

# Michael Fitzpatrick

## List of Publications by Year in descending order

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200  
papers

4,329  
citations

101496

36  
h-index

168321

53  
g-index

202  
all docs

202  
docs citations

202  
times ranked

3498  
citing authors

#	ARTICLE	IF	CITATIONS
1	Residual stress and texture control in Ti-6Al-4V wire-arc additively manufactured intersections by stress relief and rolling. <i>Materials and Design</i> , 2018, 150, 193-205.	3.3	137
2	Strain imaging by Bragg edge neutron transmission. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2002, 481, 765-768.	0.7	119
3	An experimental study of residual stress and direction-dependence of fatigue crack growth behaviour in as-built and stress-relieved selective-laser-melted Ti6Al4V. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 755, 246-257.	2.6	116
4	Effect of laser shock peening on residual stress and fatigue life of clad 2024 aluminium sheet containing scribe defects. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 548, 142-151.	2.6	110
5	Separation of macroscopic, elastic mismatch and thermal expansion misfit stresses in metal matrix composite quenched plates from neutron diffraction measurements. <i>Acta Materialia</i> , 1997, 45, 4867-4876.	3.8	103
6	Cross-sectional mapping of residual stresses in a VPPA weld using the contour method. <i>Acta Materialia</i> , 2004, 52, 5225-5232.	3.8	98
7	The onset of tensile residual stresses in grinding of hardened steels. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 367, 132-142.	2.6	86
8	Detecting anomalies in time series data via a deep learning algorithm combining wavelets, neural networks and Hilbert transform. <i>Expert Systems With Applications</i> , 2017, 85, 292-304.	4.4	86
9	The evolution of crack-tip stresses during a fatigue overload event. <i>Acta Materialia</i> , 2010, 58, 4039-4052.	3.8	81
10	Effects of Surface Preparation on Pitting Resistance, Residual Stress, and Stress Corrosion Cracking in Austenitic Stainless Steels. <i>Journal of Materials Engineering and Performance</i> , 2001, 10, 507-514.	1.2	80
11	Residual stress evaluation in selective-laser-melting additively manufactured titanium (Ti-6Al-4V) and inconel 718 using the contour method and numerical simulation. <i>Additive Manufacturing</i> , 2018, 22, 571-582.	1.7	78
12	Prediction of welding residual stresses using machine learning: Comparison between neural networks and neuro-fuzzy systems. <i>Applied Soft Computing Journal</i> , 2018, 70, 131-146.	4.1	74
13	Determination of the profile of the complete residual stress tensor in a VPPA weld using the multi-axial contour method. <i>Acta Materialia</i> , 2008, 56, 4417-4428.	3.8	71
14	Weld residual stress effects on fatigue crack growth behaviour of aluminium alloy 2024-T351. <i>International Journal of Fatigue</i> , 2009, 31, 1081-1088.	2.8	71
15	Effect of Near-Surface Residual Stress and Microstructure Modification From Machining on the Fatigue Endurance of a Tool Steel. <i>Journal of Materials Engineering and Performance</i> , 2002, 11, 631-639.	1.2	69
16	Fatigue crack growth in a laser shock peened residual stress field. <i>International Journal of Fatigue</i> , 2019, 123, 157-167.	2.8	62
17	The effect of weld residual stresses and their re-distribution with crack growth during fatigue under constant amplitude loading. <i>International Journal of Fatigue</i> , 2010, 32, 735-743.	2.8	61
18	In situ observation of strain and phase transformation in plastically deformed 301 austenitic stainless steel. <i>Materials and Design</i> , 2016, 112, 107-116.	3.3	58

