

# Yunze He

## List of Publications by Year in descending order

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97  
papers

3,693  
citations

94433

37  
h-index

138484

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98  
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98  
docs citations

98  
times ranked

2063  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optically and non-optically excited thermography for composites: A review. <i>Infrared Physics and Technology</i> , 2016, 75, 26-50.	2.9	211
2	Steel Corrosion Characterization Using Pulsed Eddy Current Systems. <i>IEEE Sensors Journal</i> , 2012, 12, 2113-2120.	4.7	152
3	Pulsed eddy current technique for defect detection in aircraft riveted structures. <i>NDT and E International</i> , 2010, 43, 176-181.	3.7	142
4	Progress and trends in nondestructive testing and evaluation for wind turbine composite blade. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 60, 1225-1250.	16.4	126
5	Impact evaluation in carbon fiber reinforced plastic (CFRP) laminates using eddy current pulsed thermography. <i>Composite Structures</i> , 2014, 109, 1-7.	5.8	114
6	Non-destructive testing of low-energy impact in CFRP laminates and interior defects in honeycomb sandwich using scanning pulsed eddy current. <i>Composites Part B: Engineering</i> , 2014, 59, 196-203.	12.0	113
7	Pulsed eddy current imaging and frequency spectrum analysis for hidden defect nondestructive testing and evaluation. <i>NDT and E International</i> , 2011, 44, 344-352.	3.7	108
8	Defect characterisation using pulsed eddy current thermography under transmission mode and NDT applications. <i>NDT and E International</i> , 2012, 52, 28-36.	3.7	99
9	Multidimensional Tensor-Based Inductive Thermography With Multiple Physical Fields for Offshore Wind Turbine Gear Inspection. <i>IEEE Transactions on Industrial Electronics</i> , 2016, 63, 6305-6315.	7.9	96
10	Infrared machine vision and infrared thermography with deep learning: A review. <i>Infrared Physics and Technology</i> , 2021, 116, 103754.	2.9	91
11	Defect classification based on rectangular pulsed eddy current sensor in different directions. <i>Sensors and Actuators A: Physical</i> , 2010, 157, 26-31.	4.1	87
12	Unsupervised Sparse Pattern Diagnostic of Defects With Inductive Thermography Imaging System. <i>IEEE Transactions on Industrial Informatics</i> , 2016, 12, 371-383.	11.3	87
13	An investigation into eddy current pulsed thermography for detection of corrosion blister. <i>Corrosion Science</i> , 2014, 78, 1-6.	6.6	85
14	PEC defect automated classification in aircraft multi-ply structures with interlayer gaps and lift-offs. <i>NDT and E International</i> , 2013, 53, 39-46.	3.7	80
15	Reduction of Lift-Off Effects in Pulsed Eddy Current for Defect Classification. <i>IEEE Transactions on Magnetics</i> , 2011, 47, 4753-4760.	2.1	70
16	Eddy Current Volume Heating Thermography and Phase Analysis for Imaging Characterization of Interface Delamination in CFRP. <i>IEEE Transactions on Industrial Informatics</i> , 2015, 11, 1287-1297.	11.3	70
17	Induction Infrared Thermography and Thermal-Wave-Radar Analysis for Imaging Inspection and Diagnosis of Blade Composites. <i>IEEE Transactions on Industrial Informatics</i> , 2018, 14, 5637-5647.	11.3	69
18	Intelligent Classification of Silicon Photovoltaic Cell Defects Based on Eddy Current Thermography and Convolution Neural Network. <i>IEEE Transactions on Industrial Informatics</i> , 2020, 16, 6242-6251.	11.3	69

