

Alexander M. Korsunsky

List of Publications by Year in descending order

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455
papers

10,382
citations

38660

50
h-index

64668

79
g-index

479
all docs

479
docs citations

479
times ranked

8821
citing authors

#	ARTICLE	IF	CITATIONS
1	On the hardness of coated systems. <i>Surface and Coatings Technology</i> , 1998, 99, 171-183.	2.2	518
2	Ultrafast Three-Dimensional Imaging of Lattice Dynamics in Individual Gold Nanocrystals. <i>Science</i> , 2013, 341, 56-59.	6.0	264
3	Solution of Crack Problems. <i>Solid Mechanics and Its Applications</i> , 1996, , .	0.1	263
4	3D-printed PEEK-carbon fiber (CF) composites: Structure and thermal properties. <i>Composites Science and Technology</i> , 2018, 164, 319-326.	3.8	185
5	A review of experimental approaches to fracture toughness evaluation at the micro-scale. <i>Materials and Design</i> , 2019, 173, 107762.	3.3	167
6	A Na ⁺ Superionic Conductor for Room-Temperature Sodium Batteries. <i>Scientific Reports</i> , 2016, 6, 32330.	1.6	160
7	Residual stress evaluation at the micrometer scale: Analysis of thin coatings by FIB milling and digital image correlation. <i>Surface and Coatings Technology</i> , 2010, 205, 2393-2403.	2.2	152
8	Focused ion beam ring drilling for residual stress evaluation. <i>Materials Letters</i> , 2009, 63, 1961-1963.	1.3	146
9	Comparative assessment of dissipated energy and other fatigue criteria. <i>International Journal of Fatigue</i> , 2007, 29, 1990-1995.	2.8	141
10	A neutron-diffraction study of the low-cycle fatigue behaviour of an austenitic stainless steel 316. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010, 66, s125-s125.	0.3	140
11	Crack growth micro-mechanisms in the IN718 alloy under the combined influence of fatigue, creep and oxidation. <i>International Journal of Fatigue</i> , 2009, 31, 1966-1977.	2.8	119
12	Composite NASICON (Na ₃ Zr ₂ Si ₂ PO ₁₂) Solid-State Electrolyte with Enhanced Na ⁺ Ionic Conductivity: Effect of Liquid Phase Sintering. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 40125-40133.	4.0	115
13	Advances in additive manufacturing process simulation: Residual stresses and distortion predictions in complex metallic components. <i>Materials and Design</i> , 2020, 193, 108779.	3.3	113
14	On the application of the work-of-indentation approach to depth-sensing indentation experiments in coated systems. <i>Surface and Coatings Technology</i> , 2001, 137, 217-224.	2.2	112
15	A review of geometrical and microstructural size effects in micro-scale deformation processing of metallic alloy components. <i>International Journal of Machine Tools and Manufacture</i> , 2016, 109, 94-125.	6.2	109
16	Separating plasticity-induced closure and residual stress contributions to fatigue crack retardation following an overload. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 98, 222-235.	2.3	108
17	Evaluation of residual stresses and strains using the Eigenstrain Reconstruction Method. <i>International Journal of Solids and Structures</i> , 2010, 47, 1678-1686.	1.3	106
18	Variational eigenstrain analysis of residual stresses in a welded plate. <i>International Journal of Solids and Structures</i> , 2007, 44, 4574-4591.	1.3	89

