

Hai Zhang

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

1,289
citations

331670

21
h-index

377865

34
g-index

61
all docs

61
docs citations

61
times ranked

968
citing authors

#	ARTICLE	IF	CITATIONS
1	Non-destructive Investigation of Paintings on Canvas by Continuous Wave Terahertz Imaging and Flash Thermography. <i>Journal of Nondestructive Evaluation</i> , 2017, 36, 1.	2.4	106
2	Optical and Mechanical Excitation Thermography for Impact Response in Basalt-Carbon Hybrid Fiber-Reinforced Composite Laminates. <i>IEEE Transactions on Industrial Informatics</i> , 2018, 14, 514-522.	11.3	81
3	The axial crack testing model for long distance oil-gas pipeline based on magnetic flux leakage internal inspection method. <i>Measurement: Journal of the International Measurement Confederation</i> , 2017, 103, 275-282.	5.0	69
4	An experimental and analytical study of micro-laser line thermography on micro-sized flaws in stitched carbon fiber reinforced polymer composites. <i>Composites Science and Technology</i> , 2016, 126, 17-26.	7.8	63
5	Weak magnetic flux leakage: A possible method for studying pipeline defects located either inside or outside the structures. <i>NDT and E International</i> , 2015, 74, 81-86.	3.7	56
6	Reliability assessment of pulsed thermography and ultrasonic testing for impact damage of CFRP panels. <i>NDT and E International</i> , 2019, 102, 77-83.	3.7	54
7	Application of NDT thermographic imaging of aerospace structures. <i>Infrared Physics and Technology</i> , 2019, 97, 456-466.	2.9	52
8	Automated defect classification in infrared thermography based on a neural network. <i>NDT and E International</i> , 2019, 107, 102147.	3.7	47
9	Optical excitation thermography for twill/plain weaves and stitched fabric dry carbon fibre preform inspection. <i>Composites Part A: Applied Science and Manufacturing</i> , 2018, 107, 282-293.	7.6	40
10	Carbon fiber composite inspection and defect characterization using active infrared thermography: numerical simulations and experimental results. <i>Applied Optics</i> , 2016, 55, D46.	2.1	37
11	Experimental Evaluation of Pulsed Thermography, Lock-in Thermography and Vibrothermography on Foreign Object Defect (FOD) in CFRP. <i>Sensors</i> , 2016, 16, 743.	3.8	34
12	Comparison of Cooled and Uncooled IR Sensors by Means of Signal-to-Noise Ratio for NDT Diagnostics of Aerospace Grade Composites. <i>Sensors</i> , 2020, 20, 3381.	3.8	34
13	Fiber orientation assessment on randomly-oriented strand composites by means of infrared thermography. <i>Composites Science and Technology</i> , 2015, 121, 25-33.	7.8	33
14	An Infrared-Induced Terahertz Imaging Modality for Foreign Object Detection in a Lightweight Honeycomb Composite Structure. <i>IEEE Transactions on Industrial Informatics</i> , 2018, 14, 5629-5636.	11.3	33
15	An active infrared thermography method for fiber orientation assessment of fiber-reinforced composite materials. <i>Infrared Physics and Technology</i> , 2015, 72, 286-292.	2.9	29
16	Total Variation Regularization Term-Based Low-Rank and Sparse Matrix Representation Model for Infrared Moving Target Tracking. <i>Remote Sensing</i> , 2018, 10, 510.	4.0	28
17	Optimised dynamic line scan thermographic detection of CFRP inserts using FE updating and POD analysis. <i>NDT and E International</i> , 2018, 93, 141-149.	3.7	26
18	Non-destructive defect evaluation of polymer composites via thermographic data analysis: A manifold learning method. <i>Infrared Physics and Technology</i> , 2019, 97, 300-308.	2.9	26

