2455-2467.	4.9	30
28	A Transformer Fault Diagnosis Model Using an Optimal Hybrid Dissolved Gas Analysis Features Subset with Improved Social Group Optimization-Support Vector Machine Classifier. Energies, 2018, 11, 1922.	3.1	29
29	Fuzzy information granulated particle swarm optimisation-support vector machine regression for the trend forecasting of dissolved gases in oil-filled transformers. IET Electric Power Applications, 2011, 5, 230.	1.8	28
30	Understanding and analysis on frequency dielectric parameter for quantitative diagnosis of moisture content in paperâ€“oil insulation system. IET Electric Power Applications, 2015, 9, 213-222.	1.8	28
31	Identifying hotspots of sectors and supply chain paths for electricity conservation in China. Journal of Cleaner Production, 2020, 251, 119653.	9.3	27
32	Aging evaluation and moisture prediction of oil-immersed cellulose insulation in field transformer using frequency domain spectroscopy and aging kinetics model. Cellulose, 2020, 27, 7175-7189.	4.9	27
33	Study on Quantitative Correlations between the Ageing Condition of Transformer Cellulose Insulation and the Large Time Constant Obtained from the Extended Debye Model. Energies, 2017, 10, 1842.	3.1	25
34	FDS Measurement-Based Moisture Estimation Model for Transformer Oil-Paper Insulation Including the Aging Effect. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	4.7	25
35	Dissolved Gases Forecasting Based on Wavelet Least Squares Support Vector Regression and Imperialist Competition Algorithm for Assessing Incipient Faults of Transformer Polymer Insulation. Polymers, 2019, 11, 85.	4.5	24
36	Feasibility of a universal approach for temperature correction in frequency domain spectroscopy of transformer insulation. IEEE Transactions on Dielectrics and Electrical Insulation, 2018, 25, 1766-1773.	2.9	22

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37	Adaptive Virtual Impedance Droop Control Based on Consensus Control of Reactive Current. Energies, 2018, 11, 1801.	3.1	21
38	Aging Assessment Model of Transformer Insulation Based on Furfural Indicator under Different Oil/Pressboard Ratios and Oil Change. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1061-1069.	2.9	21
39	Frequency Domain Spectroscopy Prediction of Oil-Immersed Cellulose Insulation under Diverse Temperature and Moisture. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 1820-1828.	2.9	20
40	Condition Evaluation for Aging State of Transformer Oil-paper Insulation Based on Time-frequency Domain Dielectric Characteristics. Electric Power Components and Systems, 2015, 43, 759-769.	1.8	19
41	A Dynamic Adam Based Deep Neural Network for Fault Diagnosis of Oil-Immersed Power Transformers. Energies, 2019, 12, 995.	3.1	19
42	Aging evaluation for transformer oil-immersed cellulose insulation by using frequency dependent dielectric modulus technique. Cellulose, 2021, 28, 2387-2401.	4.9	19
43	Power system load forecasting using mobility optimization and multi-task learning in COVID-19. Applied Energy, 2022, 310, 118303.	10.1	17
44	Tracking flows and network dynamics of virtual water in electricity transmission across China. Renewable and Sustainable Energy Reviews, 2021, 137, 110475.	16.4	16
45	Analysis of lowâ€frequency polarisation behaviour for oilâ€paper insulation using logarithmicâ€derivative spectroscopy. High Voltage, 2021, 6, 460-469.	4.7	16
46	Acquisition of FDS for Oil-Immersed Insulation at Transformer Hotspot Region Based on Multiconstraint NSGA Model. IEEE Transactions on Industrial Electronics, 2022, 69, 13625-13635.	7.9	15
47	Space Charge Behavior in Oil-Impregnated Insulation Paper Reinforced with Nano-TiO2. BioResources, 2013, 8, .	1.0	14
48	Effectiveness Analysis and Temperature Effect Mechanism on Chemical and Electrical-Based Transformer Insulation Diagnostic Parameters Obtained from PDC Data. Energies, 2018, 11, 146.	3.1	14
49	A Novel Universal Approach for Temperature Correction on Frequency Domain Spectroscopy Curve of Transformer Polymer Insulation. Polymers, 2019, 11, 1126.	4.5	14
50	A modified X-model of the oil-impregnated bushing including non-uniform thermal aging of cellulose insulation. Cellulose, 2020, 27, 4525-4538.	4.9	14
