Angus J Wilkinson

List of Publications by Year
in descending order

190 papers	10,595 citations	30070 54 h-index	37204 96 g-index
195 all docs	195 docs citations	195 times ranked	5842 citing authors

#	Article	IF	Citations
1	High-resolution elastic strain measurement from electron backscatter diffraction patterns: New levels of sensitivity. Ultramicroscopy, 2006, 106, 307-313.	1.9	555
2	A crystallographic mechanism for fatigue crack propagation through grain boundaries. Acta Materialia, 2000, 48, 4917-4927.	7.9	360
3	Strains, planes, and EBSD in materials science. Materials Today, 2012, 15, 366-376.	14.2	286
4	Electron diffraction based techniques in scanning electron microscopy of bulk materials. Micron, 1997, 28, 279-308.	2.2	282
5	High resolution mapping of strains and rotations using electron backscatter diffraction. Materials Science and Technology, 2006, 22, 1271-1278.	1.6	275
6	Determination of elastic strain fields and geometrically necessary dislocation distributions near nanoindents using electron back scatter diffraction. Philosophical Magazine, 2010, 90, 1159-1177.	1.6	259
7	Slip bandâ€“grain boundary interactions in commercial-purity titanium. Acta Materialia, 2014, 76, 1-12.	7.9	258
8	Anisotropy in the plastic flow properties of single-crystal Î± titanium determined from micro-cantilever beams. Acta Materialia, 2009, 57, 5693-5705.	7.9	257
9	Evolution of dislocation density distributions in copper during tensile deformation. Acta Materialia, 2013, 61, 7227-7239.	7.9	224
10	Measurement of geometrically necessary dislocation density with high resolution electron backscatter diffraction: Effects of detector binning and step size. Ultramicroscopy, 2013, 125, 1-9.	1.9	215
11	Measurement of plastic strain of polycrystalline material by electron backscatter diffraction. Nuclear Engineering and Design, 2005, 235, 713-725.	1.7	214
12	Quantification of plastic strain of stainless steel and nickel alloy by electron backscatter diffraction. Acta Materialia, 2006, 54, 539-548.	7.9	210
13	Experimental and computational studies of low cycle fatigue crack nucleation in a polycrystal. International Journal of Plasticity, 2007, 23, 273-295.	8.8	207
14	Controlling the Orientation, Edge Geometry, and Thickness of Chemical Vapor Deposition Graphene. ACS Nano, 2013, 7, 1351-1359.	14.6	182
15	Stress fields and geometrically necessary dislocation density distributions near the head of a blocked slip band. Acta Materialia, 2012, 60, 5773-5782.	7.9	180
16	Quantitative deformation studies using electron back scatter patterns. Acta Metallurgica Et Materialia, 1991, 39, 3047-3055.	1.8	163
17	High resolution electron backscatter diffraction measurements of elastic strain variations in the presence of larger lattice rotations. Ultramicroscopy, 2012, 114, 82-95.	1.9	160
18	The effect of crystal orientation on the indentation response of commercially pure titanium: experiments and simulations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 695-719.	2.1	155

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19	Measurement of residual elastic strain and lattice rotations with high resolution electron backscatter diffraction. Ultramicroscopy, 2011, 111, 1395-1404.	1.9	149
20	ã€ˆaã€‰ Prismatic, ã€ˆaã€‰ basal, and ã€ˆc+aã€‰ slip strengths of commercially pure Zr by micro-cantilever tests. Acta Materialia, 2015, 96, 249-257.	7.9	139
21	A new method for determining small misorientations from electron back scatter diffraction patterns. Scripta Materialia, 2001, 44, 2379-2385.	5.2	130
22	Electron backscatter diffraction study of dislocation content of a macrozone in hot-rolled Tiâ€“6Alâ€“4V alloy. Scripta Materialia, 2010, 62, 639-642.	5.2	130
23	On the mechanistic basis of deformation at the microscale in hexagonal close-packed metals. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140881.	2.1	128
24	Measurement of elastic strains and small lattice rotations using electron back scatter diffraction. Ultramicroscopy, 1996, 62, 237-247.	1.9	121
