

Guofu Zhai

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7672678/publications.pdf>

Version: 2024-02-01

97
papers

574
citations

840119

11
h-index

794141

19
g-index

97
all docs

97
docs citations

97
times ranked

441
citing authors

#	ARTICLE	IF	CITATIONS
1	Online Condition Monitoring of Power MOSFET Gate Oxide Degradation Based on Miller Platform Voltage. IEEE Transactions on Power Electronics, 2017, 32, 4776-4784.	5.4	86
2	3-D modeling and analysis of meander-line-coil surface wave EMATs. Mechatronics, 2012, 22, 653-660.	2.0	45
3	An Improved Empirical Mode Decomposition Based on Adaptive Weighted Rational Quartic Spline for Rolling Bearing Fault Diagnosis. IEEE Access, 2020, 8, 123813-123827.	2.6	29
4	An Adaptive Optimized TVF-EMD Based on a Sparsity-Impact Measure Index for Bearing Incipient Fault Diagnosis. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	2.4	26
5	Investigation on Arc Dwell and Restriking Characteristics in DC High-Power Relay. IEEE Transactions on Plasma Science, 2017, 45, 1032-1042.	0.6	21
6	Modeling of Lorentz forces and radiated wave fields for bulk wave electromagnetic acoustic transducers. Journal of Applied Physics, 2013, 114, .	1.1	19
7	Minimizing influence of multi-modes and dispersion of electromagnetic ultrasonic lamb waves. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 2725-2733.	1.7	17
8	Analysis of multiple wavelengths of Lamb waves generated by meander-line coil EMATs. Ultrasonics, 2014, 54, 632-636.	2.1	16
9	Evaporation Erosion of Contacts Under Static Arc by Gas Dynamics and Molten Pool Simulation. IEEE Transactions on Plasma Science, 2015, 43, 4149-4160.	0.6	16
10	Vibration and thermal buckling analyses of multi-span composite lattice sandwich beams. Archive of Applied Mechanics, 2021, 91, 2601-2616.	1.2	14
11	A remaining useful life prediction method based on condition monitoring for LED driver. , 2012, , .		12
12	Experimental study on arc behaviors of a bridge-type contact when opening a resistive load in the range of from 280VDC to 730 VDC. , 2014, , .		12
13	Degradation model and maintenance strategy of the electrolytic capacitors for electronics applications. , 2011, , .		11
14	Numerical and experimental evaluation of the receiving performance of meander-line coil EMATs. Nondestructive Testing and Evaluation, 2014, 29, 269-282.	1.1	11
15	Study on Arc Behaviors at Opening a 270V Resistive Circuit by Bridge-Type Contacts under Magnetic Field. IEICE Transactions on Electronics, 2013, E96.C, 1124-1131.	0.3	11
16	Simulation of Arc Dwelling Behavior During Bridge-Type Contacts Opening Process for High-Power Relay. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 975-981.	1.4	10
17	Multi-Objective Optimization of Contactor's Characteristics Based on RBF Neural Networks and Hybrid Method. IEEE Transactions on Magnetics, 2019, 55, 1-4.	1.2	10
18	Rail flaw detection system based on electromagnetic acoustic technique. , 2010, , .		9

#	ARTICLE	IF	CITATIONS
19	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, 2020, 10, 1358-1366.	1.4	9
20	Comparisons on Arc Behavior and Contact Performance between Cu and Cu-Mo Alloys in a Bridge-Type Contact System. IEICE Transactions on Electronics, 2015, E98.C, 904-911.	0.3	8
21	A Joint Distribution-Based Testability Metric Estimation Model for Unreliable Tests. IEEE Access, 2018, 6, 42566-42577.	2.6	8
22	Analog circuits fault diagnosis by GA-RBF neural network and virtual instruments. , 2012, , .		7
23	Influence of coil parameters on transduction performance of unidirectional EMATs for Rayleigh wave. , 2013, , .		7
24	A failure mechanism consistency test method for accelerated degradation test. Quality and Reliability Engineering International, 2021, 37, 464-483.	1.4	7
25	Thermal Analysis of Sealed Electromagnetic Relays Using 3-D Finite Element Method. , 2007, , .		6
26	Life-Cycle Dynamic Robust Design Optimization for Batch Production of Permanent Magnet Actuator. IEEE Transactions on Industrial Electronics, 2021, 68, 9885-9896.	5.2	6
27	Research on Dynamic Characteristics of The Electromagnetic Relay. , 2007, , .		5
28	Research on Accelerated Storage Degradation Testing for Aerospace Electromagnetic Relay. , 2012, , .		5
29	Robust Design Optimization of Electromagnetic Actuators for Renewable Energy Systems Considering the Manufacturing Cost. Energies, 2019, 12, 4353.	1.6	5
30	Design Method of Multiwavelength EMATs Based on Spatial Domain Harmonic Control. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 2259-2270.	1.7	5
31	Characteristic research and analysis of EMAT's transduction efficiency for surface detection of aluminum plate. , 2009, , .		4
32	Experimental Study on Arcing Process and Contact Erosion under Transverse Magnetic Field. , 2009, , .		4
33	Study on the Retrograde Motion of Arc under Transverse Magnetic Field. IEICE Transactions on Electronics, 2010, E93-C, 1431-1436.	0.3	4
34	Research on storage degradation testing and life prediction based on ARMA and wavelet transform model for aerospace electromagnetic relay. , 2014, , .		4
35	Research on Dynamic Characteristics Optimization via Analytical Modeling for Typical Rotational Electromagnetic System. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	4
36	Investigation of the $\hat{1}/4N$ level adhesion force characteristics of gold-coated materials in air. Journal of Adhesion, 2017, 93, 1008-1023.	1.8	4