51	A Modified Simulation Model for Predicting the FDS of Transformer Oil-Paper Insulation Under Nonuniform Aging. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	4.7	14
52	Multi-objective optimization of energy-water nexus from spatial resource reallocation perspective in China. Applied Energy, 2022, 314, 118919.	10.1	14
53	A Novel Fault Diagnosis System on Polymer Insulation of Power Transformers Based on 3-stage GAâ€“SAâ€“SVM OFC Selection and ABCâ€“SVM Classifier. Polymers, 2018, 10, 1096.	4.5	13
54	The impacts of interprovincial electricity transmission on Chinaâ€™s water crisis: Mitigate or aggravate. Journal of Cleaner Production, 2020, 266, 121696.	9.3	13

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55	Extraction of Frequency Domain Dielectric Characteristic Parameter of Oil-paper Insulation for Transformer Condition Assessment. Electric Power Components and Systems, 2015, 43, 578-587.	1.8	12
56	Trade reshapes the regional energy related mercury emissions: A case study on Hubei Province based on a multi-scale input-output analysis. Journal of Cleaner Production, 2018, 185, 75-85.	9.3	12
57	A Weekend Load Forecasting Model Based on Semi-Parametric Regression Analysis Considering Weather and Load Interaction. Energies, 2019, 12, 3820.	3.1	12
58	Moisture Prediction of Transformer Oil-Immersed Polymer Insulation by Applying a Support Vector Machine Combined with a Genetic Algorithm. Polymers, 2020, 12, 1579.	4.5	12
59	A Molecular Dynamics Study of the Generation of Ethanol for Insulating Paper Pyrolysis. Energies, 2020, 13, 265.	3.1	12
60	A cost-effectiveness assessment model using grey correlation analysis for power transformer selection based on life cycle cost. Kybernetes, 2014, 43, 5-23.	2.2	11
61	A cloud and evidential reasoning integrated model for insulation condition assessment of high voltage transformers. International Transactions on Electrical Energy Systems, 2014, 24, 913-926.	1.9	11
62	Comparative Investigation on the Performance of Modified System Poles and Traditional System Poles Obtained from PDC Data for Diagnosing the Ageing Condition of Transformer Polymer Insulation Materials. Polymers, 2018, 10, 191.	4.5	11
63	A Modified Aging Kinetics Model for Aging Condition Prediction of Transformer Polymer Insulation by Employing the Frequency Domain Spectroscopy. Polymers, 2019, 11, 2082.	4.5	11
64	Optimization of Ethanol Detection by Automatic Headspace Method for Cellulose Insulation Aging of Oil-immersed Transformers. Polymers, 2020, 12, 1567.	4.5	11
65	Bi-Level Optimal Strategy of Islanded Multi-Microgrid Systems Based on Optimal Power Flow and Consensus Algorithm. Energies, 2020, 13, 1537.	3.1	11
66	Lifespan Model of the Relationships between Ethanol Indicator and Degree of Polymerization of Transformer Paper Insulation. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1859-1866.	2.9	11
67	Independent Effects of Aged Oil and Aged Paper on Moisture Evaluation of Power Transformers. Electric Power Components and Systems, 2016, 44, 556-564.	1.8	10
68	Assessment of Thermal Aging Degree of 10kV Cross-Linked Polyethylene Cable Based on Depolarization Current. IEEE Access, 2021, 9, 111020-111029.	4.2	10
69	A modified XY model of transformer oilâ€“paper insulation system including nonâ€uniform aging and conductance effect. IET Generation, Transmission and Distribution, 2021, 15, 2008-2017.	2.5	10
70	Economic life assessment of power transformers using an improved model. CSEE Journal of Power and Energy Systems, 2015, 1, 68-75.	1.1	9
71	Investigation of characteristic parameters for condition evaluation of transformer oil-paper insulation using frequency domain spectroscopy. International Transactions on Electrical Energy Systems, 2015, 25, 2921-2932.	1.9	9
72	Large-scale OPF based on voltage grading and network partition. CSEE Journal of Power and Energy Systems, 2016, 2, 56-61.	1.1	9

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73	An Integrated Model for Transformer Fault Diagnosis to Improve Sample Classification near Decision Boundary of Support Vector Machine. Energies, 2020, 13, 6678.	3.1	9
74	Polarization loss analysis and ageing characterisation of transformer oilâ€immersed insulation by using decoupled frequency domain spectroscopy. High Voltage, 2022, 7, 575-585.	4.7	9