25	Tutorial: Crystal orientations and EBSD â€” Or which way is up?. Materials Characterization, 2016, 117, 113-126.	4.4	121
26	Factors affecting the accuracy of high resolution electron backscatter diffraction when using simulated patterns. Ultramicroscopy, 2010, 110, 1443-1453.	1.9	120
27	Geometrically necessary dislocation density distributions in Tiâ€“6Alâ€“4V deformed in tension. Acta Materialia, 2011, 59, 6489-6500.	7.9	113
28	Nanoindentation study of slip transfer phenomenon at grain boundaries. Journal of Materials Research, 2009, 24, 607-615.	2.6	107
29	Environmentally-assisted grain boundary attack as a mechanism of embrittlement in a nickel-based superalloy. Acta Materialia, 2017, 126, 361-371.	7.9	107
30	On the microtwinning mechanism in a single crystal superalloy. Acta Materialia, 2017, 135, 314-329.	7.9	102
31	Crystal plasticity analysis of micro-deformation, lattice rotation and geometrically necessary dislocation density. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 2509-2531.	2.1	98
32	Measuring anisotropy in Youngâ€™s modulus of copper using microcantilever testing. Journal of Materials Research, 2009, 24, 3268-3276.	2.6	94
33	Quantitative investigation of micro slip and localization in polycrystalline materials under uniaxial tension. International Journal of Plasticity, 2018, 108, 88-106.	8.8	94
34	A microcantilever investigation of size effect, solid-solution strengthening and second-phase strengthening for ã€ˆaã€‰ prism slip in alpha-Ti. Acta Materialia, 2011, 59, 5970-5981.	7.9	92
35	High resolution electron back-scatter diffraction analysis of thermally and mechanically induced strains near carbide inclusions in a superalloy. Acta Materialia, 2011, 59, 263-272.	7.9	92
36	Strong grain neighbour effects in polycrystals. Nature Communications, 2018, 9, 171.	12.8	92

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37	On the role of boron on improving ductility in a new polycrystalline superalloy. Acta Materialia, 2017, 124, 489-500.	7.9	90
38	Short communication: â€˜Low activation, refractory, high entropy alloys for nuclear applicationsâ€™. Journal of Nuclear Materials, 2019, 526, 151744.	2.7	87
39	The orientation and strain dependence of dislocation structure evolution in monotonically deformed polycrystalline copper. International Journal of Plasticity, 2015, 69, 102-117.	8.8	82
40	Local deformation patterns in Tiâ€“6Alâ€“4V under tensile, fatigue and dwell fatigue loading. International Journal of Fatigue, 2012, 43, 111-119.	5.7	80
41	Growth of {<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mn>11</mml:mn><mml:mrow><mml:mover accent="true"><mml:mn>2</mml:mn><mml:mo>Â¯</mml:mo></mml:mover></mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml twins in titanium: A combined experimental and modelling investigation of the local state of deformation. Acta Materialia, 2017, 126, 221-235.	7.9	79
42	Measurements of stress fields near a grain boundary: Exploring blocked arrays of dislocations in 3D. Acta Materialia, 2015, 96, 229-236.	7.9	76
43	High-resolution electron backscatter diffraction: An emerging tool for studying local deformation. Journal of Strain Analysis for Engineering Design, 2010, 45, 365-376.	1.8	73
44	Geometrically necessary dislocation densities in olivine obtained using high-angular resolution electron backscatter diffraction. Ultramicroscopy, 2016, 168, 34-45.	1.9	72
45	Modelling the threshold conditions for propagation of stage I fatigue cracks. Acta Materialia, 1998, 46, 379-390.	7.9	70
46	Assessment of residual stress fields at deformation twin tips and the surrounding environments. Acta Materialia, 2016, 105, 219-231.	7.9	70
47	Electron backscatter diffraction and electron channeling contrast imaging of tilt and dislocations in nitride thin films. Physical Review B, 2007, 75, .	3.2	69
