T James Marrow

List of Publications by Year
in descending order

192	6,793	66343	79698
papers	citations	42 h-index	73 g-index

195	195	195	4579
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Critical stripping current leads to dendrite formation on plating in lithium anode solid electrolyte cells. Nature Materials, 2019, 18, 1105-1111.	27.5	592
2	Observations of Intergranular Stress Corrosion Cracking in a Grain-Mapped Polycrystal. Science, 2008, 321, 382-385.	12.6	406
3	Three-dimensional grain mapping by x-ray diffraction contrast tomography and the use of Friedel pairs in diffraction data analysis. Review of Scientific Instruments, 2009, 80, 033905.	1.3	223
4	Visualizing plating-induced cracking in lithium-anode solid-electrolyte cells. Nature Materials, 2021, 20, 1121-1129.	27.5	221
5	3-D growth of a short fatigue crack within a polycrystalline microstructure studied using combined diffraction and phase-contrast X-ray tomography. Acta Materialia, 2011, 59, 590-601.	7.9	166
6	New opportunities for 3D materials science of polycrystalline materials at the micrometre lengthscale by combined use of X-ray diffraction and X-ray imaging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 524, 69-76.	5.6	164
7	In-situ X-ray computed tomography characterisation of 3D fracture evolution and image-based numerical homogenisation of concrete. Cement and Concrete Composites, 2017, 75, 74-83.	10.7	161
8	X-ray diffraction contrast tomography: a novel technique for three-dimensional grain mapping of polycrystals. II. The combined case. Journal of Applied Crystallography, 2008, 41, 310-318.	4.5	159
9	An approach to calculate the Jâ€integral by digital image correlation displacement field measurement. Fatigue and Fracture of Engineering Materials and Structures, 2012, 35, 971-984.	3.4	159
10	Correlations of electrochemical noise, acoustic emission and complementary monitoring techniques during intergranular stress-corrosion cracking of austenitic stainless steel. Corrosion Science, 2010, 52, 2015-2025.	6.6	114
11	Three-dimensional in situ observations of short fatigue crack growth in magnesium. Acta Materialia, 2011, 59, 6761-6771.	7.9	114
12	Three dimensional observations and modelling of intergranular stress corrosion cracking in austenitic stainless steel. Journal of Nuclear Materials, 2006, 352, 62-74.	2.7	108
13	High resolution X-ray tomography of short fatigue crack nucleation in austempered ductile cast iron. International Journal of Fatigue, 2004, 26, 717-725.	5.7	91
14	X-ray microtomographic observation of intergranular stress corrosion cracking in sensitised austenitic stainless steel. Materials Science and Technology, 2006, 22, 1068-1075.	1.6	91
15	Achieving Ultrahighâ€Rate Planar and Dendriteâ€Free Zinc Electroplating for Aqueous Zinc Battery Anodes. Advanced Materials, 2022, 34, e2202552.	21.0	88
16	Sodium/Na Î²â€³ Alumina Interface: Effect of Pressure on Voids. ACS Applied Materials & Interfaces, 2020, 12, 678-685.	8.0	86
17	In situ synchrotron tomographic quantification of granular and intragranular deformation during semi-solid compression of an equiaxed dendritic Alâ€“Cu alloy. Acta Materialia, 2014, 76, 371-380.	7.9	84
18	Microcracks in nuclear graphite and highly oriented pyrolytic graphite (HOPG). Journal of Nuclear Materials, 2008, 381, 199-203.	2.7	83

#	Article	IF	Citations
19	The microstructure of nuclear graphite binders. Carbon, 2008, 46, 62-71.	10.3	83
20	X-ray microtomography studies of localised corrosion and transitions to stress corrosion cracking. Materials Science and Technology, 2006, 22, 1076-1085.	1.6	81
21	Grain boundary structure and intergranular stress corrosion crack initiation in high temperature water of a thermally sensitised austenitic stainless steel, observed in situ. Corrosion Science, 2014, 85, 428-435.	6.6	80
22	3D Studies of Indentation by Combined X-Ray Tomography and Digital Volume Correlation. Key Engineering Materials, 0, 592-593, 14-21.	0.4	77
23	Analysis of Interfacial Effects in All-Solid-State Batteries with Thiophosphate Solid Electrolytes. ACS Applied Materials & Interfaces, 2020, 12, 9277-9291.	8.0	73