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19	Shared Excitation Based Nonlinear Ultrasound and Vibrothermography Testing for CFRP Barely Visible Impact Damage Inspection. IEEE Transactions on Industrial Informatics, 2018, 14, 5575-5584.	11.3	68
20	Lateral heat conduction based eddy current thermography for detection of parallel cracks and rail tread oblique cracks. Measurement: Journal of the International Measurement Confederation, 2015, 66, 54-61.	5.0	67
21	An overview of acoustic emission inspection and monitoring technology in the key components of renewable energy systems. Mechanical Systems and Signal Processing, 2021, 148, 107146.	8.0	66
22	Nondestructive inspection, testing and evaluation for Si-based, thin film and multi-junction solar cells: An overview. Renewable and Sustainable Energy Reviews, 2017, 78, 1117-1151.	16.4	65
23	Volume or inside heating thermography using electromagnetic excitation for advanced composite materials. International Journal of Thermal Sciences, 2017, 111, 41-49.	4.9	64
24	Eddy Current Pulsed Thermography with Different Excitation Configurations for Metallic Material and Defect Characterization. Sensors, 2016, 16, 843.	3.8	63
25	Research on spectral response of pulsed eddy current and NDE applications. Sensors and Actuators A: Physical, 2013, 189, 313-320.	4.1	59
26	Defect characterisation based on heat diffusion using induction thermography testing. Review of Scientific Instruments, 2012, 83, 104702.	1.3	58
27	Eddy current pulsed phase thermography and feature extraction. Applied Physics Letters, 2013, 103, .	3.3	57
28	A Review of Microwave Thermography Nondestructive Testing and Evaluation. Sensors, 2017, 17, 1123.	3.8	56
29	Defect characterisation based on pulsed eddy current imaging technique. Sensors and Actuators A: Physical, 2010, 164, 1-7.	4.1	48
30	Identification and characterisation of steel corrosion using passive high frequency RFID sensors. Measurement: Journal of the International Measurement Confederation, 2016, 92, 421-427.	5.0	47
31	Support vector machine and optimised feature extraction in integrated eddy current instrument. Measurement: Journal of the International Measurement Confederation, 2013, 46, 764-774.	5.0	46
32	Noncontact Electromagnetic Induction Excited Infrared Thermography for Photovoltaic Cells and Modules Inspection. IEEE Transactions on Industrial Informatics, 2018, 14, 5585-5593.	11.3	45
33	Optimal design of remote field eddy current testing probe for ferromagnetic pipeline inspection. Measurement: Journal of the International Measurement Confederation, 2021, 168, 108306.	5.0	44
34	Joint Scanning Laser Thermography Defect Detection Method for Carbon Fiber Reinforced Polymer. IEEE Sensors Journal, 2020, 20, 328-336.	4.7	41
35	Eddy current pulsed phase thermography considering volumetric induction heating for delamination evaluation in carbon fiber reinforced polymers. Applied Physics Letters, 2015, 106, 234103.	3.3	39
36	Multi-resonant piezoelectric shunting induced by digital controllers for subwavelength elastic wave attenuation in smart metamaterial. Smart Materials and Structures, 2017, 26, 025031.	3.5	39

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37	Dynamic Scanning Electromagnetic Infrared Thermographic Analysis Based on Blind Source Separation for Industrial Metallic Damage Evaluation. IEEE Transactions on Industrial Informatics, 2018, 14, 5610-5619.	11.3	39
38	PEC Frequency Band Selection for Locating Defects in Two-Layer Aircraft Structures With Air Gap Variations. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 2849-2856.	4.7	38
39	Defect edge identification with rectangular pulsed eddy current sensor based on transient response signals. NDT and E International, 2010, 43, 409-415.	3.7	37
40	Eddy current pulsed phase thermography for subsurface defect quantitatively evaluation. Applied Physics Letters, 2013, 103, .	3.3	37
41	Near infrared nighttime road pedestrians recognition based on convolutional neural network. Infrared Physics and Technology, 2019, 97, 25-32.	2.9	37
42	CFRP barely visible impact damage inspection based on an ultrasound wave distortion indicator. Composites Part B: Engineering, 2019, 168, 152-158.	12.0	34
43	Through coating imaging and nondestructive visualization evaluation of early marine corrosion using electromagnetic induction thermography. Ocean Engineering, 2018, 147, 277-288.	4.3	32
44	Defect identification and evaluation based on three-dimensional magnetic field measurement of pulsed eddy current. Insight: Non-Destructive Testing and Condition Monitoring, 2009, 51, 310-314.	0.6	30
45	Polymer-matrix composites carbon fibre characterisation and damage inspection using selectively heating thermography (SeHT) through electromagnetic induction. Composite Structures, 2016, 140, 590-601.	5.8	30
46	CFRP Impact Damage Inspection Based on Manifold Learning Using Ultrasonic Induced Thermography. IEEE Transactions on Industrial Informatics, 2019, 15, 2648-2659.	11.3	30
47	Influence of metallic shields on pulsed eddy current sensor for ferromagnetic materials defect detection. Sensors and Actuators A: Physical, 2016, 248, 162-172.	4.1	28
48	Progress and trends in fault diagnosis for renewable and sustainable energy system based on infrared thermography: A review. Infrared Physics and Technology, 2020, 109, 103383.	2.9	28
49	Eddy current step heating thermography for quantitatively evaluation. Applied Physics Letters, 2013, 103, 194101.	3.3	27
50	Pulsed inductive thermal wave radar (PI-TWR) using cross correlation matched filtering in eddy current thermography. Infrared Physics and Technology, 2015, 71, 469-474.	2.9	26
51	Inductive pulsed phase thermography for reducing or enlarging the effect of surface emissivity variation. Applied Physics Letters, 2014, 105, 184103.	3.3	25
52	Evaluation of Atmospheric Corrosion on Coated Steel Using -Band Sweep Frequency Microwave Imaging. IEEE Sensors Journal, 2016, 16, 3025-3033.	4.7	24
53	Stress detection and measurement in ferromagnetic metals using pulse electromagnetic method with U-shaped sensor. Measurement: Journal of the International Measurement Confederation, 2017, 105, 136-145.	5.0	23
54	Flexible Floral Eddy Current Probe for Detecting Flaws in Metal Plate. IEEE Sensors Journal, 2020, 20, 10521-10529.	4.7	18