48	Micro-mechanical measurements of fracture toughness of bismuth embrittled copper grain boundaries. Philosophical Magazine Letters, 2011, 91, 394-400.	1.2	66
49	A discrete dislocation plasticity study of the micro-cantilever size effect. Acta Materialia, 2015, 88, 271-282.	7.9	63
50	Electron channelling contrast imaging of interfacial defects in strained silicon-germanium layers on silicon. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1993, 68, 59-80.	0.6	62
51	Geometrically necessary dislocation density distributions in cyclically deformed Tiâ€“6Alâ€“4V. Acta Materialia, 2012, 60, 5516-5525.	7.9	61
52	Dislocation density distribution at slip band-grain boundary intersections. Acta Materialia, 2020, 182, 172-183.	7.9	60
53	On the composition of microtwins in a single crystal nickel-basedÂsuperalloy. Scripta Materialia, 2017, 127, 37-40.	5.2	59
54	Evolution of intragranular stresses and dislocation densities during cyclic deformation of polycrystalline copper. Acta Materialia, 2015, 94, 193-204.	7.9	57

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55	Rapid Nondestructive Analysis of Threading Dislocations in Wurtzite Materials Using the Scanning Electron Microscope. Physical Review Letters, 2012, 108, 135503.	7.8	56
56	Characterizing dislocation structures in bulk fatigued copper single crystals using electron channelling contrast imaging (ECCI). Philosophical Magazine Letters, 1997, 76, 237-246.	1.2	55
57	A self-aligning four-point bend testing rig and sample geometry effect in four-point bend fatigue. International Journal of Fatigue, 1999, 21, 889-894.	5.7	54
58	On the effects of reorientation and shear transfer during twin formation: Comparison between high resolution electron backscatter diffraction experiments and a crystal plasticity finite element model. International Journal of Plasticity, 2016, 84, 160-182.	8.8	54
59	Grain Boundary Serration in Nickel-Based Superalloy Inconel 600: Generation and Effects on Mechanical Behavior. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4324-4342.	2.2	53
60	Size effects resolve discrepancies in 40 years of work on low-temperature plasticity in olivine. Science Advances, 2017, 3, e1701338.	10.3	51
61	Accumulation of geometrically necessary dislocations near grain boundaries in deformed copper. Philosophical Magazine Letters, 2012, 92, 580-588.	1.2	50
62	Microstructural degradation of polycrystalline superalloys from oxidized carbides and implications on crack initiation. Scripta Materialia, 2018, 147, 59-63.	5.2	49
63	Advances in SEM-based diffraction studies of defects and strains in semiconductors. Journal of Electron Microscopy, 2000, 49, 299-310.	0.9	48
64	A synchrotron X-ray diffraction study of in situ biaxial deformation. Acta Materialia, 2015, 90, 46-58.	7.9	48
65	Electron channelling contrast imaging characterization of dislocation structures associated with extrusion and intrusion systems and fatigue cracks in copper single crystals. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 1473-1488.	0.6	46
66	Direct Detection of Electron Backscatter Diffraction Patterns. Physical Review Letters, 2013, 111, 065506.	7.8	46
67	Mechanical properties of ion-implanted tungstenâ€“5â€‰wt% tantalum. Physica Scripta, 2011, T145, 014076.	2.5	45
68	Cross-correlation based high resolution electron backscatter diffraction and electron channelling contrast imaging for strain mapping and dislocation distributions in InAlN thin films. Acta Materialia, 2017, 125, 125-135.	7.9	45
69	The distribution of plastic deformation in a metal matrix composite caused by straining transverse to the fibre direction. Acta Metallurgica Et Materialia, 1992, 40, 3357-3368.	1.8	44
70	A dislocation model for the two critical stress intensities required for threshold fatigue crack propagation. Scripta Materialia, 1996, 35, 1365-1371.	5.2	44
71	Assessing the precision of strain measurements using electron backscatter diffraction â€“ part 1: Detector assessment. Ultramicroscopy, 2013, 135, 126-135.	1.9	43