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19	Comparative study on submillimeter flaws in stitched T-joint carbon fiber reinforced polymer by infrared thermography, microcomputed tomography, ultrasonic c-scan and microscopic inspection. <i>Optical Engineering</i> , 2015, 54, 104109.	1.0	23
20	Pulsed micro-laser line thermography on submillimeter porosity in carbon fiber reinforced polymer composites: experimental and numerical analyses for the capability of detection. <i>Applied Optics</i> , 2016, 55, D1.	2.1	23
21	Machine Learning and Infrared Thermography for Fiber Orientation Assessment on Randomly-Oriented Strands Parts. <i>Sensors</i> , 2018, 18, 288.	3.8	23
22	Precious walls built in indoor environments inspected numerically and experimentally within long-wave infrared (LWIR) and radio regions. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 137, 1083-1111.	3.6	22
23	Quantitative study on the propagation characteristics of MMM signal for stress internal detection of long distance oil and gas pipeline. <i>NDT and E International</i> , 2018, 100, 40-47.	3.7	21
24	Thermographic Non-Destructive Evaluation for Natural Fiber-Reinforced Composite Laminates. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 240.	2.5	20
25	Thermographic Non-destructive Evaluation of Carbon Fiber-Reinforced Polymer Plates After Tensile Testing. <i>Journal of Nondestructive Evaluation</i> , 2015, 34, 1.	2.4	19
26	Automated assessment and tracking of human body thermal variations using unsupervised clustering. <i>Applied Optics</i> , 2016, 55, D162.	2.1	19
27	Study on internal stress damage detection in long-distance oil and gas pipelines via weak magnetic method. <i>ISA Transactions</i> , 2019, 89, 272-280.	5.7	19
28	Comparative study of microlaser excitation thermography and microultrasonic excitation thermography on submillimeter porosity in carbon fiber reinforced polymer composites. <i>Optical Engineering</i> , 2016, 56, 041304.	1.0	18
29	Evaluation of the state of conservation of mosaics: Simulations and thermographic signal processing. <i>International Journal of Thermal Sciences</i> , 2017, 117, 287-315.	4.9	18
30	Eddy current pulsed thermography for ballistic impact evaluation in basalt-carbon hybrid composite panels. <i>Applied Optics</i> , 2018, 57, D74.	1.8	18
31	Study on characteristics of magnetic memory testing signal based on the stress concentration field. <i>IET Science, Measurement and Technology</i> , 2017, 11, 2-8.	1.6	16
32	Terahertz Amplitude Polynomial Principle Component Regression for Aramid-Basalt Hybrid Composite Laminate Inspection. <i>IEEE Transactions on Industrial Informatics</i> , 2018, 14, 5601-5609.	11.3	16
33	Enhanced Infrared Image Processing for Impacted Carbon/Glass Fiber-Reinforced Composite Evaluation. <i>Sensors</i> , 2018, 18, 45.	3.8	15
34	Quantitative study of magnetic memory signal characteristic affected by external magnetic field. Measurement: <i>Journal of the International Measurement Confederation</i> , 2019, 131, 730-736.	5.0	15
35	Impact Modelling and A Posteriori Non-destructive Evaluation of Homogeneous Particleboards of Sugarcane Bagasse. <i>Journal of Nondestructive Evaluation</i> , 2018, 37, 1.	2.4	13
36	Truncated-correlation photothermal coherence tomography derivative imaging modality for small animal in vivo early tumor detection. <i>Optics Letters</i> , 2019, 44, 675.	3.3	12