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19	On the fragmentation of active material secondary particles in lithium ion battery cathodes induced by charge cycling. <i>Extreme Mechanics Letters</i> , 2016, 9, 449-458.	2.0	86
20	The modelling of residual stresses due to surface peening using eigenstrain distributions. <i>Journal of Strain Analysis for Engineering Design</i> , 2005, 40, 817-824.	1.0	83
21	Modelling of the hardness of electroplated nickel coatings on copper substrates. <i>Surface and Coatings Technology</i> , 2000, 127, 1-8.	2.2	82
22	A review of micro-scale focused ion beam milling and digital image correlation analysis for residual stress evaluation and error estimation. <i>Surface and Coatings Technology</i> , 2015, 283, 373-388.	2.2	81
23	Highly stretchable two-dimensional auxetic metamaterial sheets fabricated via direct-laser cutting. <i>International Journal of Mechanical Sciences</i> , 2020, 167, 105242.	3.6	81
24	An analysis of macro- and micro-scale residual stresses of Type I, II and III using FIB-DIC micro-ring-core milling and crystal plasticity FE modelling. <i>International Journal of Plasticity</i> , 2017, 98, 123-138.	4.1	79
25	Mapping two-dimensional state of strain using synchrotron X-ray diffraction. <i>Scripta Materialia</i> , 1998, 39, 1705-1712.	2.6	77
26	Indentation hardness evaluation of cathodic arc deposited thin hard coatings. <i>Surface and Coatings Technology</i> , 2001, 139, 63-74.	2.2	77
27	Nano-structural changes in Li-ion battery cathodes during cycling revealed by FIB-SEM serial sectioning tomography. <i>Journal of Materials Chemistry A</i> , 2015, 3, 18171-18179.	5.2	74
28	Eigenstrain reconstruction of residual strains in an additively manufactured and shot peened nickel superalloy compressor blade. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 320, 335-351.	3.4	74
29	A nonlocal coupled damage-plasticity model for the analysis of ductile failure. <i>International Journal of Plasticity</i> , 2015, 64, 56-75.	4.1	73
30	Crystallochemical aspects of solid state reactions in mechanically alloyed Al-Cu-Fe quasicrystalline powders. <i>Acta Materialia</i> , 2001, 49, 1821-1833.	3.8	67
31	High Li ion conductivity in a garnet-type solid electrolyte via unusual site occupation of the doping Ca ions. <i>Materials and Design</i> , 2016, 93, 232-237.	3.3	67
32	Grain refinement and fatigue strengthening mechanisms in as-extruded Mg-6Zn-0.5Zr and Mg-10Gd-3Y-0.5Zr magnesium alloys by shot peening. <i>International Journal of Plasticity</i> , 2013, 49, 16-35.	4.1	66
33	Multi-scale mechanisms of twinning-detwinning in magnesium alloy AZ31B simulated by crystal plasticity modeling and validated via in situ synchrotron XRD and in situ SEM-EBSD. <i>International Journal of Plasticity</i> , 2019, 119, 43-56.	4.1	64
34	Three-dimensional crack observation, quantification and simulation in a quasi-brittle material. <i>Acta Materialia</i> , 2013, 61, 6276-6289.	3.8	62
35	Nanoscale chemical mapping of Li-ion battery cathode material by FIB-SEM and TOF-SIMS multi-modal microscopy. <i>Nano Energy</i> , 2015, 17, 254-260.	8.2	62
36	Micro selective laser melting of NiTi shape memory alloy: Defects, microstructures and thermal/mechanical properties. <i>Optics and Laser Technology</i> , 2020, 131, 106374.	2.2	61