#	ARTICLE	IF	CITATIONS
37	A new robust tolerance design method for electromechanical device based on variable contribution rate coefficients. Journal of Engineering Design, 2017, 28, 532-548.	1.1	4
38	The failure mechanism of electromagnetic relay in accelerated storage degradation testing. , 2017, , .		4
39	Electrical Lifespan Prediction of HVDC Relay Based on the Accumulated Arc Erosion Mass. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 356-363.	1.4	4
40	Study on Optimization of Electromagnetic Relay's Reaction Torque Characteristics Based on Adjusted Parameters. IEICE Transactions on Electronics, 2009, E92-C, 1023-1027.	0.3	4
41	Reliability Analysis Based on a Bivariate Degradation Model Considering Random Initial State and Its Correlation With Degradation Rate. IEEE Transactions on Reliability, 2023, 72, 37-48.	3.5	4
42	Research on life prediction based on wavelet transform and ARMA model for space relay. , 2009, , .		3
43	The Discrimination of Contact Failure Mechanisms by Analyzing the Variations of Time Parameters for Relays. IEICE Transactions on Electronics, 2010, E93-C, 1437-1442.	0.3	3
44	Thermal Stability Analysis of Disconnect Switch Based on FEM. , 2010, , .		3
45	Research on influence of lorentz force mechanism on EMAT's transduction efficiency in steel plate. , 2010, , .		3
46	Analysis of wavelength deviation of guided waves with electromagnetic acoustic transducers. Journal of Applied Physics, 2012, 112, 084913.	1.1	3
47	Reliability research on power MOSFET using coupled electrical-thermal-mechanical analysis. , 2012, , .		3
48	Quality Analysis and Consistency Design of Electromagnetic Device Based on Approximation Model. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2015, 5, 99-107.	1.4	3
49	Simulation and diagnosis of degradation failure on electromagnetic relay. , 2017, , .		3
50	Simulation of Metal Droplet Sputtering and Molten Pool on Copper Contact under Electric Arc. IEICE Transactions on Electronics, 2018, E101.C, 691-698.	0.3	3
51	Reliability Assessment of LED Driver Considering Parameter Variations in Strength and Stress Model. , 2018, , .		3
52	A Generalized Parallel Transmission Line Iteration for Finite Element Analysis of Permanent Magnet Axisymmetrical Actuator. IEEE Transactions on Magnetics, 2019, 55, 1-10.	1.2	3
53	Soft Fault Diagnosis Using URV-LDA Transformed Feature Dictionary. IEEE Access, 2021, 9, 16019-16029.	2.6	3
54	Design of a high-performance 12T SRAM cell for single event upset tolerance. Science China Information Sciences, 2021, 64, 1.	2.7	3