24	Yield behavior beneath hardness indentations in ductile metals, measured by three-dimensional computed X-ray tomography and digital volume correlation. Acta Materialia, 2015, 82, 468-482.	7.9	67
25	In situ observation of mechanical damage within a SiC-SiC ceramic matrix composite. Journal of Nuclear Materials, 2016, 481, 13-23.	2.7	67
26	Observation and quantification of three-dimensional crack propagation in poly-granular graphite. Engineering Fracture Mechanics, 2013, 110, 410-420.	4.3	64
27	Damage, crack growth and fracture characteristics of nuclear grade graphite using the Double Torsion technique. Journal of Nuclear Materials, 2011, 414, 32-43.	2.7	63
28	Three-dimensional crack observation, quantification and simulation in a quasi-brittle material. Acta Materialia, 2013, 61, 6276-6289.	7.9	62
29	Influence of milling on the development of stress corrosion cracks in austenitic stainless steel. Journal of Materials Processing Technology, 2015, 218, 32-37.	6.3	57
30	X-ray tomography observation of crack propagation in nuclear graphite. Materials Science and Technology, 2006, 22, 1045-1051.	1.6	54
31	In situ analysis of cracks in structural materials using synchrotron X-ray tomography and diffraction. Nuclear Instruments & Methods in Physics Research B, 2006, 246, 217-225.	1.4	52
32	In situ observation of intergranular crack nucleation in a grain boundary controlled austenitic stainless steel. Journal of Microscopy, 2009, 233, 423-431.	1.8	52
33	The effect of thermal oxidation on polycrystalline graphite studied by X-ray tomography. Carbon, 2005, 43, 765-774.	10.3	51
34	Numerical modelling of the effects of porosity changes on the mechanical properties of nuclear graphite. Journal of Nuclear Materials, 2006, 352, 1-5.	2.7	51
35	In situ measurement of the strains within a mechanically loaded polygranular graphite. Carbon, 2016, 96, 285-302.	10.3	51
36	An autonomous surface discontinuity detection and quantification method by digital image correlation and phase congruency. Optics and Lasers in Engineering, 2017, 96, 94-106.	3.8	49

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37	Hygrothermal aging and structural damage of a jute/poly (lactic acid) (PLA) composite observed by X-ray tomography. Composites Science and Technology, 2019, 173, 15-23.	7.8	48
38	J-Integral Calculation by Finite Element Processing of Measured Full-Field Surface Displacements. Experimental Mechanics, 2017, 57, 997-1009.	2.0	47
39	Observation of microstructure deformation and damage in nuclear graphite. Engineering Fracture Mechanics, 2008, 75, 3633-3645.	4.3	46
40	Nanotomography for understanding materials degradation. Scripta Materialia, 2010, 63, 835-838.	5.2	45
41	Synchrotron X-ray characterization of crack strain fields in polygranular graphite. Carbon, 2017, 124, 357-371.	10.3	45
42	A three-dimensional computational model for intergranular cracking. Computational Materials Science, 2006, 38, 442-453.	3.0	44
43	Fracture behaviour of radiolytically oxidised reactor core graphites: A view. Materials Science and Technology, 2010, 26, 899-907.	1.6	44
44	Microstructural characterisation of nuclear grade graphite. Journal of Nuclear Materials, 2008, 381, 152-157.	2.7	43
45	Flexural strength and defect behaviour of polygranular graphite under different states of stress. Carbon, 2013, 59, 325-336.	10.3	43
46	Characterization of polycrystalline materials using synchrotron X-ray imaging and diffraction techniques. Jom, 2010, 62, 22-28.	1.9	42
47	Time-resolved synchrotron tomographic quantification of deformation during indentation of an equiaxed semi-solid granular alloy. Acta Materialia, 2016, 105, 338-346.	7.9	40
48	Quantitative in situ study of short crack propagation in polygranular graphite by digital image correlation. Fatigue and Fracture of Engineering Materials and Structures, 2012, 35, 695-707.	3.4	39
49	Analysis of crack propagation in nuclear graphite using three-point bending of sandwiched specimens. Journal of Nuclear Materials, 2008, 372, 141-151.	2.7	38
