

Mark Eaton

List of Publications by Year in descending order

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54
papers

1,331
citations

361413

20
h-index

361022

35
g-index

54
all docs

54
docs citations

54
times ranked

1299
citing authors

#	ARTICLE	IF	CITATIONS
1	Damage classification in carbon fibre composites using acoustic emission: A comparison of three techniques. <i>Composites Part B: Engineering</i> , 2015, 68, 424-430.	12.0	158
2	Locating acoustic emission sources in complex structures using Gaussian processes. <i>Mechanical Systems and Signal Processing</i> , 2010, 24, 211-223.	8.0	114
3	Acoustic emission source location in complex structures using full automatic delta T mapping technique. <i>Mechanical Systems and Signal Processing</i> , 2016, 72-73, 513-524.	8.0	101
4	Acoustic emission source location in composite materials using Delta T Mapping. <i>Composites Part A: Applied Science and Manufacturing</i> , 2012, 43, 856-863.	7.6	100
5	A new methodology for automating acoustic emission detection of metallic fatigue fractures in highly demanding aerospace environments: An overview. <i>Progress in Aerospace Sciences</i> , 2017, 90, 1-11.	12.1	72
6	Structural characterisation and transdermal delivery studies on sugar microneedles: Experimental and finite element modelling analyses. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2015, 89, 224-231.	4.3	71
7	Localisation and identification of fatigue matrix cracking and delamination in a carbon fibre panel by acoustic emission. <i>Composites Part B: Engineering</i> , 2015, 74, 1-12.	12.0	69
8	Improved acoustic emission source location during fatigue and impact events in metallic and composite structures. <i>Structural Health Monitoring</i> , 2017, 16, 382-399.	7.5	50
9	The influence of water absorption on unidirectional and 2D woven CFRP composites and their mechanical performance. <i>Composites Part B: Engineering</i> , 2020, 182, 107626.	12.0	49
10	Proximal tibial strain in medial unicompartmental knee replacements. <i>Bone and Joint Journal</i> , 2013, 95-B, 1339-1347.	4.4	41
11	Parameter Correction Technique (PCT): A novel method for acoustic emission characterisation in large-scale composites. <i>Composites Part B: Engineering</i> , 2015, 75, 336-344.	12.0	40
12	Towards improved damage location using acoustic emission. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2012, 226, 2141-2153.	2.1	37
13	Classification of acoustic emission data from buckling test of carbon fibre panel using unsupervised clustering techniques. <i>Structural Health Monitoring</i> , 2015, 14, 241-251.	7.5	33
14	Metal-backed versus all-polyethylene unicompartmental knee arthroplasty. <i>Bone and Joint Research</i> , 2017, 6, 22-30.	3.6	33
15	Acoustic emission for monitoring aircraft structures. <i>Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering</i> , 2009, 223, 525-532.	1.3	31
16	Energy Harvesting for Aerospace Structural Health Monitoring Systems. <i>Journal of Physics: Conference Series</i> , 2012, 382, 012025.	0.4	29
17	Characterisation of fatigue damage in composites using an Acoustic Emission Parameter Correction Technique. <i>Composites Part B: Engineering</i> , 2018, 151, 237-244.	12.0	29
18	An integrated numerical model for investigating guided waves in impact-damaged composite laminates. <i>Composite Structures</i> , 2017, 176, 945-960.	5.8	24