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37	Residual stresses in Linear Friction Welding of aluminium alloys. <i>Materials & Design</i> , 2013, 50, 360-369.	5.1	60
38	Influence of heat treatment on fatigue behaviour of high-strength Mg-10Gd-3Y alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 6053-6063.	2.6	59
39	Imaging transient melting of a nanocrystal using an X-ray laser. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 7444-7448.	3.3	59
40	Photoluminescence Segmentation within Individual Hexagonal Monolayer Tungsten Disulfide Domains Grown by Chemical Vapor Deposition. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 15005-15014.	4.0	59
41	A critical comparison between XRD and FIB residual stress measurement techniques in thin films. <i>Thin Solid Films</i> , 2014, 572, 224-231.	0.8	58
42	Residual elastic strain due to laser shock peening: Modelling by eigenstrain distribution. <i>Journal of Strain Analysis for Engineering Design</i> , 2006, 41, 195-204.	1.0	57
43	Development of an approach to constitutive modelling of concrete: Isotropic damage coupled with plasticity. <i>International Journal of Solids and Structures</i> , 2008, 45, 5483-5501.	1.3	56
44	Improvement of fatigue properties by shot peening for Mg-10Gd-3Y alloys under different conditions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 5935-5944.	2.6	56
45	Eigenstrain analysis of residual strains and stresses. <i>Journal of Strain Analysis for Engineering Design</i> , 2009, 44, 29-43.	1.0	55
46	A study of overload effect on fatigue crack propagation using EBSD, FIB-DIC and FEM methods. <i>Engineering Fracture Mechanics</i> , 2016, 167, 210-223.	2.0	54
47	The influence of welding procedure and plate geometry on residual stresses in thick components. <i>International Journal of Solids and Structures</i> , 2016, 80, 420-429.	1.3	54
48	Nanoscale residual stress depth profiling by Focused Ion Beam milling and eigenstrain analysis. <i>Materials and Design</i> , 2018, 145, 55-64.	3.3	54
49	Mechanical and microstructural characterization of 2124Al/25vol.%SiCp joints obtained by linear friction welding (LFW). <i>Composites Part A: Applied Science and Manufacturing</i> , 2010, 41, 1028-1037.	3.8	52
50	An eigenstrain-based finite element model and the evolution of shot peening residual stresses during fatigue of GW103 magnesium alloy. <i>International Journal of Fatigue</i> , 2012, 42, 284-295.	2.8	51
51	Synchrotron X-ray quantitative evaluation of transient deformation and damage phenomena in a single nickel-rich cathode particle. <i>Energy and Environmental Science</i> , 2020, 13, 3556-3566.	15.6	51
52	Crack tip deformation fields and fatigue crack growth rates in Ti-6Al-4V. <i>International Journal of Fatigue</i> , 2009, 31, 1771-1779.	2.8	50
53	The effect of eigenstrain induced by ion beam damage on the apparent strain relief in FIB-DIC residual stress evaluation. <i>Materials and Design</i> , 2016, 92, 649-658.	3.3	50
54	Fast residual stress mapping using energy-dispersive synchrotron X-ray diffraction on station 16.3 at the SRS. <i>Journal of Synchrotron Radiation</i> , 2002, 9, 77-81.	1.0	49