72	Nanoindentation and micro-mechanical fracture toughness of electrodeposited nanocrystalline Niâ€“W alloy films. Thin Solid Films, 2012, 520, 4369-4372.	1.8	42

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73	Mapping type III intragranular residual stress distributions in deformed copper polycrystals. Acta Materialia, 2013, 61, 5895-5904.	7.9	42
74	ã€ˆc+aã€‰ Dislocations in deformed Tiâ€“6Alâ€“4V micro-cantilevers. Acta Materialia, 2014, 76, 127-134.	7.9	41
75	Grain boundary serration in nickel alloy inconel 600: Quantification and mechanisms. Acta Materialia, 2019, 181, 352-366.	7.9	41
76	Modelling the effects of texture on the statistics of stage I fatigue crack growth. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 841-855.	0.6	40
77	Mapping strains at the nanoscale using electron back scatter diffraction. Superlattices and Microstructures, 2009, 45, 285-294.	3.1	40
78	Using transmission Kikuchi diffraction to study intergranular stress corrosion cracking in type 316 stainless steels. Micron, 2015, 75, 1-10.	2.2	39
79	Mapping the full lattice strain tensor of a single dislocation by high angular resolution transmission Kikuchi diffraction (HR-TKD). Scripta Materialia, 2019, 164, 36-41.	5.2	39
80	Examination of fatigue crack plastic zones using scanning-electron-microscope-based electron diffraction techniques. Philosophical Magazine Letters, 1996, 74, 145-152.	1.2	35
81	Fatigue damage at room temperature in aluminium single crystalsâ€”III. Lattice rotation. Acta Materialia, 1996, 44, 3477-3488.	7.9	35
82	Pattern matching analysis of electron backscatter diffraction patterns for pattern centre, crystal orientation and absolute elastic strain determination â€“ accuracy and precision assessment. Ultramicroscopy, 2019, 202, 87-99.	1.9	35
83	Modelling the initiation of cleavage fracture of ferritic steels. Acta Materialia, 2002, 50, 1229-1244.	7.9	34
84	Mechanism of the Î±-Zr to hexagonal-ZrO transformation and its impact on the corrosion performance of nuclear Zr alloys. Acta Materialia, 2019, 179, 328-341.	7.9	34
85	Control of texture in Ag and Ag-alloy substrates for superconducting tapes. Superconductor Science and Technology, 2000, 13, 1399-1407.	3.5	32
86	Elastic strain tensor measurement using electron backscatter diffraction in the SEM. Journal of Electron Microscopy, 2010, 59, S155-S163.	0.9	32
87	A review of advances and challenges in EBSD strain mapping. IOP Conference Series: Materials Science and Engineering, 2014, 55, 012020.	0.6	32
88	Tetragonality of Fe-C martensite â€“ a pattern matching electron backscatter diffraction analysis compared to X-ray diffraction. Acta Materialia, 2020, 195, 728-738.	7.9	32
89	Brittleâ€“ductile transitions in vanadium and ironâ€“chromium. Journal of Nuclear Materials, 2007, 367-370, 637-643.	2.7	31
90	The effect of pattern overlap on the accuracy of high resolution electron backscatter diffraction measurements. Ultramicroscopy, 2015, 155, 62-73.	1.9	31

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91	Measurement of probability distributions for internal stresses in dislocated crystals. Applied Physics Letters, 2014, 105, .	3.3	30
92	A synchrotron X-ray diffraction study of non-proportional strain-path effects. Acta Materialia, 2017, 124, 290-304.	7.9	30
93	Highâ€Angular Resolution Electron Backscatter Diffraction as a New Tool for Mapping Lattice Distortion in Geological Minerals. Journal of Geophysical Research: Solid Earth, 2019, 124, 6337-6358.	3.4	30
94	Micro-cantilever testing of âŸ¨aâŸ© prismatic slip in commercially pure Ti. Philosophical Magazine, 2011, 91, 1137-1149.	1.6	29
95	The effects of surface stress relaxation on electron channelling contrast images of dislocations. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1995, 72, 81-103.	0.6	28
96	Ductileâ€“brittle transition of polycrystalline iron and ironâ€“chromium alloys. Journal of Nuclear Materials, 2008, 378, 305-311.	2.7	28