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19	Modeling oxygen self-diffusion in UO <sub>2</sub> under pressure. <i>Solid State Ionics</i> , 2015, 282, 26-30.	1.3	55
20	Changes in the misfit stresses in an Al/SiCp metal matrix composite under plastic strain. <i>Acta Materialia</i> , 2002, 50, 1031-1040.	3.8	54
21	A combined experimental and finite element approach for determining mechanical properties of aluminium alloys by nanoindentation. <i>Computational Materials Science</i> , 2010, 49, 751-760.	1.4	54
22	Efficient truss optimization using the contrast-based fruit fly optimization algorithm. <i>Computers and Structures</i> , 2017, 182, 137-148.	2.4	53
23	In situ analysis of cracks in structural materials using synchrotron X-ray tomography and diffraction. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2006, 246, 217-225.	0.6	52
24	Physical properties and defect processes of M <sub>3</sub> SnC <sub>2</sub> (M = Ti, Zr, Hf) MAX phases: Effect of M-elements. <i>Journal of Alloys and Compounds</i> , 2018, 748, 804-813.	2.8	49
25	Effects of laser shock peening on the mechanisms of fatigue short crack initiation and propagation of AA7075-T651. <i>International Journal of Fatigue</i> , 2021, 143, 106025.	2.8	47
26	Impact wear testing of diamond-like carbon films for engine valve-tappet surfaces. <i>Wear</i> , 2010, 268, 1303-1308.	1.5	46
27	Evaluation of the tribological properties of DLC for engine applications. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 5427-5437.	1.3	45
28	Effect of residual stress on the nanoindentation response of aerospace aluminium alloys. <i>Computational Materials Science</i> , 2011, 50, 2967-2976.	1.4	45
29	Experimental synthesis and density functional theory investigation of radiation tolerance of Zr <sub>3</sub> (Al <sub>1-x</sub> S <sub>x</sub> ) <sub>2</sub> C <sub>2</sub> MAX phases. <i>Journal of the American Ceramic Society</i> , 2017, 100, 1377-1387.	1.9	45
30	Instantaneous vehicle fuel consumption estimation using smartphones and recurrent neural networks. <i>Expert Systems With Applications</i> , 2019, 120, 436-447.	4.4	42
31	Bragg Edge Determination for Accurate Lattice Parameter and Elastic Strain Measurement. <i>Physica Status Solidi A</i> , 2001, 185, 221-230.	1.7	41
32	Effect of ultrasonic nanocrystal surface modification on residual stress and fatigue cracking in engineering alloys. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2018, 41, 844-855.	1.7	41
33	Fatigue and fracture of a 316 stainless steel metal matrix composite reinforced with 25% titanium diboride. <i>International Journal of Fatigue</i> , 2013, 48, 39-47.	2.8	40
34	Residual stresses induced by laser shock peening in orthopaedic Ti-6Al-7Nb alloy. <i>Optics and Laser Technology</i> , 2020, 131, 106446.	2.2	39
35	Improvement of the Contour Method for Measurement of Near-Surface Residual Stresses from Laser Peening. <i>Experimental Mechanics</i> , 2013, 53, 1705-1718.	1.1	38
36	Effect of shot peening on the fatigue behaviour of cast magnesium A8. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 507, 50-57.	2.6	37

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37	Application of synchrotron X-ray diffraction and nanoindentation for the determination of residual stress fields around scratches. <i>Acta Materialia</i> , 2011, 59, 7508-7520.	3.8	37
38	Synchrotron X-ray diffraction measurements of internal stresses during loading of steel-based metal matrix composites reinforced with TiB <sub>2</sub> particles. <i>Acta Materialia</i> , 2011, 59, 3373-3383.	3.8	37
39	Evaluation of residual stresses induced by cold spraying of Ti-6Al-4V on Ti-6Al-4V substrates. <i>Surface and Coatings Technology</i> , 2019, 374, 591-602.	2.2	37
40	Use of neutron and synchrotron X-ray diffraction for evaluation of residual stresses in a 2024-T351 aluminum alloy variable-polarity plasma-arc weld. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2006, 37, 411-420.	1.1	36
41	Effect of grain size on domain structures, dielectric and thermal depoling of Nd-substituted bismuth titanate ceramics. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	36
42	Analysis of the Residual Stress around a Cold-expanded Fastener Hole in a Finite Plate. <i>Strain</i> , 2005, 41, 59-70.	1.4	35
43	Intrinsic defect processes and elastic properties of Ti <sub>3</sub> AC <sub>2</sub> (A = Al, Si, Ga, Ge, In, Sn) MAX phases. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	31
44	Neutron diffraction measurement of the internal stresses following heat treatment of a plastically deformed Al/SiC particulate metal-matrix composite. <i>Acta Materialia</i> , 2004, 52, 3881-3888.	3.8	29
45	Residual stresses in structures reinforced with adhesively bonded straps designed to retard fatigue crack growth. <i>Composite Structures</i> , 2008, 86, 344-355.	3.1	28
46	Problems in using a comb sample as a stress-free reference for the determination of welding residual stress by diffraction. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 1226-1232.	2.6	28
47	Modelling of an imaging beamline at the ISIS pulsed neutron source. <i>Journal of Instrumentation</i> , 2013, 8, P10001-P10001.	0.5	28
48	Application of the eigenstrain approach to predict the residual stress distribution in laser shock peened AA7050-T7451 samples. <i>Surface and Coatings Technology</i> , 2015, 273, 39-49.	2.2	28
49	Optimal design of a quadratic parameter varying vehicle suspension system using contrast-based Fruit Fly Optimisation. <i>Applied Soft Computing Journal</i> , 2018, 62, 463-477.	4.1	27
50	Direct measurement of the residual stresses near a "boat-shaped" repair in a 20mm thick stainless steel tube butt weld. <i>International Journal of Pressure Vessels and Piping</i> , 2005, 82, 288-298.	1.2	26
51	Residual Stress Measurements in Single and Multi-Pass Groove Weld Specimens Using Neutron Diffraction and the Contour Method. <i>Materials Science Forum</i> , 2006, 524-525, 671-676.	0.3	26
52	Energy-Efficient machining process analysis and optimisation based on BS EN24T alloy steel as case studies. <i>Robotics and Computer-Integrated Manufacturing</i> , 2019, 58, 1-12.	6.1	26
53	Anelasticity in austenitic stainless steel. <i>Acta Materialia</i> , 2012, 60, 6851-6861.	3.8	25
54	Development and Application of the Contour Method to Determine the Residual Stresses in Thin Laser-Peened Aluminium Alloy Plates. <i>Experimental Mechanics</i> , 2016, 56, 323-330.	1.1	25