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55	An analysis of fatigue failure mechanisms in an additively manufactured and shot peened IN 718 nickel superalloy. <i>Materials and Design</i> , 2020, 191, 108605.	3.3	48
56	Evaluation and analysis of residual stresses due to foreign object damage. <i>Mechanics of Materials</i> , 2007, 39, 199-211.	1.7	46
57	Structure-morphology correlation in electrospun fibers of semicrystalline polymers by simultaneous synchrotron SAXS-WAXD. <i>Polymer</i> , 2015, 63, 154-163.	1.8	46
58	A state-of-the-art review of micron-scale spatially resolved residual stress analysis by FIB-DIC ring-core milling and other techniques. <i>Journal of Strain Analysis for Engineering Design</i> , 2015, 50, 426-444.	1.0	46
59	In situ neutron diffraction investigation of texture-dependent Shape Memory Effect in a near equiatomic NiTi alloy. <i>Acta Materialia</i> , 2021, 202, 135-148.	3.8	45
60	Micro-scale measurement & FEM modelling of residual stresses in AA6082-T6 Al alloy generated by wire EDM cutting. <i>Journal of Materials Processing Technology</i> , 2020, 275, 116373.	3.1	44
61	Intergranular stresses in polycrystalline fatigue: diffraction measurement and self-consistent modelling. <i>Engineering Fracture Mechanics</i> , 2004, 71, 805-812.	2.0	43
62	Development and characterization of low friction coatings for protection against fretting wear in aerospace components. <i>Thin Solid Films</i> , 2008, 516, 5690-5699.	0.8	43
63	Uncertainty quantification of residual stress evaluation by the FIB-DIC ring-core method due to elastic anisotropy effects. <i>International Journal of Solids and Structures</i> , 2016, 87, 61-69.	1.3	43
64	Strain tomography of polycrystalline zirconia dental prostheses by synchrotron X-ray diffraction. <i>Acta Materialia</i> , 2011, 59, 2501-2513.	3.8	42
65	Residual stress measurement in thin films at sub-micron scale using Focused Ion Beam milling and imaging. <i>Thin Solid Films</i> , 2012, 520, 2073-2076.	0.8	42
66	Strengthening mechanisms in an Al-Fe-Cr-Ti nano-quasicrystalline alloy and composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 672, 175-183.	2.6	42
67	How to connect two scales of behaviour in constitutive modelling of geomaterials. <i>Geotechnique Letters</i> , 2012, 2, 129-134.	0.6	41
68	An Arrhenius equation-based model to predict the residual stress relief of post weld heat treatment of Ti-6Al-4V plate. <i>Journal of Manufacturing Processes</i> , 2018, 32, 763-772.	2.8	41
69	Residual stresses in single particle splat of metal cold spray process – Numerical simulation and direct measurement. <i>Materials Letters</i> , 2018, 230, 152-156.	1.3	41
70	Residual Strain Measurement by Synchrotron Diffraction. <i>Materials Science Forum</i> , 2002, 404-407, 1-12.	0.3	40
71	Multiple-length-scale deformation analysis in a thermoplastic polyurethane. <i>Nature Communications</i> , 2015, 6, 6583.	5.8	40
72	The principle of strain reconstruction tomography: Determination of quench strain distribution from diffraction measurements. <i>Acta Materialia</i> , 2006, 54, 2101-2108.	3.8	39

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73	The character of dislocation structure evolution in nanocrystalline FCC Ni-Co alloys prepared by high-energy mechanical milling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999, 271, 196-205.	2.6	38
74	Work of indentation approach to the analysis of hardness and modulus of thin coatings. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 423, 28-35.	2.6	38
75	Evaluation of the overload effect on fatigue crack growth with the help of synchrotron XRD strain mapping. <i>Engineering Fracture Mechanics</i> , 2010, 77, 3216-3226.	2.0	38
76	Dissipated energy and fretting damage in CoCrAlY-MoS ₂ coatings. <i>Tribology International</i> , 2010, 43, 676-684.	3.0	38
77	Nanoscale structural damage due to focused ion beam milling of silicon with Ga ions. <i>Materials Letters</i> , 2018, 213, 346-349.	1.3	38
78	Separating macro- (Type I) and micro- (Type II+III) residual stresses by ring-core FIB-DIC milling and eigenstrain modelling of a plastically bent titanium alloy bar. <i>Acta Materialia</i> , 2018, 156, 43-51.	3.8	38
79	The principle of equivalent eigenstrain for inhomogeneous inclusion problems. <i>International Journal of Solids and Structures</i> , 2014, 51, 4477-4484.	1.3	37
80	A constitutive modelling framework featuring two scales of behaviour: Fundamentals and applications to quasi-brittle failure. <i>Engineering Fracture Mechanics</i> , 2014, 115, 221-240.	2.0	37
81	Quantifying eigenstrain distributions induced by focused ion beam damage in silicon. <i>Materials Letters</i> , 2016, 185, 47-49.	1.3	36
82	An experimental and numerical analysis of residual stresses in a TIG weldment of a single crystal nickel-base superalloy. <i>Journal of Manufacturing Processes</i> , 2020, 53, 190-200.	2.8	36
83	A simplified FEM eigenstrain residual stress reconstruction for surface treatments in arbitrary 3D geometries. <i>International Journal of Mechanical Sciences</i> , 2018, 138-139, 457-466.	3.6	35
84	Feasibility study of neutron strain tomography. <i>Procedia Engineering</i> , 2009, 1, 185-188.	1.2	34
85	Effect of microstructures and texture development on tensile properties of Mg-10Gd-3Y alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 2250-2258.	2.6	34
86	Reconstruction of axisymmetric strain distributions via neutron strain tomography. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012, 270, 28-35.	0.6	33
87	Residual stresses and microstructure in Powder Bed Direct Laser Deposition (PB DLD) samples. <i>International Journal of Material Forming</i> , 2015, 8, 245-254.	0.9	33
88	Mitigated phase transition during first cycle of a Li-rich layered cathode studied by in operando synchrotron X-ray powder diffraction. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 4745-4752.	1.3	33
89	Finite element modelling and diffraction measurement of elastic strains during tensile deformation of HCP polycrystals. <i>Computational Materials Science</i> , 2008, 44, 131-137.	1.4	32
90	Symbolic and numerical solution of the axisymmetric indentation problem for a multilayered elastic coating. <i>International Journal of Solids and Structures</i> , 2013, 50, 2798-2807.	1.3	32