#	ARTICLE	IF	CITATIONS
55	Research on Dynamic Characteristics Testing and Analyzing System of Electromagnetic Relay. IEICE Transactions on Electronics, 2009, E92-C, 1028-1033.	0.3	3
56	A Novel Nonlinear Dynamic Model for Predicting Contact Bounce of Electromagnetic Relays With Flexible Spring Components. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2022, 12, 1318-1328.	1.4	3
57	Study on feasibility of storage accelerated testing based on parameter degradation for aerospace relays. , 2012, , .		2
58	A robust design method to improve performance reliability based on degradation characteristic. , 2013, , .		2
59	A portable inspection instrument based on electromagnetic acoustic transducers. , 2013, , .		2
60	Research on the influence of contact gap on AC arc duration of electromagnetic relay. , 2014, , .		2
61	The Design of Contactors Based on the Niching Multiobjective Particle Swarm Optimization. Complexity, 2018, 2018, 1-10.	0.9	2
62	Radiation-Hardened Memory Cell for Ultralow Power Space Applications. , 2019, , .		2
63	Quality and robustness optimization design method for electromagnetic devices consider manufacturing uncertainties and working point migration of permanent magnets. SN Applied Sciences, 2020, 2, 1.	1.5	2
64	Estimation of Lithium Primary Battery Capacity Based on Pulse Load Test. , 2021, , .		2
65	Practical Velocity-Updating Algorithm of Strapdown Inertial Navigation System with Ring Laser Gyro. , 2007, , .		1
66	Experiment Research on High Frequency Making and Breaking Characteristics of Automobile Horn Contacts. , 2010, , .		1
67	A method for optimizing excitation of electromagnetic ultrasonic Lamb wave. , 2010, , .		1
68	A feature extraction method for remnant particles based on non-negative tensor factorization in aerospace electronic equipments. , 2012, , .		1
69	Effect of Axial and Transverse Magnetic Fields on the Arc Duration and Material Transfer. IEICE Transactions on Electronics, 2012, E95-C, 395-400.	0.3	1
70	A Type of Attractive Force Calculation Model of Polarized Relay Based on Nonlinear Permanent Magnet Bar Subsection Model. , 2012, , .		1
71	Recognition Method of Inherent Mechanical Noise in PIND Signal of Aerospace Relay Based on Pedigree Cluster. , 2015, , .		1
72	Storage reliability assessment for electromechanical components with small sampling based on prior information prediction. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
73	Simulation on dwell stage of arcs in bridge type contacts for high-voltage DC relay. , 2016, , .		1
74	Study on thermal characteristics of RF coaxial switch based on finite element method. , 2016, , .		1
75	Insertion Force Investigation of Electrical Connector with Convergent Angle and Concentricity. , 2016, , .		1
76	In-situ prognostic method of power MOSFET based on miller effect. , 2017, , .		1
77	3-D Hydrodynamic Model of Metal Droplet Sputtering and Molten Pool Formation Under Electric Arc. , 2018, , .		1
78	Study on the Influence of Creep on RF Coaxial Switch in Accelerated Thermal Cycle Test. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 966-974.	1.4	1
79	An Active Limit Baffle for the Phenomenon of Arc Instability and Re-ignition. , 2019, , .		1
80	Contact Bounce Model Considering Arc Ignition for Relay Contact Reliability Evaluation. , 2021, , .		1
81	Shielding Design for Current Sensor of Excitation System Based on 3-D FEM. , 2010, , .		0
82	Study on distributed digital simulation analysis system of aerospace electromagnetic relay based on Ethernet network. , 2011, , .		0
83	Failure Process and Dynamic Reliability Estimation of Sealed Relay. IEICE Transactions on Electronics, 2011, E94-C, 1375-1380.	0.3	0
84	Robust design of high precision electromagnetic relay force measurement device. , 2015, , .		0
85	Research on Metal-Particle Sizing in Particle Impact Noise Detection System. , 2015, , .		0
86	Development of a Testing System for Springs Used in Brake Valves for Trains. , 2016, , .		0
87	Testability design based on relevance of circuit nodes and fault diagnosis. , 2017, , .		0
88	A HALT-Simulation Combined Fault Diagnosis and Optimization Method for Electronic Module. , 2018, , .		0
89	Simple Formula for Eliminating Grating Lobes in EMAT Phased Arrays. , 2018, , .		0
90	Research on Contact Reliability Design of Electrical Connector Contact. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
91	Research on Composite Fretting Behaviour of Au-Plated Copper Wire Spring Contacts Used in Electrical Connectors. , 2019, , .		0
92	Optimization on magnetic trip used in hydraulic-magnetic circuit breakers based on Taylor approximation. , 2021, , .		0
93	Fault Prediction for Rotating Bearing United Genetic Algorithm Optimize Variational Mode Decomposition and Support Vector Machine. , 2021, , .		0
94	Accelerated Aging Test and Life Prediction of Rubber Strip for Connector Sealing. , 2021, , .		0
95	Uncertainty and Cost Based Robust Design Approach for Quality Consistency of Electromagnetic Actuators. , 2021, , .		0
96	An Efficient Robust Design Optimization Approach of Electromagnetic Relay Based on Surrogate Model and Evolutionary Algorithm. , 2021, , .		0
97	Life Prediction of Lithium Thionyl Chloride Battery Based on Pulse Load Test and Accelerated Degradation Test. , 2021, , .		0