97	Determination of the complete microscale residual stress tensor at a subsurface carbide particle in a single-crystal superalloy from free-surface EBSD. Acta Materialia, 2012, 60, 5300-5310.	7.9	28
98	Effect of sliding speed and counterface properties on the tribo-oxidation of brush seal material under dry sliding conditions. Tribology International, 2016, 96, 373-381.	5.9	28
99	Assessment of X-ray diffraction and crystal plasticity lattice strain evolutions under biaxial loading. International Journal of Plasticity, 2016, 83, 1-18.	8.8	28
100	AstroEBSD: exploring new space in pattern indexing with methods launched from an astronomical approach. Journal of Applied Crystallography, 2018, 51, 1525-1534.	4.5	28
101	Scratching the surface: Elastic rotations beneath nanoscratch and nanoindentation tests. Acta Materialia, 2020, 200, 116-126.	7.9	28
102	Investigation of elastic properties of single-crystal Î±-Ti using microcantilever beams. Philosophical Magazine Letters, 2010, 90, 503-512.	1.2	27
103	Assessing the precision of strain measurements using electron backscatter diffraction â€“ Part 2: Experimental demonstration. Ultramicroscopy, 2013, 135, 136-141.	1.9	27
104	In-service materials support for safety critical applications â€“ A case study of a high strength Ti-alloy using advanced experimental and modelling techniques. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 599, 166-173.	5.6	27
105	On the depth resolution of transmission Kikuchi diffraction (TKD) analysis. Ultramicroscopy, 2019, 205, 5-12.	1.9	27
106	Characterizing dislocation structure evolution during cyclic deformation using electron channelling contrast imaging. Philosophical Magazine, 2006, 86, 4965-4981.	1.6	26
107	Probing Deformation and Revealing Microstructural Mechanisms with Cross-Correlation-Based, High-Resolution Electron Backscatter Diffraction. Jom, 2013, 65, 1245-1253.	1.9	26
108	A study of dislocation transmission through a grain boundary in hcp Tiâ€“6Al using micro-cantilevers. Acta Materialia, 2016, 103, 416-423.	7.9	26

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109	Dislocation Interactions in Olivine Revealed by HRâ€EBSD. Journal of Geophysical Research: Solid Earth, 2017, 122, 7659-7678.	3.4	26
110	Indexing electron backscatter diffraction patterns with a refined template matching approach. Ultramicroscopy, 2019, 207, 112845.	1.9	26
111	Applications of multivariate statistical methods and simulation libraries to analysis of electron backscatter diffraction and transmission Kikuchi diffraction datasets. Ultramicroscopy, 2019, 196, 88-98.	1.9	26
112	Singleâ€crystal magnetic metal films on GaAs grown by electrodeposition. Applied Physics Letters, 1995, 67, 1316-1318.	3.3	25
113	Methods for determining elastic strains from electron backscatter diffraction and electron channelling patterns. Materials Science and Technology, 1997, 13, 79-84.	1.6	25
114	Strain Mapping Using Electron Backscatter Diffraction. , 2009, , 231-249.		25
115	Dislocation interactions during low-temperature plasticity of olivine and their impact on the evolution of lithospheric strength. Earth and Planetary Science Letters, 2020, 543, 116349.	4.4	24
116	Nanoindentation in multi-modal map combinations: a correlative approach to local mechanical property assessment. Journal of Materials Research, 2021, 36, 2235-2250.	2.6	24
117	On the state of deformation in a polycrystalline material in three-dimension: Elastic strains, lattice rotations, and deformation mechanisms. International Journal of Plasticity, 2018, 106, 145-163.	8.8	22
118	Cold creep of titanium: Analysis of stress relaxation using synchrotron diffraction and crystal plasticity simulations. Acta Materialia, 2020, 199, 561-577.	7.9	22
119	On the assessment of creep damage evolution in nickel-based superalloys through correlative HR-EBSD and cECCI studies. Acta Materialia, 2020, 185, 13-27.	7.9	21