50	Temperature Dependence of Lithium Anode Voiding in Argyrodite Solid-State Batteries. ACS Applied Materials & Interfaces, 2021, 13, 22708-22716.	8.0	38
51	Mesoscopic structure features in synthetic graphite. Materials and Design, 2018, 142, 268-278.	7.0	37
52	In situ observation of compression damage in a 3D needled-punched carbon fiber-silicon carbide ceramic matrix composite. Composite Structures, 2019, 210, 189-201.	5.8	36
53	A two-dimensional mesoscale model for intergranular stress corrosion crack propagationâ˜†. Acta Materialia, 2006, 54, 3493-3501.	7.9	35
54	Hydrogen-assisted stable crack growth in iron-3 wt% silicon steel. Acta Materialia, 1996, 44, 3125-3140.	7.9	34

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55	A quantitative three-dimensional in situ study of a short fatigue crack in a magnesium alloy. International Journal of Fatigue, 2014, 66, 183-193.	5.7	34
56	A new approach for DL-EPR testing of thermo-mechanically processed austenitic stainless steel. Corrosion Science, 2011, 53, 4213-4222.	6.6	33
57	The influence of lowâ€strain thermoâ€mechanical processing on grain boundary network characteristics in type 304 austenitic stainless steel. Journal of Microscopy, 2008, 230, 435-444.	1.8	32
58	In situ observation of crack nuclei in poly-granular graphite under ring-on-ring equi-biaxial and flexural loading. Engineering Fracture Mechanics, 2011, 78, 1756-1770.	4.3	32
59	Temperature effects on the mechanism of time independent hydrogen assisted fatigue crack propagation in steels. Acta Metallurgica Et Materialia, 1992, 40, 2059-2068.	1.8	31
60	Effect of thermomechanical process history on grain boundary control in an austenitic stainless steel. Scripta Materialia, 2008, 59, 554-557.	5.2	31
61	In situ quantitative three-dimensional characterisation of sub-indentation cracking in polycrystalline alumina. Journal of the European Ceramic Society, 2014, 34, 3127-3132.	5.7	30
62	Effect of mean stress on hydrogen assisted fatique crack propagation in duplex stainless steel. Acta Metallurgica Et Materialia, 1991, 39, 1367-1376.	1.8	29
63	In situ observation of short fatigue crack propagation in oxygenated water at elevated temperature and pressure. Corrosion Science, 2013, 68, 34-43.	6.6	29
64	Fatigue crack closure: A myth or a misconception?. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 2747-2763.	3.4	29
65	MICROSTRUCTURAL AND ENVIRONMENTAL EFFECTS ON FATIGUE CRACK PROPAGATION IN DUPLEX STAINLESS STEELS. Fatigue and Fracture of Engineering Materials and Structures, 1994, 17, 761-771.	3.4	28
66	Environment-assisted cracking of cast WE43-T6 magnesium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 387-389, 419-423.	5.6	28
67	Microstructural modelling of nuclear graphite using multi-phase models. Journal of Nuclear Materials, 2008, 380, 46-58.	2.7	27
68	Preliminary Evaluation of Digital Image Correlation for In-situ Observation of Low Temperature Atmospheric-Induced Chloride Stress Corrosion Cracking in Austenitic Stainless Steels. ECS Transactions, 2010, 25, 119-132.	0.5	27
69	Short fatigue cracks in austempered ductile cast iron (ADI). Fatigue and Fracture of Engineering Materials and Structures, 2000, 23, 425-434.	3.4	26
70	Failure analysis of the effects of porosity in thermally oxidised nuclear graphite using finite element modelling. Journal of Nuclear Materials, 2008, 381, 1-8.	2.7	26
71	Fracture behaviour of an anisotropic polygranular graphite (PGA). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 558, 265-277.	5.6	26
72	Multi-scale modeling of damage development in a thermal barrier coating. Surface and Coatings Technology, 2015, 276, 399-407.	4.8	26

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73	Rates of intergranular environment assisted cracking in three-dimensional model microstructures. Theoretical and Applied Fracture Mechanics, 2007, 48, 187-202.	4.7	25
74	Non-destructive analysis of micro texture and grain boundary character from X-ray diffraction contrast tomography. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 291-296.	1.4	25
75	Annealing of ion irradiation damage in nuclear graphite. Journal of Nuclear Materials, 2013, 434, 334-346.	2.7	25