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55	Prediction of residual stresses in girth welded pipes using an artificial neural network approach. International Journal of Pressure Vessels and Piping, 2017, 150, 89-95.	1.2	25
56	Mapping of unstressed lattice parameters using pulsed neutron transmission diffraction. Journal of Applied Crystallography, 2002, 35, 497-504.	1.9	24
57	Evolution of residual stresses with fatigue loading and subsequent crack growth in a welded aluminium alloy middle tension specimen. Engineering Fracture Mechanics, 2008, 75, 3881-3894.	2.0	24
58	Measurement of the Residual Stresses around a Cold Expanded Hole in an EN8 Steel Plate Using the Contour Method. Materials Science Forum, 2002, 404-407, 527-534.	0.3	23
59	Determination of Weld Metal Mechanical Properties Utilising Novel Tensile Testing Methods. Applied Mechanics and Materials, 0, 7-8, 127-132.	0.2	23
60	Application of the work of indentation approach for the characterization of aluminium 2024-T351 and Al cladding by nanoindentation. Journal of Materials Science, 2009, 44, 1006-1015.	1.7	23
61	A comparison of neutron diffraction and hole-drilling residual strain measurements in thermally sprayed coatings. Surface and Coatings Technology, 2012, 206, 4180-4185.	2.2	23
62	Reactor pressure vessel embrittlement: Insights from neural network modelling. Journal of Nuclear Materials, 2018, 502, 311-322.	1.3	23
63	Measurement of the residual stress field in MIG-welded Al-2024 and Al-7150 aluminium alloy compact tension specimens. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 437, 46-53.	2.6	22
64	Stress intensity factors for through-thickness cracks in a wide plate: Derivation and application to arbitrary weld residual stress fields. Engineering Fracture Mechanics, 2007, 74, 2030-2054.	2.0	22
65	An in situ powder neutron diffraction study of nano-precipitate formation during processing of oxide-dispersion-strengthened ferritic steels. Journal of Alloys and Compounds, 2014, 582, 769-773.	2.8	22
66	The Effect of Hot Deformation Parameters on Microstructure Evolution of the $\beta$ -Phase in Ti-6Al-4V. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 4128-4136.	1.1	22
67	Recovery of fatigue life using laser peening on 2024-T351 aluminium sheet containing scratch damage: The role of residual stress. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 1161-1174.	1.7	22
68	Analysis of residual stress in metal-inert-gas-welded Al-2024 using neutron and synchrotron X-ray diffraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 491, 248-257.	2.6	21
69	Neutron diffraction residual strain measurements in nanostructured hydroxyapatite coatings for orthopaedic implants. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 2043-2054.	1.5	21
70	Mapping residual strain induced by cold working and by laser shock peening using neutron transmission spectroscopy. Materials and Design, 2018, 143, 56-64.	3.3	21
71	The effect of material cyclic deformation properties on residual stress generation by laser shock processing. International Journal of Mechanical Sciences, 2019, 156, 370-381.	3.6	21
72	Validation of the Contour Method of Residual Stress Measurement in a MIG 2024 Weld by Neutron and Synchrotron X-ray Diffraction. Journal of Neutron Research, 2003, 11, 181-185.	0.4	20