120	Tensionâ€“compression asymmetry of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.svg"><mml:mrow><mml:mo>â€ˆ</mml:mo><mml:mi>c</mml:mi><mml:mo linebreak="goodbreak">+</mml:mo><mml:mi>a</mml:mi><mml:mo>â€‰</mml:mo></mml:mrow></mml:math> slip in Tiâ€“6Al. Scripta Materialia, 2020, 178, 119-123.	5.2	21
121	Study of dislocation structures near fatigue cracks using electron channelling contrast imaging technique (ECCI). Journal of Microscopy, 1999, 195, 197-203.	1.8	20
122	Grain boundary misorientation and thermal grooving in cube-textured Ni and Ni-Cr tape. IEEE Transactions on Applied Superconductivity, 2001, 11, 2923-2926.	1.7	20
123	Quantitative imaging of anti-phase domains by polarity sensitive orientation mapping using electron backscatter diffraction. Scientific Reports, 2017, 7, 10916.	3.3	20
124	Measurement of fatigue crack plastic zones in fine grained materials using electron backscattered diffraction. Materials Science and Technology, 2000, 16, 457-462.	1.6	19
125	Transmission electron microscopy of deformed Tiâ€“6Alâ€“4â€‰V micro-cantilevers. Philosophical Magazine, 2012, 92, 3290-3314.	1.6	19
126	The impact of water on slip system activity in olivine and the formation of bimodal crystallographic preferred orientations. Earth and Planetary Science Letters, 2019, 508, 51-61.	4.4	19

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127	The measurement of local plastic deformation in a metalâ€matrix composite by electron backâ€scatter patterns. Journal of Microscopy, 1993, 169, 255-261.	1.8	18
128	Decoherence in electron backscattering by kinked dislocations. Acta Crystallographica Section A: Foundations and Advances, 1999, 55, 234-245.	0.3	18
129	Influence of grain orientations on the initiation of fatigue damage in an Al-Li alloy. Journal of Microscopy, 1999, 195, 239-247.	1.8	17
130	High resolution measurements of strain and tilt distributions in SiGe mesas using electron backscatter diffraction. Applied Physics Letters, 2006, 89, 241910.	3.3	16
131	On the brittle-to-ductile transition of the as-cast TiVNbTa refractory high-entropy alloy. Materialia, 2020, 14, 100940.	2.7	16
132	On the secondary recrystallisation of MA754. Acta Materialia, 1998, 46, 2809-2821.	7.9	15
133	Observation of strain distributions in partially relaxed In0.2Ga0.8As on GaAs using electron channelling contrast imaging. Philosophical Magazine Letters, 1996, 73, 337-344.	1.2	14
134	Dislocation interactions in olivine control postseismic creep of the upper mantle. Nature Communications, 2021, 12, 3496.	12.8	14
135	Deformation studies of metal matrix composites using electron backscatter patterns. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 135, 189-193.	5.6	13
136	Diffraction effects and inelastic electron transport in angleâ€resolved microscopic imaging applications. Journal of Microscopy, 2017, 267, 330-346.	1.8	13
137	Interfacial stresses in a continuous fibre metal matrix composite. Scripta Metallurgica Et Materialia, 1992, 26, 387-392.	1.0	12
138	Quasiâ€cleavage fracture planes in spheroidized A533B steel. Journal of Microscopy, 2007, 227, 248-253.	1.8	12
139	Simulation of deformation twins and their interactions with cracks. Computational Materials Science, 2014, 89, 224-232.	3.0	12
140	Microstrain distribution mapping on CuInSe2 thin films by means of electron backscatter diffraction, X-ray diffraction, and Raman microspectroscopy. Ultramicroscopy, 2016, 169, 89-97.	1.9	12
141	Sample size effects on grain boundary sliding. Scripta Materialia, 2016, 114, 17-20.	5.2	12
142	High Angular Resolution Electron Backscatter Diffraction Studies of Tetragonality in Fe-C Martensitic Steels. Microscopy and Microanalysis, 2018, 24, 962-963.	0.4	12
143	J-integral analysis of the elastic strain fields of ferrite deformation twins using electron backscatter diffraction. Acta Materialia, 2021, 218, 117203.	7.9	12
144	Measuring Strains Using Electron Backscatter Diffraction. , 2000, , 231-246.		11