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37	Evaluating thermal properties of sugarcane bagasse-based composites by using active infrared thermography and terahertz imaging. <i>Infrared Physics and Technology</i> , 2019, 97, 432-439.	2.9	11
38	Qualitative Assessments via Infrared Vision of Sub-surface Defects Present Beneath Decorative Surface Coatings. <i>International Journal of Thermophysics</i> , 2018, 39, 1.	2.1	10
39	On the Use of Infrared Thermography and Acousto-Ultrasonics NDT Techniques for Ceramic-Coated Sandwich Structures. <i>Energies</i> , 2019, 12, 2537.	3.1	9
40	Infrared thermographic inspection of 3D hybrid aluminium-CFRP composite using different spectral bands and new unsupervised probabilistic low-rank component factorization model. <i>NDT and E International</i> , 2022, 125, 102561.	3.7	9
41	Novel infrared-terahertz fusion 3D non-invasive imaging of plant fibre-reinforced polymer composites. <i>Composites Science and Technology</i> , 2022, 226, 109526.	7.8	9
42	Infrared thermography, ultrasound C-scan and microscope for non-destructive and destructive evaluation of 3D carbon fiber materials: a comparative study. <i>Proceedings of SPIE</i> , 2015, , .	0.8	8
43	Autonomous dynamic line-scan continuous-wave terahertz non-destructive inspection system combined with unsupervised exposure fusion. <i>NDT and E International</i> , 2022, 132, 102705.	3.7	7
44	A Comparative Study of Enhanced Infrared Image Processing for Foreign Object Detection in Lightweight Composite Honeycomb Structures. <i>International Journal of Thermophysics</i> , 2018, 39, 1.	2.1	6
45	Research on stress detection technology of long-distance pipeline applying non-magnetic saturation. <i>IET Science, Measurement and Technology</i> , 2019, 13, 168-174.	1.6	5
46	Enhanced Infrared Sparse Pattern Extraction and Usage for Impact Evaluation of Basalt-Carbon Hybrid Composites by Pulsed Thermography. <i>Sensors</i> , 2020, 20, 7159.	3.8	5
47	Multi-Excitation Infrared Fusion for Impact Evaluation of Aluminium-BFRP/GFRP Hybrid Composites. <i>Sensors</i> , 2021, 21, 5961.	3.8	5
48	Nondestructive evaluation of low-velocity impact-induced damage in basalt-carbon hybrid composite laminates using eddy current-pulsed thermography. <i>Optical Engineering</i> , 2018, 58, 1.	1.0	5
49	Infrared thermography for CFRP inspection: computational model and experimental results. <i>Proceedings of SPIE</i> , 2016, , .	0.8	4
50	A novel optical air-coupled ultrasound NDE sensing technique compared with infrared thermographic NDT on impacted composite materials. , 2018, , .		4
51	Artificial Neural Networks and Infrared Thermography for Fiber Orientation Assessment. , 2017, , .		3
52	Automatic Detection and Delimitation of Internal Moisture in Mosaics from Thermographic Sequences. <i>Experimental Tests. Proceedings (mdpi)</i> , 2019, 27, .	0.2	3
53	A comparative study of experimental and finite element analysis on submillimeter flaws by laser and ultrasonic excited thermography. <i>Proceedings of SPIE</i> , 2016, , .	0.8	2
54	Numerical and experimental analyses for natural and non-natural impacted composites via thermographic inspection, ultrasonic C-scan and terahertz imaging. , 2017, , .		2

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55	Dynamic Line-Scan Thermography for the Inspection of Paper-Based Materials: A Case Study Focused on an Ancient Book Cover. Proceedings (mdpi), 2019, 27, .	0.2	2
56	Nondestructive evaluation using eddy current pulsed thermographic imaging of basalt-carbon hybrid fiber-reinforced composite laminates subjected to low-velocity impact loadings. , 2018, , .		1
57	Three-Dimensional Non-Destructive Inspection Using Novel Infrared-Terahertz Fusion Approaches. Engineering Proceedings, 2021, 8, .	0.4	1
58	Investigation of the influence of spatial degrees of freedom on thermal infrared measurement. Proceedings of SPIE, 2017, , .	0.8	0
59	Comparative study on point and line thermographic inspection for fiber orientation assessment of randomly oriented strand material. Journal of the Brazilian Computer Society, 2018, 24, .	1.3	0
60	Terahertz Image Improvement for an Environmentally Friendly Sandwich Structure. , 2018, , .		0