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73	Residual Stress Mapping in Welds Using the Contour Method. <i>Materials Science Forum</i> , 2005, 490-491, 294-299.	0.3	20
74	Neutron diffraction residual stress measurements on girth-welded 304 stainless steel pipes with weld metal deposited up to half and full pipe wall thickness. <i>International Journal of Pressure Vessels and Piping</i> , 2013, 101, 1-11.	1.2	20
75	Minimization and Mitigation of Wire EDM Cutting Errors in the Application of the Contour Method of Residual Stress Measurement. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 301-313.	1.1	20
76	Characterization and application of Bragg-edge transmission imaging for strain measurement and crystallographic analysis on the IMAT beamline. <i>Journal of Applied Crystallography</i> , 2019, 52, 351-368.	1.9	20
77	312 MAX Phases: Elastic Properties and Lithiation. <i>Materials</i> , 2019, 12, 4098.	1.3	20
78	Low cycle fatigue life prediction in shot-peened components of different geometries” part I: residual stress relaxation. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2017, 40, 761-775.	1.7	19
79	Elastic strains around cracked cold-expanded fastener holes measured using the synchrotron X-ray diffraction technique. <i>Journal of Strain Analysis for Engineering Design</i> , 2004, 39, 459-469.	1.0	18
80	Residual Strain and Fracture Response of Al <sub>2</sub> O <sub>3</sub> Coatings Deposited via APS and HVOF Techniques. <i>Journal of Thermal Spray Technology</i> , 2012, 21, 23-40.	1.6	18
81	Fatigue performance of friction stir welded marine grade steel. <i>International Journal of Fatigue</i> , 2015, 81, 162-170.	2.8	18
82	Through-Thickness Residual Stress Profiles in Austenitic Stainless Steel Welds: A Combined Experimental and Prediction Study. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 6178-6191.	1.1	18
83	Residual Stress Measurement and Fatigue Crack Growth Prediction after Cold Expansion of Cracked Fastener Holes. <i>Journal of Aerospace Engineering</i> , 2004, 17, 91-97.	0.8	17
84	Influence of cooling rate on the precipitation kinetics of nanoscale isothermal $\beta$ -phase in metastable $\beta$ -Ti alloy, Ti-5Al-5Mo-5V-3Cr. <i>Journal of Alloys and Compounds</i> , 2021, 859, 157822.	2.8	17
85	Separation of measured fatigue crack stress fields in a metal matrix composite material. <i>Acta Materialia</i> , 1999, 47, 585-593.	3.8	16
86	The effect of high compressive loading on residual stresses and fatigue crack growth at cold expanded holes. <i>Journal of Strain Analysis for Engineering Design</i> , 2003, 38, 419-427.	1.0	16
87	Effect of Ultrasonic Peening and Accelerated Corrosion Exposure on the Residual Stress Distribution in Welded Marine Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 1214-1226.	1.1	16
88	Describing oxygen self-diffusion in PuO <sub>2</sub> by connecting point defect parameters with bulk properties. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 3287-3290.	1.1	16
89	Effect of temperature and thermal cycling on fatigue crack growth in aluminium reinforced with GLARE bonded crack retarders. <i>International Journal of Fatigue</i> , 2017, 98, 53-61.	2.8	16
90	Robust Virtual Sensing for Vehicle Agile Manoeuvring: A Tyre-Model-Less Approach. <i>IEEE Transactions on Vehicular Technology</i> , 2018, 67, 1894-1908.	3.9	16