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91	Design and mechanical properties of 3D-printed auxetic honeycomb structure. <i>Materials Today Communications</i> , 2020, 24, 101173.	0.9	32
92	Inverse Eigenstrain Analysis of the Effect of Non-uniform Sample Shape on the Residual Stress Due to Shot Peening. <i>Experimental Mechanics</i> , 2011, 51, 165-174.	1.1	31
93	On The Use Of Vector J-Integral In Crack Growth Criteria For Brittle Solids. <i>International Journal of Fracture</i> , 2005, 133, L39-L46.	1.1	30
94	Operando X-ray Absorption Spectroscopy Study of Atomic Phase Reversibility with Wavelet Transform in the Lithium-Rich Manganese Based Oxide Cathode. <i>Chemistry of Materials</i> , 2016, 28, 4191-4203.	3.2	30
95	Influence of Particle Velocity When Propelled Using N ₂ or N ₂ -He Mixed Gas on the Properties of Cold-Sprayed Ti6Al4V Coatings. <i>Coatings</i> , 2018, 8, 327.	1.2	30
96	Focused ion beam four-slot milling for Poisson's ratio and residual stress evaluation at the micron scale. <i>Surface and Coatings Technology</i> , 2014, 251, 151-161.	2.2	29
97	Explicit formulae for the internal stress in spherical particles of active material within lithium ion battery cathodes during charging and discharging. <i>Materials & Design</i> , 2015, 69, 247-252.	5.1	29
98	Strain softening of nano-scale fuzzy interfaces causes Mullins effect in thermoplastic polyurethane. <i>Scientific Reports</i> , 2017, 7, 916.	1.6	29
99	Generalised residual stress depth profiling at the nanoscale using focused ion beam milling. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 125, 488-501.	2.3	29
100	Mechanical properties of thin carbon overcoats. <i>Tribology International</i> , 1998, 31, 547-551.	3.0	28
101	Quasicrystalline phase formation by heating a mechanically alloyed Al ₆₅ Cu ₂₃ Fe ₁₂ powder mixture. <i>Journal of Non-Crystalline Solids</i> , 2002, 312-314, 522-526.	1.5	28
102	Energy calibration and full-pattern refinement for strain analysis using energy-dispersive and monochromatic X-ray diffraction. <i>Journal of Applied Crystallography</i> , 2005, 38, 661-667.	1.9	28
103	Analysis of strain error sources in micro-beam Laue diffraction. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 660, 130-137.	0.7	28
104	Diametrical growth in the forward flow forming process: simulation, validation, and prediction. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 71, 207-217.	1.5	28
105	On the identification of eigenstrain sources of welding residual stress in bead-on-plate inconel 740H specimens. <i>International Journal of Mechanical Sciences</i> , 2018, 145, 231-245.	3.6	27
106	Probing the complex thermo-mechanical properties of a 3D-printed polylactide-hydroxyapatite composite using in situ synchrotron X-ray scattering. <i>Journal of Advanced Research</i> , 2019, 16, 113-122.	4.4	27
107	The correlation between plastic strain and anisotropy strain in aluminium alloy polycrystals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002, 334, 41-48.	2.6	26
108	The effect of path cut on Somigliana ring dislocation elastic fields. <i>International Journal of Solids and Structures</i> , 2007, 44, 6653-6677.	1.3	26