76	Three-dimensional characterization and thermal property modelling of thermally oxidized nuclear graphite. Acta Materialia, 2008, 56, 4242-4254.	7.9	24
77	Damage development during flexural loading of a 5-directional braided C/C-SiC composite, characterized by X-ray tomography and digital volume correlation. Ceramics International, 2019, 45, 5601-5612.	4.8	24
78	Time-resolved synchrotron tomographic quantification of deformation-induced flow in a semi-solid equiaxed dendritic Alâ€“Cu alloy. Scripta Materialia, 2015, 103, 69-72.	5.2	23
79	Observation and simulation of indentation damage in a SiCâ€“SiCfibre ceramic matrix composite. Finite Elements in Analysis and Design, 2016, 110, 11-19.	3.2	23
80	Structure and flexural properties of 3D needled carbon fiber reinforced carbon and silicon carbide (C/C-SiC) composites fabricated by gaseous and liquid silicon infiltration. Ceramics International, 2019, 45, 17978-17986.	4.8	22
81	Computed tomography porosity and spherical indentation for determining cortical bone millimetre-scale mechanical properties. Scientific Reports, 2019, 9, 7416.	3.3	22
82	In situ X-ray tomography characterisation of 3D deformation of C/C-SiC composites loaded under tension. Composites Part A: Applied Science and Manufacturing, 2021, 145, 106390.	7.6	22
83	Mapping the evolution of density in 3D of thermally oxidised graphite for nuclear applications. Scripta Materialia, 2006, 54, 829-834.	5.2	21
84	Imaging Sodium Dendrite Growth in Allâ€Solidâ€State Sodium Batteries Using ²³Na T₂â€Weighted Magnetic Resonance Imaging. Angewandte Chemie - International Edition, 2021, 60, 2110-2115.	13.8	21
85	Unifying the effects of in and out-of-plane constraint on the fracture of ductile materials. Journal of the Mechanics and Physics of Solids, 2020, 141, 103956.	4.8	21
86	An Evaluation of the Double Torsion Technique. Experimental Mechanics, 2011, 51, 1511-1526.	2.0	20
87	A new method for predicting susceptibility of austenitic stainless steels to intergranular stress corrosion cracking. Materials and Design, 2020, 187, 108368.	7.0	20
88	Characterisation of slip and twin activity using digital image correlation and crystal plasticity finite element simulation: Application to orthorhombic Î±-uranium. Journal of the Mechanics and Physics of Solids, 2020, 135, 103800.	4.8	20
89	In situ observation of the deformation and fracture of an alumina-alumina ceramic-matrix composite at elevated temperature using x-ray computed tomography. Journal of the European Ceramic Society, 2021, 41, 4217-4230.	5.7	20
90	Fatigue crack propagation mechanisms in a thermally aged duplex stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 183, 91-101.	5.6	19

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91	Surface grain boundary engineering of shot-peened type 304 stainless steel. Journal of Materials Science, 2008, 43, 1270-1277.	3.7	19
92	Application of neutron imaging to detect and quantify fatigue cracking. International Journal of Mechanical Sciences, 2019, 159, 182-194.	6.7	19
93	In situ investigation of failure in 3D braided SiCf/SiC composites under flexural loading. Composite Structures, 2021, 270, 114067.	5.8	19
94	Fiveâ€parameter grain boundary analysis of a grain boundaryâ€“engineered austenitic stainless steel. Journal of Microscopy, 2009, 233, 417-422.	1.8	18
95	Effects of orientation, stress and exposure time on short intergranular stress corrosion crack behaviour in sensitised type 304 austenitic stainless steel. Fatigue and Fracture of Engineering Materials and Structures, 2012, 35, 359-373.	3.4	18
96	Three-dimensional observation and image-based modelling of thermal strains in polycrystalline alumina. Acta Materialia, 2013, 61, 7521-7533.	7.9	18
97	FEMME: A multi-scale Finite Element Microstructure MEshfree fracture model for quasi-brittle materials with complex microstructures. Engineering Fracture Mechanics, 2015, 147, 355-372.	4.3	18
98	Measurements by x-ray diffraction of the temperature dependence of lattice parameter and crystallite size for isostatically-pressed graphite. Carbon Trends, 2021, 4, 100071.	3.0	18