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91	The determination of the profile of macrostress and thermal mismatch stress through an Al/SiCp composite plate from the average residual strains measured in each phase. <i>Physica B: Condensed Matter</i> , 1995, 213-214, 790-792.	1.3	15
92	Effect of cyclic plasticity on internal stresses in a metal matrix composite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2006, 37, 1977-1986.	1.1	15
93	A new bridge technique for neutron tomography and diffraction measurements. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 651, 229-235.	0.7	15
94	Measurement of the evolution of internal strain and load partitioning in magnesium hybrid composites under compression load using in-situ synchrotron X-ray diffraction analysis. <i>Composites Science and Technology</i> , 2011, 71, 167-176.	3.8	15
95	Analysis of Residual Stresses in Laser-Shock-Peened and Shot-Peened Marine Steel Welds. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 759-770.	1.1	15
96	Finite Element Analysis of Laser Peening of Thin Aluminum Structures. <i>Metals</i> , 2020, 10, 93.	1.0	15
97	WhONet: Wheel Odometry neural Network for vehicular localisation in GNSS-deprived environments. <i>Engineering Applications of Artificial Intelligence</i> , 2021, 105, 104421.	4.3	15
98	Influence of Deposition Strategies on Residual Stress in Wire + Arc Additive Manufactured Titanium Ti-6Al-4V. <i>Metals</i> , 2022, 12, 253.	1.0	15
99	Weld Stress Mapping Using Neutron and Synchrotron X-Ray Diffraction. <i>Materials Science Forum</i> , 2002, 404-407, 599-604.	0.3	14
100	Elastoplastic deformation of Al/SiCp metal matrix composite studied by self-consistent modelling and neutron diffraction. <i>Acta Materialia</i> , 2004, 52, 1565-1577.	3.8	14
101	Effect of tool profile and fatigue loading on the local hardness around scratches in clad and unclad aluminium alloy 2024. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 527, 297-304.	2.6	14
102	Residual Stresses Induced by Laser Peening of Thin Aluminium Plates. <i>Materials Science Forum</i> , 0, 681, 504-509.	0.3	14
103	Thermodynamic calculations of oxygen self-diffusion in mixed-oxide nuclear fuels. <i>RSC Advances</i> , 2016, 6, 74018-74027.	1.7	14
104	Effect of texture on the residual stress response from laser peening of an aluminium-lithium alloy. <i>Journal of Materials Processing Technology</i> , 2018, 251, 317-329.	3.1	14
105	Effect of alloy temper on surface modification of aluminium 2024 by laser shock peening. <i>Surface and Coatings Technology</i> , 2018, 347, 123-135.	2.2	13
106	Evolution of residual stresses with fatigue crack growth in integral structures with crack retarders. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 523, 152-159.	2.6	12
107	Determination of Multiple Near-Surface Residual Stress Components in Laser Peened Aluminum Alloy via the Contour Method. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 4268-4275.	1.1	12
108	Fatigue performance of bonded crack retarders in the presence of cold worked holes and interference-fit fasteners. <i>International Journal of Fatigue</i> , 2017, 105, 111-118.	2.8	12



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109	Automotive magnetorheological dampers: modelling and parameter identification using contrast-based fruit fly optimisation. <i>Soft Computing</i> , 2018, 22, 8131-8149.	2.1	12
110	Machine Learning-Based Prediction and Optimisation System for Laser Shock Peening. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2888.	1.3	12
111	X-Ray Diffraction Measurement of the Residual Stresses Surrounding a Cold Expanded Hole. <i>Materials Science Forum</i> , 2002, 404-407, 185-190.	0.3	11
112	Comparative Neutron and Synchrotron X-Ray Diffraction Studies to Determine Residual Stress on an As-Welded AA2024 Plate. <i>Materials Science Forum</i> , 2005, 490-491, 223-228.	0.3	11
113	Advances in Residual Stress Modeling and Measurement for the Structural Integrity Assessment of Welded Thermal Power Plant. <i>Advanced Materials Research</i> , 0, 41-42, 391-400.	0.3	11
114	The effect of compressive fatigue loads on fatigue strength of non-load carrying specimens subjected to ultrasonic impact treatment. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2015, 59, 713-721.	1.3	11
115	Effect of impact damage on fatigue performance of structures reinforced with GLARE bonded crack retarders. <i>International Journal of Fatigue</i> , 2015, 80, 231-237.	2.8	11
116	Measurement and modelling of residual stress in wire-feed additively manufactured titanium. <i>Materials Science and Technology</i> , 2018, 34, 2250-2259.	0.8	11
117	Effect of thermal residual stresses on fatigue crack opening and propagation behavior in an Al/SiC p metal matrix composite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1995, 26, 3191-3198.	1.1	10
118	Evolution of Residual Stresses with Fatigue Crack Growth in a Variable Polarity Plasma Arc-Welded Aluminum Alloy Compact Tension Specimen. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2008, 39, 2370-2377.	1.1	10
119	Neutron Diffraction Residual Strain Measurements in Plasma Sprayed Nanostructured Hydroxyapatite Coatings for Orthopaedic Implants. <i>Materials Science Forum</i> , 0, 652, 309-314.	0.3	10
120	Evolution of stress fields and phase content in corroded zirconium cladding materials. <i>Surface and Coatings Technology</i> , 2017, 324, 140-145.	2.2	10
121	Probabilistic kernel machines for predictive monitoring of weld residual stress in energy systems. <i>Engineering Applications of Artificial Intelligence</i> , 2018, 71, 138-154.	4.3	10
122	Stress intensity factor correction for asymmetric through-thickness fatigue cracks at holes. <i>International Journal of Fatigue</i> , 2003, 25, 569-576.	2.8	9
123	Investigation of the Stress Fields Around a Fatigue Crack in Aluminium Alloy 5091. <i>Materials Science Forum</i> , 0, 571-572, 119-124.	0.3	9
124	Investigation of oxygen self-diffusion in PuO <sub>2</sub> by combining molecular dynamics with thermodynamic calculations. <i>RSC Advances</i> , 2016, 6, 103641-103649.	1.7	9
125	Analysis of Surface Roughness Influence in Non-Destructive Magnetic Measurements Applied to Reactor Pressure Vessel Steels. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8938.	1.3	9
126	Atomic force microscopy (AFM) for materials characterization. , 2016, , 1-16.		9