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55	Line Scanning Thermography Reconstruction Algorithm for Defects Inspection With Novel Velocity Estimation and Image Registration. <i>IEEE Sensors Journal</i> , 2021, 21, 11555-11568.	4.7	18
56	Phase-Locked Restored Pseudo Heat Flux Thermography for Detecting Delamination Inside Carbon Fiber Reinforced Composites. <i>IEEE Transactions on Industrial Informatics</i> , 2019, 15, 2938-2946.	11.3	17
57	Pulsed eddy current thermography for corrosion characterisation. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2012, 39, 269-276.	0.6	15
58	Overview of condition monitoring and operation control of electric power conversion systems in direct-drive wind turbines under faults. <i>Frontiers of Mechanical Engineering</i> , 2017, 12, 281-302.	4.3	15
59	Electromagnetic Induction Heating and Image Fusion of Silicon Photovoltaic Cell Electrothermography and Electroluminescence. <i>IEEE Transactions on Industrial Informatics</i> , 2020, 16, 4413-4422.	11.3	14
60	Terahertz imaging and vibro-thermography for impact response in carbon fiber reinforced plastics. <i>Infrared Physics and Technology</i> , 2020, 109, 103413.	2.9	14
61	Acoustic Emission-Based Experimental Analysis of Mechanical Stress Wave in IGBT Device. <i>IEEE Sensors Journal</i> , 2020, 20, 6064-6074.	4.7	14
62	Flexible Differential Butterfly-Shape Eddy Current Array Sensor for Defect Detection of Screw Thread. <i>IEEE Sensors Journal</i> , 2021, 21, 20764-20777.	4.7	14
63	Logarithmic analysis of eddy current thermography based on longitudinal heat conduction for subsurface defect evaluation. <i>Infrared Physics and Technology</i> , 2014, 67, 467-472.	2.9	13
64	Magnetic field shielding technique for pulsed remote field eddy current inspection of planar conductors. <i>NDT and E International</i> , 2017, 90, 48-54.	3.7	13
65	Acoustic Emission Detection and Analysis Method for Health Status of Lithium Ion Batteries. <i>Sensors</i> , 2021, 21, 712.	3.8	12
66	Influence of key factors on Eddy current testing sensitivity and monotonicity on subsurface depth for ferromagnetic and non-ferromagnetic materials. <i>Sensors and Actuators A: Physical</i> , 2018, 278, 98-110.	4.1	10
67	Efficient numerical simulation of eddy current pulsed thermography NDT signals based on FEM-BEM method and energy equivalent principle. <i>Infrared Physics and Technology</i> , 2019, 101, 138-145.	2.9	10
68	Water Target Recognition Method and Application for Unmanned Surface Vessels. <i>IEEE Access</i> , 2022, 10, 421-434.	4.2	10
69	Eddy Current Pulsed Thermography for Noncontact Nondestructive Inspection of Motor Winding Defects. <i>IEEE Sensors Journal</i> , 2020, 20, 2625-2634.	4.7	9
70	CFRP Barely Visible Impact Damage Inspection Based on Nonlinear Ultrasound Signal Sparse Reconstruction. <i>IEEE Sensors Journal</i> , 2018, 18, 6303-6310.	4.7	8
71	A reliable initial rotor position estimation method for sensorless control of interior permanent magnet synchronous motors. <i>ISA Transactions</i> , 2020, 97, 116-129.	5.7	8
72	A Deconvolutional Reconstruction Method Based on Lucy-Richardson Algorithm for Joint Scanning Laser Thermography. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-8.	4.7	8