99	Fatigue crack nuclei in austempered ductile cast iron. Fatigue and Fracture of Engineering Materials and Structures, 2002, 25, 635-648.	3.4	17
100	3D Studies of Damage by Combined X-ray Tomography and Digital Volume Correlation. , 2014, 3, 1554-1559.		17
101	3D finite element modeling of water diffusion behavior of jute/PLA composite based on X-ray computed tomography. Composites Science and Technology, 2020, 199, 108313.	7.8	17
102	J-integral analysis: An EDXD and DIC comparative study for a fatigue crack. International Journal of Fatigue, 2020, 134, 105474.	5.7	17
103	The brittle/ductile transition in cubic stabilised zirconia. Journal of the European Ceramic Society, 1994, 14, 447-453.	5.7	16
104	Porosity characterization of fiber-reinforced ceramic matrix composite using synchrotron X-ray computed tomography. Journal of Instrumentation, 2016, 11, C03052-C03052.	1.2	16
105	Modelling the effects of surface finish on fatigue limit in austenitic stainless steels. Fatigue and Fracture of Engineering Materials and Structures, 2008, 31, 581-598.	3.4	15
106	A method for the 3-D quantification of bridging ligaments during crack propagation. Scripta Materialia, 2011, 65, 131-134.	5.2	15
107	Effect of surface machining on intergranular stress corrosion cracking (IGSCC) in sensitised type 304 austenitic stainless steel. Corrosion Engineering Science and Technology, 2016, 51, 383-391.	1.4	15
108	Quantifying yield behaviour in metals by X-ray nanotomography. Scientific Reports, 2016, 6, 34346.	3.3	15

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109	In situ measurement of elastic and total strains during ambient and high temperature deformation of a polygranular graphite. Carbon, 2020, 163, 308-323.	10.3	15
110	Measuring the brittle-to-ductile transition temperature of tungstenâ€“tantalum alloy using chevron-notched micro-cantilevers. Scripta Materialia, 2020, 180, 77-82.	5.2	15
111	THE FRACTURE MECHANISM IN 475Â°C EMBRITTLED FERRITIC STAINLESS STEELS. Fatigue and Fracture of Engineering Materials and Structures, 1996, 19, 919-933.	3.4	14
112	Application of electron backscattered diffraction to cleavage fracture in duplex stainless steel. Scripta Materialia, 1999, 40, 1395-1400.	5.2	14
113	Multifractal-based assessment of Gilsocarbon graphite microstructures. Carbon, 2016, 109, 711-718.	10.3	14
114	Multi-scale damage modelling in a ceramic matrix composite using a finite-element microstructure meshfree methodology. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150276.	3.4	14
115	Microstructure Characterization by X-Ray Computed Tomography of C/C-SiC Ceramic Composites Fabricated with Different Carbon Fiber Architectures. Applied Composite Materials, 2019, 26, 1247-1260.	2.5	14
116	Comparison of ultrafine-grain isotropic graphite prepared from microcrystalline graphite and pitch coke. Fuel, 2021, 290, 120055.	6.4	14
117	High temperature spherical nano-indentation of graphite crystals. Carbon, 2022, 191, 236-242.	10.3	14
118	Preparation of fatigue specimens with controlled surface characteristics. Journal of Materials Processing Technology, 2008, 203, 396-403.	6.3	13
119	Characterisation of grain boundary cluster compactness in austenitic stainless steel. Materials Science and Technology, 2010, 26, 670-675.	1.6	13
120	Method for the explicit insertion of microstructure in Cellular Automata Finite Element (CAFE) models based on an irregular tetrahedral Finite Element mesh: Application in a multi-scale Finite Element Microstructure MEshfree framework (FEMME). Finite Elements in Analysis and Design, 2015, 105, 56-62.	3.2	13
121	Three-dimensional displacement mapping of diffused Pt thermal barrier coatings via synchrotron X-ray computed tomography and digital volume correlation. Scripta Materialia, 2016, 115, 100-103.	5.2	13
122	Evaluation of Fracture Toughness Measurements Using Chevron-Notched Silicon and Tungsten Microcantilevers. Jom, 2019, 71, 3378-3389.	1.9	13
123	A method for fracture toughness measurement in trabecular bone using computed tomography, image correlation and finite element methods. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 109, 103838.	3.1	13
