## Guofu Zhai

## List of Publications by Citations

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97 447 2.2 3.61 ext. papers ext. citations avg, IF L-index

#	Paper	IF	Citations
62	Online Condition Monitoring of Power MOSFET Gate Oxide Degradation Based on Miller Platform Voltage. <i>IEEE Transactions on Power Electronics</i> , <b>2017</b> , 32, 4776-4784	7.2	60
61	3-D modeling and analysis of meander-line-coil surface wave EMATs. <i>Mechatronics</i> , <b>2012</b> , 22, 653-660	3	35
60	An Improved Empirical Mode Decomposition Based on Adaptive Weighted Rational Quartic Spline for Rolling Bearing Fault Diagnosis. <i>IEEE Access</i> , <b>2020</b> , 8, 123813-123827	3.5	17
59	Minimizing influence of multi-modes and dispersion of electromagnetic ultrasonic lamb waves. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2010</b> , 57, 2725-33	3.2	12
58	Analysis of multiple wavelengths of Lamb waves generated by meander-line coil EMATs. <i>Ultrasonics</i> , <b>2014</b> , 54, 632-6	3.5	11
57	Investigation on Arc Dwell and Restriking Characteristics in DC High-Power Relay. <i>IEEE Transactions on Plasma Science</i> , <b>2017</b> , 45, 1032-1042	1.3	9
56	Numerical and experimental evaluation of the receiving performance of meander-line coil EMATs. <i>Nondestructive Testing and Evaluation</i> , <b>2014</b> , 29, 269-282	2	9
55	Study on Arc Behaviors at Opening a 270V Resistive Circuit by Bridge-Type Contacts under Magnetic Field. <i>IEICE Transactions on Electronics</i> , <b>2013</b> , E96.C, 1124-1131	0.4	9
54	An Adaptive Optimized TVF-EMD Based on a Sparsity-Impact Measure Index for Bearing Incipient Fault Diagnosis. <i>IEEE Transactions on Instrumentation and Measurement</i> , <b>2021</b> , 70, 1-11	5.2	9
53	Evaporation Erosion of Contacts Under Static Arc by Gas Dynamics and Molten Pool Simulation. <i>IEEE Transactions on Plasma Science</i> , <b>2015</b> , 43, 4149-4160	1.3	8
52	A remaining useful life prediction method based on condition monitoring for LED driver 2012,		8
51	Modeling of Lorentz forces and radiated wave fields for bulk wave electromagnetic acoustic transducers. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 054901	2.5	7
50	Influence of coil parameters on transduction performance of unidirectional EMATs for Rayleigh wave <b>2013</b> ,		6
49	Experimental study on arc behaviors of a bridge-type contact when opening a resistive load in the range of from 280VDC to 730 VDC <b>2014</b> ,		6
48	Analog circuits fault diagnosis by GA-RBF neural network and virtual instruments 2012,		6
47	A Joint Distribution-Based Testability Metric Estimation Model for Unreliable Tests. <i>IEEE Access</i> , <b>2018</b> , 6, 42566-42577	3.5	6
46	Multi-Objective Optimization of Contactor® Characteristics Based on RBF Neural Networks and Hybrid Method. <i>IEEE Transactions on Magnetics</i> , <b>2019</b> , 55, 1-4	2	5

45	Rail flaw detection system based on electromagnetic acoustic technique <b>2010</b> ,	5
44	Thermal Analysis of Sealed Electromagnetic Relays Using 3-D Finite Element Method <b>2007</b> ,	5
43	Experimental Study on Arcing Process and Contact Erosion under Transverse Magnetic Field 2009,	4
42	Investigation of the N level adhesion force characteristics of gold-coated materials in air <b>2017</b> , 93, 1008-10	<b>23</b> <sub>3</sub>
41	Research on storage degradation testing and life prediction based on ARMA and wavelet transform model for aerospace electromagnetic relay <b>2014</b> ,	3
40	Research on Dynamic Characteristics Optimization via Analytical Modeling for Typical Rotational Electromagnetic System. <i>IEEE Transactions on Magnetics</i> , <b>2014</b> , 50, 1-4	3
39	Analysis of wavelength deviation of guided waves with electromagnetic acoustic transducers. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 084913	3
38	Research on Accelerated Storage Degradation Testing for Aerospace Electromagnetic Relay 2012,	3
37	Study on the Retrograde Motion of Arc under Transverse Magnetic Field. <i>IEICE Transactions on Electronics</i> , <b>2010</b> , E93-C, 1431-1436	3
36	Degradation model and maintenance strategy of the electrolytic capacitors for electronics applications <b>2011</b> ,	3
35	Characteristic research and analysis of EMAT's transduction efficiency for surface detection of aluminum plate <b>2009</b> ,	3
34	The Discrimination of Contact Failure Mechanisms by Analyzing the Variations of Time Parameters for Relays. <i>IEICE Transactions on Electronics</i> , <b>2010</b> , E93-C, 1437-1442	3
33	Research on Dynamic Characteristics Testing and Analyzing System of Electromagnetic Relay. <i>IEICE Transactions on Electronics</i> , <b>2009</b> , E92-C, 1028-1033	3
32	Study on Optimization of Electromagnetic Relay's Reaction Torque Characteristics Based on Adjusted Parameters. <i>IEICE Transactions on Electronics</i> , <b>2009</b> , E92-C, 1023-1027	3
31	Design Method of Multiwavelength EMATs Based on Spatial Domain Harmonic Control. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control,</i> <b>2021</b> , 68, 2259-2270	3
30	Robust Design Optimization of Electromagnetic Actuators for Renewable Energy Systems  Considering the Manufacturing Cost. <i>Energies</i> , <b>2019</b> , 12, 4353	3
29	Quality Analysis and Consistency Design of Electromagnetic Device Based on Approximation Model. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2015</b> , 5, 99-107	2
28	The failure mechanism of electromagnetic relay in accelerated storage degradation testing 2017,	2