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19	Use of Macro Fibre Composite Transducers as Acoustic Emission Sensors. Remote Sensing, 2009, 1, 68-79.	4.0	21
20	An advanced model for initiation and propagation of damage under fatigue loading “ part II: Matrix cracking validation cases. Composite Structures, 2011, 93, 2350-2357.	5.8	20
21	Detecting and identifying artificial acoustic emission signals in an industrial fatigue environment. Measurement Science and Technology, 2009, 20, 045101.	2.6	18
22	Spatial scanning for anomaly detection in acoustic emission testing of an aerospace structure. Mechanical Systems and Signal Processing, 2011, 25, 2462-2474.	8.0	16
23	Characterisation of Damage in Composite Structures using Acoustic Emission. Journal of Physics: Conference Series, 2011, 305, 012086.	0.4	14
24	Correlation between acoustic emission distribution and stress variation through the depth of RC beam cross sections. Construction and Building Materials, 2017, 150, 634-645.	7.2	12
25	A comparison study of water diffusion in unidirectional and 2D woven carbon/epoxy composites. Polymer Composites, 2022, 43, 118-129.	4.6	12
26	Development of a Methodology to Assess Mechanical Impulse Effects Resulting from Lightning Attachment to Lightweight Aircraft Structures. Applied Mechanics and Materials, 0, 24-25, 129-134.	0.2	10
27	Detection of Cracking in Gear Teeth Using Acoustic Emission. Applied Mechanics and Materials, 0, 24-25, 45-50.	0.2	10
28	Principal Component Analysis of Acoustic Emission Signals From Landing Gear Components: An Aid to Fatigue Fracture Detection. Strain, 2011, 47, e588-e594.	2.4	10
29	Validation of Acoustic Emission (AE) Crack Detection in Aerospace Grade Steel Using Digital Image Correlation. Applied Mechanics and Materials, 0, 24-25, 221-226.	0.2	9
30	Acoustic emission based damage localization in composites structures using Bayesian identification. Journal of Physics: Conference Series, 2017, 842, 012081.	0.4	9
31	Optimised Vibration Energy Harvesting for Aerospace Applications. Key Engineering Materials, 2012, 518, 246-260.	0.4	8
32	A Principal Component Analysis of Acoustic Emission Signals from a Landing Gear Component. Applied Mechanics and Materials, 2008, 13-14, 41-47.	0.2	7
33	The Dynamic Buckling of Stiffened Panels “A Study Using High Speed Digital Image Correlation. Applied Mechanics and Materials, 0, 24-25, 331-336.	0.2	6
34	Identification of the Onset of Cracking in Gear Teeth Using Acoustic Emission. Journal of Physics: Conference Series, 2012, 382, 012050.	0.4	6
35	On the Development of a Damage Detection System using Macro-fibre Composite Sensors. Journal of Physics: Conference Series, 2012, 382, 012049.	0.4	6
36	A Generic Framework for Application of Machine Learning in Acoustic Emission-Based Damage Identification. Lecture Notes in Mechanical Engineering, 2020, , 244-262.	0.4	6

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37	Non-destructive evaluation of isotropic plate structures by means of mode filtering in the frequency-wavenumber domain. <i>Mechanical Systems and Signal Processing</i> , 2020, 142, 106801.	8.0	6
38	Impact Damage Detection and Assessment in Composite Panels using Macro Fibre Composites Transducers. <i>Journal of Physics: Conference Series</i> , 2011, 305, 012049.	0.4	5
39	Acoustic Emission Source Characterisation in Large-Scale Composite Structures. <i>Applied Mechanics and Materials</i> , 0, 70, 381-386.	0.2	5
40	Assessment of Bonded Patch Bridge Repairs Using Acoustic Emission and Acousto-Ultrasonics. <i>Key Engineering Materials</i> , 0, 518, 57-65.	0.4	5
41	An autonomous structural health monitoring solution. , 2013, , .		5
42	Optimizing the Number of Acoustic Emission Sensors Using the Bees Algorithm for Detecting Surface Fractures. <i>Procedia CIRP</i> , 2018, 67, 362-367.	1.9	5
43	Automated Damage Detection in Composite Components Using Acoustic Emission. <i>Key Engineering Materials</i> , 0, 569-570, 80-87.	0.4	4
44	An Assessment of the Effect of Progressive Water Absorption on the Interlaminar Strength of Unidirectional Carbon/Epoxy Composites Using Acoustic Emission. <i>Sensors</i> , 2021, 21, 4351.	3.8	4
45	Determination of Damage Levels of Composite Plates after Low Velocity Impacts Using Acoustic Emission. <i>Advanced Materials Research</i> , 2006, 13-14, 253-258.	0.3	2
46	Modelling the Effects of Geometric Imperfections on the Buckling and Initial Post-buckling Behaviour of Flat Plates Under Compression Using Measured Data. <i>Strain</i> , 2012, 48, 208-215.	2.4	2
47	Chebyshev descriptors for SHM with acoustic emission and acousto ultrasonics. <i>International Journal of Structural Integrity</i> , 2014, 5, 202-213.	3.3	2
48	Acoustic emission technology can warn of impending iatrogenic femur fracture during femoral canal preparation for uncemented hip replacement. A cadaveric animal bone study. <i>Journal of Medical Engineering and Technology</i> , 2018, 42, 72-87.	1.4	2
49	Acoustic Emission Monitoring of Defects in Buckling CFRP Composite Panels. <i>Advanced Materials Research</i> , 2006, 13-14, 259-266.	0.3	1
50	Computer-controlled electromagnetic control and image capture system for alignment of magnetic graphene nanofillers in epoxy composites. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2019, 61, S23-S29.	0.6	1
51	Development of an automated assessment technology for detecting damage in body armour. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2020, 234, 4116-4125.	2.1	1
52	Detecting and Identifying Artificial Acoustic Emission Signals in an Industrial Fatigue Environment. <i>Applied Mechanics and Materials</i> , 2008, 13-14, 251-260.	0.2	0
53	Classification of Delamination and Matrix Cracking in Carbon Fibre Composite Plates Using Acoustic Emission (AE). , 2009, , .		0
54	Damage Detection in Composite Materials Using Airborne Acoustics. <i>Key Engineering Materials</i> , 0, 569-570, 72-79.	0.4	0