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109	On the micromechanics of micro-cantilever sensors: Property analysis and eigenstrain modeling. <i>Sensors and Actuators A: Physical</i> , 2007, 139, 70-77.	2.0	26
110	Dissipated energy and friction coefficient evolution during fretting wear of solid lubricant coatings. <i>Tribology International</i> , 2010, 43, 861-867.	3.0	26
111	Neutron Strain Tomography using the Radon Transform. <i>Materials Today: Proceedings</i> , 2015, 2, S414-S423.	0.9	26
112	Influence of size effect and plastic strain gradient on the springback behaviour of metallic materials in microbending process. <i>International Journal of Mechanical Sciences</i> , 2018, 146-147, 105-115.	3.6	26
113	On the analysis of post weld heat treatment residual stress relaxation in Inconel alloy 740H by combining the principles of artificial intelligence with the eigenstrain theory. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 752, 180-191.	2.6	26
114	Fundamental formulation for frictional contact problems of coated systems. <i>International Journal of Solids and Structures</i> , 2004, 41, 2837-2854.	1.3	25
115	Effect of Substrate Surface Roughness on Microstructure and Mechanical Properties of Cold-Sprayed Ti6Al4V Coatings on Ti6Al4V Substrates. <i>Journal of Thermal Spray Technology</i> , 2019, 28, 1959-1973.	1.6	25
116	Evolution of thermal and mechanical properties of Nitinol wire as a function of ageing treatment conditions. <i>Journal of Alloys and Compounds</i> , 2020, 819, 153024.	2.8	25
117	The Solution of Crack Problems by Using Distributed Strain Nuclei. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 1996, 210, 23-31.	1.1	24
118	Direct evidence of initial pitting corrosion. <i>Electrochemistry Communications</i> , 2008, 10, 1000-1004.	2.3	24
119	The influence of indenter bluntness on the apparent contact stiffness of thin coatings. <i>Thin Solid Films</i> , 2009, 517, 4835-4844.	0.8	24
120	Analysis of the spray field development on a vertical surface during water spray-quenching using a flat spray nozzle. <i>Applied Thermal Engineering</i> , 2009, 29, 1406-1416.	3.0	24
121	<i>In situ</i> X-ray scattering evaluation of heat-induced ultrastructural changes in dental tissues and synthetic hydroxyapatite. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20130928.	1.5	24
122	X-ray Scattering Evaluation of Ultrastructural Changes in Human Dental Tissues with Thermal Treatment. <i>Journal of Forensic Sciences</i> , 2014, 59, 769-774.	0.9	24
123	Full in-plane strain tensor analysis using the microscale ring-core FIB milling and DIC approach. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 94, 47-67.	2.3	24
124	The effect of surface damage and residual stresses on the fatigue life of nickel superalloys at high temperature. <i>International Journal of Fatigue</i> , 2019, 119, 34-42.	2.8	24
125	Laue-DIC: a new method for improved stress field measurements at the micrometer scale. <i>Journal of Synchrotron Radiation</i> , 2015, 22, 980-994.	1.0	23
126	Understanding nature's residual strain engineering at the human dentine-enamel junction interface. <i>Acta Biomaterialia</i> , 2016, 32, 256-263.	4.1	23