124	Ex-situ micro X-ray computed tomography tests and image-based simulation of UHPFRC beams under bending. Cement and Concrete Composites, 2021, 123, 104216.	10.7	13
125	3D Cellular Automata Finite Element Method with Explicit Microstructure: Modeling Quasi-brittle Fracture using Meshfree Damage Propagation. , 2014, 3, 1143-1148.		12
126	Obtaining the J-integral by diffraction-based crack-field strain mapping. Procedia Structural Integrity, 2016, 2, 2519-2526.	0.8	12

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127	Multi-scale modelling of nuclear graphite tensile strength using the site-bond lattice model. Carbon, 2016, 100, 273-282.	10.3	12
128	A multi-scale three-dimensional Cellular Automata fracture model of radiolytically oxidised nuclear graphite. Carbon, 2017, 121, 574-590.	10.3	12
129	In situ Observation of Compression Damage in a Three-Dimensional Braided Carbon Fiber Reinforced Carbon and Silicon Carbide (C/C-SiC) Ceramic Composite. Microscopy and Microanalysis, 2018, 24, 227-237.	0.4	12
130	J-integral analysis of the elastic strain fields of ferrite deformation twins using electron backscatter diffraction. Acta Materialia, 2021, 218, 117203.	7.9	12
131	THE FRACTURE MECHANISM OF 475Â°C EMBRITTLEMENT IN A DUPLEX STAINLESS STEEL. Fatigue and Fracture of Engineering Materials and Structures, 1996, 19, 935-947.	3.4	11
132	FAFNIR: Strategy and risk reduction in accelerator driven neutron sources for fusion materials irradiation data. Fusion Engineering and Design, 2014, 89, 2108-2113.	1.9	11
133	Measurement of crack bridging stresses in environment-assisted cracking of duplex stainless by synchrotron diffraction. Fatigue and Fracture of Engineering Materials and Structures, 2006, 29, 464-471.	3.4	10
134	RICH TOMOGRAPHY TECHNIQUES FOR THE ANALYSIS OF MICROSTRUCTURE AND DEFORMATION. International Journal of Computational Methods, 2014, 11, 1343006.	1.3	10
135	High-resolution, in-situ, tomographic observations of stress corrosion cracking. , 2008, , 439-447.		10
136	Combined evaluation of Young modulus and fracture toughness in small specimens of fine grained nuclear graphite using 3D image analysis. Journal of Nuclear Materials, 2022, 563, 153642.	2.7	10
137	In-situ scanning acoustic microscopy of crack bridging in alumina. Journal of the European Ceramic Society, 1994, 14, 111-116.	5.7	9
138	Detection and characterisation of intergranular stressâ€corrosion cracking on austenitic stainless steel. Materials and Corrosion - Werkstoffe Und Korrosion, 2012, 63, 664-673.	1.5	9
139	Threeâ€dimensional measurement and cohesive element modelling of deformation and damage in a 2.5â€dimensional woven ceramic matrix composite. Fatigue and Fracture of Engineering Materials and Structures, 2017, 40, 683-695.	3.4	9
140	Scanning Acoustic Microscopy Observations of High-Temperature Crack-Bridging Mechanisms in Alumina. Journal of the American Ceramic Society, 1993, 76, 2915-2918.	3.8	8
141	Intergranular crack nuclei in polycrystalline alumina. Engineering Fracture Mechanics, 2012, 95, 29-36.	4.3	8
142	Crack propagation in fine grained graphites under mode I and mixed-mode loading, as observed in situ by microtomography. Carbon, 2022, 193, 356-367.	10.3	8
143	Microstructural scale strain localisation in nuclear graphite. Journal of Nuclear Materials, 2008, 381, 171-176.	2.7	7
144	Application of an independent parallel reactions model on the annealing kinetics to irradiated graphite waste. Journal of Nuclear Materials, 2008, 381, 83-91.	2.7	7

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145	3D Cellular Automata fracture model for porous graphite microstructures. Nuclear Engineering and Design, 2017, 323, 202-208.	1.7	7
146	Procedure for accurate calculation of the Jâ€integral from digital volume correlation displacement data. Strain, 2020, 56, e12337.	2.4	7
147	Effect of irradiation swelling on the mechanical properties of unidirectional SiC/SiC composites: A numerical investigation at microstructural level. Journal of Nuclear Materials, 2022, 569, 153918.	2.7	7