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73	Hybrid Position Estimation Strategy With a Smooth Transition for IPMSM Sensorless Drives in the Wide Speed Range. IEEE Transactions on Power Electronics, 2022, 37, 7916-7927.	7.9	8
74	Pulsed Eddy Current Nondestructive Testing for Defect Evaluation and Imaging of Automotive Lightweight Alloy Materials. Journal of Sensors, 2018, 2018, 1-11.	1.1	7
75	Flexible Probe With Array Tunneling Magnetoresistance Sensors for Curved Structure Inspection. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	4.7	7
76	An investigation and review into microwave thermography for NDT and SHM. , 2015, , .		6
77	Improvement of Source Number Estimation Method for Single Channel Signal. PLoS ONE, 2016, 11, e0164654.	2.5	6
78	Analysis of the Stress-Wave Influence Parameters of Silicon MOSFET Under 300V Drain Source Voltage. IEEE Sensors Journal, 2021, 21, 20107-20118.	4.7	6
79	Joint Scanning Electromagnetic Thermography for Industrial Motor Winding Defect Inspection and Quantitative Evaluation. IEEE Transactions on Industrial Informatics, 2021, 17, 6832-6841.	11.3	6
80	Detection of Debonding Defects Between Radar Absorbing Material and CFRP Substrate by Microwave Thermography. IEEE Sensors Journal, 2022, 22, 4378-4385.	4.7	6
81	The influence of MEMS on electromagnetic NDT. , 2014, , .		5
82	Identification of MOSFET Working State Based on the Stress Wave and Deep Learning. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	4.7	4
83	Defect classification in two-layer complex structures based on spectrum analysis of pulsed eddy current. Insight: Non-Destructive Testing and Condition Monitoring, 2011, 53, 146-151.	0.6	3
84	Active 3-D Thermography Based on Feature-Free Registration of Thermogram Sequence and 3-D Shape Via a Single Thermal Camera. IEEE Transactions on Industrial Electronics, 2022, 69, 11774-11784.	7.9	3
85	Experimental study and signal analysis of acoustic emission from power MOSFET. Microelectronics Reliability, 2021, 127, 114411.	1.7	3
86	Analysis of Influence Parameters of Stress Wave at the Turn-Off Moment in IGBT Device Based on Differential AE Sensor. IEEE Sensors Journal, 2022, 22, 2259-2270.	4.7	3
87	Corrosion characterisation using pulsed eddy current sensor systems. , 2011, , .		2
88	An investigation into atmospheric corrosion detection under paint with K-band microwave NDT. , 2015, , .		2
89	Characterisation of Steel Corrosion Using High Frequency RFID. , 2017, , .		2
90	Real-Time Voltage Flicker Tracking Method Based on Improved Teager Energy Operator and Fourier Transform. Electric Power Components and Systems, 2018, 46, 1198-1209.	1.8	2

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91	Detection Mechanism of Parallel Defect using Scanning Inductive Thermography. IOP Conference Series: Materials Science and Engineering, 2017, 207, 012090.	0.6	1
92	Shape Mapping Detection of Electric Vehicle Alloy Defects Based on Pulsed Eddy Current Rectangular Sensors. Applied Sciences (Switzerland), 2018, 8, 2066.	2.5	1
93	Exposed Corrosion Progression Characterisation Using Pulsed Eddy Current Sensing and Laser Profilometry. , 2019, , .		1
94	Model-Based POD Evaluation with Parameters from Experiment: A Comparative Study of TMR and Coil Array Probes. Journal of Nondestructive Evaluation, 2022, 41, 1.	2.4	1
95	Simulation Analysis of Multi-Frequency Eddy Current Sensor Impedance Property. , 2009, , .		0
96	Pulsed eddy current systems for defect and geometrical profile measurement. , 2011, , .		0
97	Ultrasonic array time-reversal based super resolution imaging. , 2014, , .		0