

# Guofu Zhai

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

62

papers

313

citations

9

h-index

14

g-index

97

ext. papers

447

ext. citations

2.2

avg, IF

3.61

L-index

#	Paper	IF	Citations
62	Reliability Analysis Based on a Bivariate Degradation Model Considering Random Initial State and Its Correlation With Degradation Rate. <i>IEEE Transactions on Reliability</i> , <b>2022</b> , 1-12	4.6	
61	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	3.2	3
60	A failure mechanism consistency test method for accelerated degradation test. <i>Quality and Reliability Engineering International</i> , <b>2021</b> , 37, 464-483	2.6	1
59	Soft Fault Diagnosis Using URV-LDA Transformed Feature Dictionary. <i>IEEE Access</i> , <b>2021</b> , 9, 16019-16029	3.5	1
58	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
57	Design of a high-performance 12T SRAM cell for single event upset tolerance. <i>Science China Information Sciences</i> , <b>2021</b> , 64, 1	3.4	0
56	Life-Cycle Dynamic Robust Design Optimization for Batch Production of Permanent Magnet Actuator. <i>IEEE Transactions on Industrial Electronics</i> , <b>2021</b> , 68, 9885-9896	8.9	1
55	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
54	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
53	Quality and robustness optimization design method for electromagnetic devices consider manufacturing uncertainties and working point migration of permanent magnets. <i>SN Applied Sciences</i> , <b>2020</b> , 2, 1	1.8	0
52	A New Theoretical Model to Study the Closing Bounce Characteristics of the Electromagnetic Relay Under Capacitive Loads. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2020</b> , 10, 1358-1366	1.7	1
51	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
50	Robust Design Optimization of Electromagnetic Actuators for Renewable Energy Systems Considering the Manufacturing Cost. <i>Energies</i> , <b>2019</b> , 12, 4353	3.1	3
49	A Generalized Parallel Transmission Line Iteration for Finite Element Analysis of Permanent Magnet Axisymmetrical Actuator. <i>IEEE Transactions on Magnetics</i> , <b>2019</b> , 55, 1-10	2	0
48	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
47	Study on the Influence of Creep on RF Coaxial Switch in Accelerated Thermal Cycle Test. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2018</b> , 8, 966-974	1.7	0
46	A Joint Distribution-Based Testability Metric Estimation Model for Unreliable Tests. <i>IEEE Access</i> , <b>2018</b> , 6, 42566-42577	3.5	6

45	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
44	Reliability Assessment of LED Driver Considering Parameter Variations in Strength and Stress Model <b>2018</b> ,		2
43	The Design of Contactors Based on the Niching Multiobjective Particle Swarm Optimization. <i>Complexity</i> , <b>2018</b> , 2018, 1-10	1.6	2
42	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
41	Investigation of the $\mu$ level adhesion force characteristics of gold-coated materials in air <b>2017</b> , 93, 1008-1023		3
40	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
39	Simulation and diagnosis of degradation failure on electromagnetic relay <b>2017</b> ,		1
38	The failure mechanism of electromagnetic relay in accelerated storage degradation testing <b>2017</b> ,		2
37	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
36	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
35	Study on thermal characteristics of RF coaxial switch based on finite element method <b>2016</b> ,		1
34	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	1.7	2
33	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
32	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
31	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
30	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
29	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
28	Research on storage degradation testing and life prediction based on ARMA and wavelet transform model for aerospace electromagnetic relay <b>2014</b> ,		3

27	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	2	3
26	A portable inspection instrument based on electromagnetic acoustic transducers <b>2013</b> ,		1
25	Influence of coil parameters on transduction performance of unidirectional EMATs for Rayleigh wave <b>2013</b> ,		6
24	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
23	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
22	Analog circuits fault diagnosis by GA-RBF neural network and virtual instruments <b>2012</b> ,		6
21	Analysis of wavelength deviation of guided waves with electromagnetic acoustic transducers. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 084913	2.5	3
20	Study on feasibility of storage accelerated testing based on parameter degradation for aerospace relays <b>2012</b> ,		1
19	Research on Accelerated Storage Degradation Testing for Aerospace Electromagnetic Relay <b>2012</b> ,		3
18	Reliability research on power MOSFET using coupled electrical-thermal-mechanical analysis <b>2012</b> ,		2
17	3-D modeling and analysis of meander-line-coil surface wave EMATs. <i>Mechatronics</i> , <b>2012</b> , 22, 653-660	3	35
16	A remaining useful life prediction method based on condition monitoring for LED driver <b>2012</b> ,		8
15	Effect of Axial and Transverse Magnetic Fields on the Arc Duration and Material Transfer. <i>IEICE Transactions on Electronics</i> , <b>2012</b> , E95-C, 395-400	0.4	0
14	Failure Process and Dynamic Reliability Estimation of Sealed Relay. <i>IEICE Transactions on Electronics</i> , <b>2011</b> , E94-C, 1375-1380	0.4	
13	Degradation model and maintenance strategy of the electrolytic capacitors for electronics applications <b>2011</b> ,		3
12	Study on the Retrograde Motion of Arc under Transverse Magnetic Field. <i>IEICE Transactions on Electronics</i> , <b>2010</b> , E93-C, 1431-1436	0.4	3
11	Thermal Stability Analysis of Disconnect Switch Based on FEM <b>2010</b> ,		1
10	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

9	Research on influence of lorentz force mechanism on EMAT's transduction efficiency in steel plate <b>2010</b> ,		1
8	Rail flaw detection system based on electromagnetic acoustic technique <b>2010</b> ,		5
7	A method for optimizing excitation of electromagnetic ultrasonic Lamb wave <b>2010</b> ,		1
6	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	0.4	3
5	Characteristic research and analysis of EMAT's transduction efficiency for surface detection of aluminum plate <b>2009</b> ,		3
4	Experimental Study on Arcing Process and Contact Erosion under Transverse Magnetic Field <b>2009</b> ,		4
3	Research on Dynamic Characteristics Testing and Analyzing System of Electromagnetic Relay. <i>IEICE Transactions on Electronics</i> , <b>2009</b> , E92-C, 1028-1033	0.4	3
2	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	0.4	3
1	Thermal Analysis of Sealed Electromagnetic Relays Using 3-D Finite Element Method <b>2007</b> ,		5