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127	Distortion and residual stresses in structures reinforced with titanium straps for improved damage tolerance. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 486, 104-111.	2.6	8
128	High Strain-Rate Material Model Validation for Laser Peening Simulation. <i>Journal of Engineering</i> , 2015, 2015, 150-157.	0.6	8
129	Observations of the stress developed in Si inclusions following plastic flow in the matrix of an Al-Si-Mg alloy. <i>Philosophical Magazine</i> , 2017, 97, 1398-1417.	0.7	8
130	The influence of temperature on deformation-induced martensitic transformation in 301 stainless steel. <i>Materials Science and Technology</i> , 2018, 34, 2114-2125.	0.8	8
131	TEM study of the effect of high-temperature thermal cycles on the stability of the Y-Al-O oxides in MA956 ODS steel. <i>Journal of Materials Research and Technology</i> , 2019, 8, 3719-3725.	2.6	8
132	Effect of frequency on high-temperature fatigue crack growth in a silicon carbide reinforced silicon nitride composite. <i>International Journal of Fatigue</i> , 2013, 47, 319-329.	2.8	7
133	Residual Stress Measurements on a Metal Matrix Composite Using the Contour Method with Brittle Fracture. <i>Advanced Materials Research</i> , 2014, 996, 349-354.	0.3	7
134	Incorporation of Y <sub>2</sub> O <sub>3</sub> Particles into 410L Stainless Steel by a Powder Metallurgy Route. <i>Journal of Materials Engineering and Performance</i> , 2014, 23, 2120-2130.	1.2	7
135	Evolution of residual stress during fatigue crack growth in an aluminium specimen with a bonded crack retarder. <i>Composite Structures</i> , 2014, 117, 12-16.	3.1	7
136	Germanium diffusion in aluminium: connection between point defect parameters with bulk properties. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 8421-8424.	1.1	7
137	Determination of normal and shear residual stresses from fracture surface mismatch. <i>Materials and Design</i> , 2015, 83, 176-184.	3.3	6
138	Energy-Resolved Neutron Imaging for Reconstruction of Strain Introduced by Cold Working. <i>Journal of Imaging</i> , 2018, 4, 48.	1.7	6
139	Life Extension Techniques for Aircraft Structures – Extending Durability and Promoting Damage Tolerance through Bonded Crack Retarders. , 2011, , 753-770.		6
140	Effect of Cyclic Loading on Strain Distribution in a Particulate-Reinforced Metal Matrix Composite. <i>Materials Science Forum</i> , 2002, 404-407, 541-546.	0.3	5
141	Influence of heat treatment processes on fatigue performance of particle reinforced aluminium alloys. <i>Materials Science and Technology</i> , 2002, 18, 1453-1457.	0.8	5
142	Neutron diffraction measurements of residual stress in a powder metallurgy component. <i>Scripta Materialia</i> , 2005, 52, 917-921.	2.6	5
143	Optimized tire force estimation using extended Kalman filter and fruit fly optimization. , 2017, , .		5
144	On full MAGV lateral dynamics exploitation: Autonomous drift control. , 2018, , .		5

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145	Effect of postprocessing thermal treatments on electronâ€beam powder bedâ€fused Ti6Al4V. Material Design and Processing Communications, 2021, 3, e168.	0.5	5
146	A technical review of the challenges of powder recycling in the laser powder bed fusion additive manufacturing process. Journal of Engineering, 2021, 2021, 97-103.	0.6	5
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