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145	Microstrain distributions in polycrystalline thin films measured by X-ray microdiffraction. Journal of Applied Crystallography, 2016, 49, 632-635.	4.5	10
146	Fabrication of biaxially textured Ni substrates and LaNiO/sub 3/ buffer layers for Tl-1223 thick films. IEEE Transactions on Applied Superconductivity, 1999, 9, 2252-2255.	1.7	9
147	Electron Backscatter Diffraction: An Important Tool for Analyses of Structureâ€“Property Relationships in Thin-Film Solar Cells. Jom, 2013, 65, 1222-1228.	1.9	8
148	Statistical effects in X-ray diffraction lattice strain measurements of ferritic steel using crystal plasticity. Materials and Design, 2018, 153, 159-165.	7.0	8
149	Forescattered electron imaging of nanoparticles in scanning electron microscopy. Materials Characterization, 2019, 155, 109814.	4.4	8
150	An in-situ synchrotron diffraction study of stress relaxation in titanium: Effect of temperature and oxygen on cold dwell fatigue. Acta Materialia, 2021, 213, 116937.	7.9	8
151	Evidence from ion channeling images for the elastic relaxation of a Si0.85Ge0.15 layer grown on a patterned Si substrate. Applied Physics Letters, 1995, 67, 3566-3568.	3.3	7
152	Microstructural Studies of Tl2Ba2Ca2Cu3Ox Thin Films on LaAlO3 and MgO Substrates.. Journal of Superconductivity and Novel Magnetism, 1998, 11, 71-72.	0.5	7
153	High temperature fatigue crack growth in powder processed nickel based superalloy U720Li. Materials Science and Technology, 2002, 18, 349-353.	1.6	7
154	Determination of the Structural and Luminescence Properties of Nitrides Using Electron Backscattered Diffraction and Photo- and Cathodoluminescence. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 532-536.	0.8	7
155	Measuring Local Mechanical Properties using FIB Machined Cantilevers. Materials Research Society Symposia Proceedings, 2009, 1185, 13.	0.1	7
156	On the Influence of Nb/Ti Ratio on Environmentally-Assisted Crack Growth in High-Strength Nickel-Based Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 3923-3937.	2.2	7
157	Low-temperature fracture mechanisms in a spheroidised reactor pressure vessel steel. International Journal of Fracture, 2007, 144, 121-129.	2.2	6
158	Characterisation of plastic zones around crack-tips in pure single-crystal tungsten using electron backscatter diffraction. IOP Conference Series: Materials Science and Engineering, 2009, 3, 012015.	0.6	6
159	Use of a dislocation-based boundary element model to extract crack growth rates from depth distributions of intergranular stress corrosion cracks. Acta Materialia, 2012, 60, 5101-5108.	7.9	6
160	Cold dwell behaviour of Ti6Al alloy: Understanding load shedding using digital image correlation and dislocation based crystal plasticity simulations. Journal of Materials Science and Technology, 2022, 128, 254-272.	10.7	6
161	Assessment of lattice strain, rotation and dislocation content using electron back-scatter diffraction. Journal of Physics: Conference Series, 2011, 326, 012004.	0.4	5
162	Detection of small lattice strains using beam rocking on a nuclear microprobe. Nuclear Instruments & Methods in Physics Research B, 1998, 136-138, 1240-1243.	1.4	4

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163	The Effects of Micro-Texture and Î²' Particle Distribution on Short Fatigue Crack Growth in an Al-Li 8090 Alloy. Materials Science Forum, 2000, 331-337, 1549-1554.	0.3	4
164	Characterisation of nitride thin films by electron backscatter diffraction and electron channelling contrast imaging. Materials Science and Technology, 2006, 22, 1352-1358.	1.6	4
165	Dislocation modeling of quasi-static crack propagation in an elasto-plastic medium. International Journal of Fracture, 2010, 164, 103-115.	2.2	3
166	Indexing Electron Backscatter Diffraction Patterns with a Refined Template Matching Approach. Microscopy and Microanalysis, 2019, 25, 1962-1963.	0.4	3