75	Diffusion Mechanism of Furfural in Transformer Oilâ€“Paper Insulation Under Moisture Effect. IEEE Transactions on Dielectrics and Electrical Insulation, 2022, 29, 485-492.	2.9	9
76	Risk Assessment for the Power Grid Dispatching Process Considering the Impact of Cyber Systems. Energies, 2019, 12, 1084.	3.1	8
77	Risk Assessment of Cyber Attacks on Power Grids Considering the Characteristics of Attack Behaviors. IEEE Access, 2020, 8, 148331-148344.	4.2	8
78	Investigation on Diffusion Mechanisms of Methanol in Paper/Oil Insulation Based on Molecular Dynamics Simulation. IEEE Access, 2021, 9, 13368-13377.	4.2	8
79	A Prediction Model of Hot Spot Temperature for Split-Windings Traction Transformer Considering the Load Characteristics. IEEE Access, 2021, 9, 22605-22615.	4.2	8
80	Optimization of electricity generation pattern in China from perspective of water scarcity. Energy Procedia, 2019, 158, 3872-3877.	1.8	7
81	Highâ€voltage frequency domain spectroscopy analysis of a thermally aged XLPE submarine cable under continuous and cyclic voltage based on carrier transport and polarisation characteristics. High Voltage, 0, , .	4.7	7
82	A BPNN Model-Based AdaBoost Algorithm for Estimating Inside Moisture of Oilâ€“Paper Insulation of Power Transformer. IEEE Transactions on Dielectrics and Electrical Insulation, 2022, 29, 614-622.	2.9	7
83	Reduction Mechanism of Alcohols Contents Caused by Acids During Oil-Paper Insulation Aging. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1867-1874.	2.9	7
84	Influence of Oilâ€“Pressboard Mass Ratio on the Equilibrium Characteristics of Furfural under Oil Replacement Conditions. Polymers, 2020, 12, 2760.	4.5	6
85	Evolution of Virtual Water Transfers in Chinaâ€™s Provincial Grids and Its Driving Analysis. Energies, 2020, 13, 328.	3.1	6
86	Investigation on Formation Mechanisms of Methanol During Cellulose Insulation Aging Based on Molecular Dynamics Simulation. IEEE Access, 2021, 9, 6890-6898.	4.2	6
87	Evolution of interprovincial virtual water flows along with electricity transmission and its impact on water scarcity in China. Journal of Cleaner Production, 2021, 322, 128957.	9.3	6
88	Effect of Partial Oil Change on Furfural Partitioning in Oil-Paper-Pressboard Insulation System. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1612-1619.	2.9	6
89	Study on Space Charge Characteristics of Transformer Insulating Paper Under Different Working Conditions. IEEE Transactions on Plasma Science, 2022, 50, 731-739.	1.3	6
90	Concentration Prediction of Polymer Insulation Aging Indicator-Alcohols in Oil Based on Genetic Algorithm-Optimized Support Vector Machines. Polymers, 2022, 14, 1449.	4.5	6

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91	A Novel Curve Database for Moisture Evaluation of Transformer Oil-Immersed Cellulose Insulation Using FDS and Exponential Decay Model. IEEE Access, 2020, 8, 180728-180737.	4.2	5
92	Normalization for FDS of Transformer Insulation Considering the Synergistic Effect Generated by Temperature and Moisture. IEEE Access, 2020, 8, 202013-202021.	4.2	5
93	Electric Arc Recoilâ€“A Novel Method for Reducing Lightning Strike Potential Difference for Transmission Line. IEEE Access, 2021, 9, 79663-79670.	4.2	5
94	Investigation on Dynamic Diffusion Behavior of Furfural in Oil-Pressboard Insulation under Partial Oil Replacement Condition. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1044-1052.	2.9	5
95	The electricity-water nexus in Chinese electric trade system. Energy Procedia, 2018, 152, 247-252.	1.8	4
96	Microscopic Mechanism of Cellulose Bond Breaking and Bonding Based on Molecular Dynamics Simulation. IEEE Access, 2019, 7, 186193-186200.	4.2	4
97	Correction for Polarization Current Curve of Polymer Insulation Materials in Transformers Considering the Temperature and Moisture Effects. Polymers, 2020, 12, 143.	4.5	4
98	The impacts of interprovincial agricultural trade on water resources in China: from perspective of grey water footprint. Energy Procedia, 2018, 152, 253-258.	1.8	3
99	Numerical Studies on the Performance of the PCM Mesh-Finned Heat Sink Base on Thermal-Flow Multiphysics Coupling Simulation. Energies, 2020, 13, 4658.	3.1	3