27	Simulation of Arc Dwelling Behavior During Bridge-Type Contacts Opening Process for High-Power Relay. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2018</b> , 8, 975-981	1.7	2
26	A new robust tolerance design method for electromechanical device based on variable contribution rate coefficients. <i>Journal of Engineering Design</i> , <b>2017</b> , 28, 532-548	1.8	2
25	Comparisons on Arc Behavior and Contact Performance between Cu and Cu-Mo Alloys in a Bridge-Type Contact System. <i>IEICE Transactions on Electronics</i> , <b>2015</b> , E98.C, 904-911	0.4	2
24	Reliability research on power MOSFET using coupled electrical-thermal-mechanical analysis 2012,		2
23	Vibration and thermal buckling analyses of multi-span composite lattice sandwich beams. <i>Archive of Applied Mechanics</i> , <b>2021</b> , 91, 2601-2616	2.2	2
22	Simulation of Metal Droplet Sputtering and Molten Pool on Copper Contact under Electric Arc. <i>IEICE Transactions on Electronics</i> , <b>2018</b> , E101.C, 691-698	0.4	2
21	Reliability Assessment of LED Driver Considering Parameter Variations in Strength and Stress Model <b>2018</b> ,		2
20	The Design of Contactors Based on the Niching Multiobjective Particle Swarm Optimization. <i>Complexity</i> , <b>2018</b> , 2018, 1-10	1.6	2
19	Electrical Lifespan Prediction of HVDC Relay Based on the Accumulated Arc Erosion Mass. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2018</b> , 8, 356-363	1.7	2
18	Simulation and diagnosis of degradation failure on electromagnetic relay 2017,		1
18	Simulation and diagnosis of degradation failure on electromagnetic relay 2017,  A portable inspection instrument based on electromagnetic acoustic transducers 2013,		1
17	A portable inspection instrument based on electromagnetic acoustic transducers <b>2013</b> ,  Study on feasibility of storage accelerated testing based on parameter degradation for aerospace		1
17 16	A portable inspection instrument based on electromagnetic acoustic transducers 2013,  Study on feasibility of storage accelerated testing based on parameter degradation for aerospace relays 2012,		1
17 16	A portable inspection instrument based on electromagnetic acoustic transducers 2013,  Study on feasibility of storage accelerated testing based on parameter degradation for aerospace relays 2012,  Thermal Stability Analysis of Disconnect Switch Based on FEM 2010,  Research on influence of lorentz force mechanism on EMAT's transduction efficiency in steel plate		1 1
17 16 15	A portable inspection instrument based on electromagnetic acoustic transducers 2013,  Study on feasibility of storage accelerated testing based on parameter degradation for aerospace relays 2012,  Thermal Stability Analysis of Disconnect Switch Based on FEM 2010,  Research on influence of lorentz force mechanism on EMAT's transduction efficiency in steel plate 2010,	1.7	1 1 1
17 16 15 14	A portable inspection instrument based on electromagnetic acoustic transducers 2013,  Study on feasibility of storage accelerated testing based on parameter degradation for aerospace relays 2012,  Thermal Stability Analysis of Disconnect Switch Based on FEM 2010,  Research on influence of lorentz force mechanism on EMAT's transduction efficiency in steel plate 2010,  A method for optimizing excitation of electromagnetic ultrasonic Lamb wave 2010,  A New Theoretical Model to Study the Closing Bounce Characteristics of the Electromagnetic Relay Under Capacitive Loads. IEEE Transactions on Components, Packaging and Manufacturing Technology	1.7	1 1 1 1 1

## LIST OF PUBLICATIONS

Soft Fault Diagnosis Using URV-LDA Transformed Feature Dictionary. IEEE Access, 2021, 9, 16019-16029 3.5 9 1 Life-Cycle Dynamic Robust Design Optimization for Batch Production of Permanent Magnet 8 8.9 Actuator. IEEE Transactions on Industrial Electronics, 2021, 68, 9885-9896 Quality and robustness optimization design method for electromagnetic devices consider manufacturing uncertainties and working point migration of permanent magnets. SN Applied 1.8 О Sciences, 2020, 2, 1 Study on the Influence of Creep on RF Coaxial Switch in Accelerated Thermal Cycle Test. IEEE 1.7 Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 966-974 Effect of Axial and Transverse Magnetic Fields on the Arc Duration and Material Transfer. IEICE 0.4 Ο 5 Transactions on Electronics, 2012, E95-C, 395-400 A Generalized Parallel Transmission Line Iteration for Finite Element Analysis of Permanent Magnet 2 Axisymmetrical Actuator. IEEE Transactions on Magnetics, 2019, 55, 1-10 Design of a high-performance 12T SRAM cell for single event upset tolerance. Science China Ο 3 3.4 Information Sciences, 2021, 64, 1 Failure Process and Dynamic Reliability Estimation of Sealed Relay. IEICE Transactions on Electronics 0.4 , **2011**, E94-C, 1375-1380 Reliability Analysis Based on a Bivariate Degradation Model Considering Random Initial State and 4.6 1 Its Correlation With Degradation Rate. IEEE Transactions on Reliability, 2022, 1-12