167	Microstructural Evolution of Mechanically Deformed Polycrystalline Silicon for Kerfless Photovoltaics. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800578.	1.8	3
168	Methods for determining elastic strains from electron backscatter diffraction and electron channelling patterns. Materials Science and Technology, 1997, 13, 79-84.	1.6	3
169	The Role of Texture-Related Mobility in the Secondary Recrystallization of ODS Alloys. Materials Science Forum, 1996, 204-206, 443-448.	0.3	2
170	Orientation Dependence of the High Cycle Fatigue Properties in a Hot-Cross Rolled Al-Li 8090 Alloy Plate. Materials Science Forum, 2002, 396-402, 1279-1284.	0.3	2
171	Electron Channeling and Ion Channeling Contrast Imaging of Dislocations in Nitride Thin Films. Microscopy and Microanalysis, 2008, 14, 1194-1195.	0.4	2
172	Characterization of Elastic Strain Field and Geometrically Necessary Dislocation Distribution in Stress Corrosion Cracking of 316 Stainless Steels by Transmission Kikuchi Diffraction. Microscopy and Microanalysis, 2015, 21, 605-606.	0.4	2
173	High-Resolution Electron Backscatter Diffraction in III-Nitride Semiconductors. Microscopy and Microanalysis, 2015, 21, 2217-2218.	0.4	2
174	Surface Evolution of Lithium Titanate upon Electrochemical Cycling Using a Combination of Surface Specific Characterization Techniques. Advanced Materials Interfaces, 2020, 7, 1902164.	3.7	2
175	Ex Situ and In Situ Studies of Radiation Damage Mechanisms in Zr-Nb Alloys. , 2021, , 408-434.		2
176	A Multiple Slip Plane Model for Crack-Tip Plasticity. Materials Research Society Symposia Proceedings, 1999, 578, 309.	0.1	1
177	Deformation Textures. , 2001, , 2022-2026.		1
178	Non-destructive imaging of residual strains in GaN and their effect on optical and electrical properties using correlative lightâ€“electron microscopy. Journal of Applied Physics, 2022, 131, 075303.	2.5	1
179	Faceted Voids and Grain Orientation at Solid State Diffusion Bonded Interfaces between Cu and Single Crystal Cubic ZrO₂. Materials Science Forum, 1996, 207-209, 253-256.	0.3	0
180	Strain Tensor Mapping at the Nanoscale using Electron Back Scatter Diffraction. Microscopy and Microanalysis, 2006, 12, 66-67.	0.4	0

#	Article	IF	Citations
181	Characterisation of Epitaxial Lateral Overgrown GaN by Electron Backscatter Diffraction Correlated with Cross-Sectional Cathodoluminescence Spectroscopy. Microscopy and Microanalysis, 2006, 12, 1516-1517.	0.4	0
182	Strain Mapping with Electron Back Scatter Diffraction: Sensitivity Studies and Pattern Remapping. Microscopy and Microanalysis, 2013, 19, 684-685.	0.4	0
183	Electron Channeling Contrast Imaging of Defects in III-Nitride Semiconductors. Microscopy and Microanalysis, 2014, 20, 1024-1025.	0.4	0
184	Comparison of Techniques for Strain Measurements in CuInSe2 Absorber Layers of Thin-film Solar Cells. Microscopy and Microanalysis, 2014, 20, 1464-1465.	0.4	0
185	Applications of Multivariate Statistical Methods to Analysis of Electron Backscatter Diffraction and Transmission Kikuchi Diffraction Datasets. Microscopy and Microanalysis, 2017, 23, 544-545.	0.4	0
186	Mapping Anti-phase Domains by Polarity Sensitive Orientation Imaging Using Electron Backscatter Diffraction. Microscopy and Microanalysis, 2017, 23, 1522-1523.	0.4	0
187	Thin Film Electrodes: Surface Evolution of Lithium Titanate upon Electrochemical Cycling Using a Combination of Surface Specific Characterization Techniques (Adv. Mater. Interfaces 11/2020). Advanced Materials Interfaces, 2020, 7, 2070062.	3.7	0
188	Effect of sample thinning on strains and lattice rotations measured from Transmission Kikuchi diffraction in the SEM. Ultramicroscopy, 2021, 225, 113267.	1.9	0
189	Characterization of Nitride Thin Films by Electron Backscatter Diffraction and Electron Channeling Contrast Imaging. Materials Research Society Symposia Proceedings, 2005, 892, 614.	0.1	0
190	Macroscopic analysis of time dependent plasticity in Ti alloys. Journal of Materials Science and Technology, 2022, , .	10.7	0