100	Description of space charge transport in oilâ€paper insulation using adaptive timeâ€stepping transient upstream finite elementÂmethod. High Voltage, 2022, 7, 75-85.	4.7	3
101	Effect of multiâ€factors on heterocharges for oilâ€impregnated paper in converter transformer using modified charge transport model. IET Generation, Transmission and Distribution, 2021, 15, 3048-3057.	2.5	3
102	Investigation on Oil-paper Degradation Subjected to Partial Discharge Using Chaos Theory. Journal of Electrical Engineering and Technology, 2014, 9, 1686-1693.	2.0	3
103	Effects of Temperature Gradient Induced Aging and Moisture Distribution on Dielectric Response Measurement for Transformer Insulation. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	4.7	3
104	Aging Analysis of Transformer Insulation at Weakest Region: Dielectric Parameters Extraction via Immune Optimization. IEEE Transactions on Transportation Electrification, 2023, 9, 1579-1589.	7.8	3
105	An improved secondâ€order kinetic model for degradation analysis of transformer paper insulation under nonâ€uniform thermal field. High Voltage, 2023, 8, 81-90.	4.7	3
106	A life cycle cost-effectiveness assessment model for power transformer selection based on grey correlation analysis. , 2014, , .		2
107	Multi-fault diagnosis method for insulation condition of power transformer based upon cloud model. , 2015, , .		2
108	Applications of Fuzzy Multicriteria Decision Making to Complex Engineering Problems. Advances in Fuzzy Systems, 2018, 2018, 1-3.	0.9	2

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109	Transformer fault diagnosis based on new features selection and artificial bee colony optimization SVM. , 2018, , .		2
110	Optimization of Flue Gas Desulphurization Technologies Based on Cloud Model and Kernel Vector Space Model. IEEE Access, 2019, 7, 90834-90841.	4.2	2
111	Prediction of Moisture and Aging Conditions of Oil-Immersed Cellulose Insulation Based on Fingerprints Database of Dielectric Modulus. Polymers, 2020, 12, 1722.	4.5	2
112	A Developed Vehicle Terminal of Time-Sharing Rental Electric Vehicle Using Acoustic Communication Technology. Applied Sciences (Switzerland), 2019, 9, 5408.	2.5	2
113	A new maintenance decision making model based on life cycle cost analysis for power transformers. , 2016, , .		1
114	The 3D Ït-n-q Analysis of Partial Discharge Detection in Low Pressure Conditions. , 2019, , .		1
115	Performance Assessment of Oil-Immersed Cellulose Insulator Materials Using Timeâ€“Domain Spectroscopy under Varying Temperature and Humidity Conditions. Energies, 2020, 13, 4426.	3.1	1
116	Modified furfural-DP equation with different oil-paper-pressboard mass ratios under oil replacement condition. International Journal of Electrical Power and Energy Systems, 2021, 131, 106924.	5.5	1
117	Condition Evaluation of Transformer Oil-immersed Insulation by Applying Genetic Algorithm Support Vector Machine. , 2020, , .		1
118	Forecasting of Dissolved Gases in Power Transformer Oil Based on DOG -LSSVM Regression and Artificial Bee Colony. , 2018, , .		0
119	State evaluation of transformer paper insulation based upon dielectric response characteristic parameters. , 2019, , .		0
120	FDS Prediction of Transformer Oil-paper Insulation Under Non-uniform Aging Based on Finite Element Method. , 2021, , .		0
121	Identifying Electric Power Demand in Structural Path Analysis: A Case Study of 30 Chinese Provinces. DEStech Transactions on Environment Energy and Earth Science, 2019, , .	0.0	0
122	Interprovincial Water Transfer in Electricity Transmission System from 2005 to 2014. DEStech Transactions on Environment Energy and Earth Science, 2019, , .	0.0	0
123	Effect of Temperature on Methanol Equilibrium in Oil-paper Insulation System of Power Transformers. , 2020, , .		0
124	Evaluation Model of Ternary Chemical Indicators for Aging Status of Paper Insulation at Transformer Winding Hot Spots. , 2021, , .		0
125	FDS Extraction of Hot Spots of Transformer Oil-immersed Insulation Based on Non-uniform Aging Equivalent Model and Genetic Algorithm. , 2021, , .		0
126	Modified Charge Transport Model Under High-Frequency Unipolar Square Wave Voltage. Frontiers in Materials, 0, 9, .	2.4	0