148	THE CRACK INITIATION TOUGHNESS FOR BRITTLE FRACTURE OF SUPER DUPLEX STAINLESS STEEL. Fatigue and Fracture of Engineering Materials and Structures, 1997, 20, 1005-1014.	3.4	6
149	Mesoscale Mechanical Model for Intergranular Stress Corrosion Cracking and Implications for Microstructure Engineering. Journal of Pressure Vessel Technology, Transactions of the ASME, 2008, 130, .	0.6	6
150	In-Situ Observations of Intergranular Stress Corrosion Cracking. , 2008, , .		6
151	Grain boundary engineering for crack bridging. , 2008, , 69-79.		6
152	Influence of Twins on Short Fatigue Cracks in Type 316L Stainless Steel. Key Engineering Materials, 0, 465, 507-510.	0.4	6
153	In situ mapping of normal strains in the field of a growing fatigue crack in a steel weld using digital image correlation and energy dispersive synchrotron X-ray diffraction. International Journal of Fatigue, 2018, 115, 11-19.	5.7	6
154	Effects of polymer infiltration processing (PIP) temperature on the mechanical and thermal properties of Nextel 312 fibre SiCO ceramic matrix composites. Composites Part A: Applied Science and Manufacturing, 2021, 140, 106197.	7.6	6
155	Characterization of Material Properties Using an Inverse Method. Applied Mechanics and Materials, 2006, 5-6, 107-114.	0.2	5
156	Characterization of heterogeneity and nonlinearity in material properties of nuclear graphite using an inverse method. Journal of Nuclear Materials, 2008, 381, 158-164.	2.7	5
157	Application of an independent parallel reactions model on the annealing kinetics of BEPO irradiated graphite. Journal of Nuclear Materials, 2012, 427, 95-109.	2.7	5
158	Studying SiC/SiC Composites by X-Ray Tomography. Key Engineering Materials, 0, 602-603, 416-421.	0.4	5
159	Reducing risk and accelerating delivery of a neutron source for fusion materials research. Fusion Engineering and Design, 2014, 89, 273-279.	1.9	5
160	Observation of crack growth in a polycrystalline ferroelectric by synchrotron X-ray diffraction. Scripta Materialia, 2017, 140, 23-26.	5.2	5
161	Lattice strain and texture development in coarse-grained uranium â€“ a neutron diffraction study. Journal of Physics: Conference Series, 2018, 1106, 012012.	0.4	5
162	A Robust Finite Element-based Filter for Digital Image and Volume Correlation Displacement Data. Experimental Mechanics, 2021, 61, 901.	2.0	5

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163	In-Situ Observation of Crack Nucleation in Nuclear Graphite by Digital Image Correlation. , 2008, , .		5
164	THE BRITTLE FRACTURE OF 475Â°C EMBRITTLED CAST DUPLEX STAINLESS STEEL. Fatigue and Fracture of Engineering Materials and Structures, 1997, 20, 565-571.	3.4	4
165	Application of accelerator based neutron sources in fusion materials research. , 2013, , .		4
166	Synchrotron X-ray Tomographic Quantification of Deformation Induced Strain Localisation in Semi-solid Al- 15wt.%Cu. IOP Conference Series: Materials Science and Engineering, 2015, 84, 012079.	0.6	4
167	Data related to the mesoscopic structure of iso-graphite for nuclear applications. Data in Brief, 2018, 19, 651-659.	1.0	4
168	A 3D fullâ€field study of cracks in a nuclear graphite under mode I and mode II cyclic dwell loading conditions. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 1646-1657.	3.4	4
169	Crack field analysis by optical DIC of short cracks in Zircaloy-4. Procedia Structural Integrity, 2022, 39, 663-670.	0.8	4
170	Towards Modelling Intergranular Stress-Corrosion Cracks Using Experimentally Obtained Grain Topologies. , 2009, , .		3
171	Validating 3D two-parameter fracture mechanics models for structural integrity assessments. Theoretical and Applied Fracture Mechanics, 2019, 103, 102281.	4.7	3
172	Advanced 2D and 3D Digital Image Correlation of the Full-Field Displacements of Cracks and Defects. , 2015, , 56-69.		3
173	Nanostructures of carbon in nuclear graphite. Journal of Physics: Conference Series, 2008, 126, 012056.	0.4	2
174	Grain Tracking at the High Energy Materials Science Beamline of the Petra III Synchrotron Radiation Source. Materials Science Forum, 0, 652, 70-73.	0.3	2
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