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127	Nanoscale Depth Profiling of Residual Stresses Due to Fine Surface Finishing. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900947.	1.9	23
128	The thermal expansion coefficient of mechanically alloyed Al-Cu-Fe quasicrystalline powders. <i>Scripta Materialia</i> , 2001, 44, 217-222.	2.6	22
129	Exponential evolution law of fretting wear damage in low-friction coatings for aerospace components. <i>Surface and Coatings Technology</i> , 2008, 202, 5838-5846.	2.2	22
130	Probing intra-granular deformation by micro-beam Laue diffraction. <i>Procedia Engineering</i> , 2009, 1, 193-196.	1.2	22
131	Multiscale modelling and diffraction-based characterization of elastic behaviour of human dentine. <i>Acta Biomaterialia</i> , 2013, 9, 7937-7947.	4.1	22
132	Elucidating the Mechanism of Fatigue Crack Acceleration Following the Occurrence of an Underload. <i>Advanced Engineering Materials</i> , 2016, 18, 2076-2087.	1.6	22
133	Nano-scale residual stress depth profiling in Cu/W nano-multilayers as a function of magnetron sputtering pressure. <i>Surface and Coatings Technology</i> , 2020, 381, 125142.	2.2	22
134	Acid-induced demineralisation of human enamel as a function of time and pH observed using X-ray and polarised light imaging. <i>Acta Biomaterialia</i> , 2021, 120, 240-248.	4.1	22
135	Imaging of grain-level orientation and strain in thicker metallic polycrystals by high energy transmission micro-beam Laue (HETL) diffraction techniques. <i>International Journal of Materials Research</i> , 2012, 103, 192-199.	0.1	22
136	Fundamental eigenstrain solutions for axisymmetric crack problems. <i>Journal of the Mechanics and Physics of Solids</i> , 1995, 43, 1221-1241.	2.3	21
137	High energy transmission micro-beam Laue synchrotron X-ray diffraction. <i>Materials Letters</i> , 2010, 64, 1302-1305.	1.3	21
138	Residual stress measurement in thin films using the semi-destructive ring-core drilling method using Focused Ion Beam. <i>Procedia Engineering</i> , 2011, 10, 2190-2195.	1.2	21
139	Transverse fatigue behaviour and residual stress analyses of double sided FSW aluminium alloy joints. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2019, 42, 1980-1990.	1.7	21
140	Fast Mass-Production of Medical Safety Shields under COVID-19 Quarantine: Optimizing the Use of University Fabrication Facilities and Volunteer Labor. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 3418.	1.2	21
141	Increased connectivity of hiPSC-derived neural networks in multiphase granular hydrogel scaffolds. <i>Bioactive Materials</i> , 2022, 9, 358-372.	8.6	21
142	Variational eigenstrain analysis of synchrotron diffraction measurements of residual elastic strain in a bent titanium alloy bar. <i>Journal of Mechanics of Materials and Structures</i> , 2006, 1, 259-277.	0.4	20
143	Residual elastic strain due to laser shock peening: Synchrotron diffraction measurement. <i>Journal of Strain Analysis for Engineering Design</i> , 2006, 41, 113-120.	1.0	20
144	Inverse eigenstrain analysis of residual stresses in friction stir welds. <i>Procedia Engineering</i> , 2009, 1, 213-216.	1.2	20

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145	Residual strains in AA2024/AlSiCp composite linear friction welds. <i>Materials & Design</i> , 2010, 31, S117-S120.	5.1	20
146	Structure-mechanical function relations at nano-scale in heat-affected human dental tissue. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 32, 113-124.	1.5	20
147	In operando X-ray absorption spectroscopy study of charge rate effects on the atomic environment in graphene-coated Li-rich mixed oxide cathode. <i>Materials and Design</i> , 2016, 98, 231-242.	3.3	20
148	Achieving Triply Periodic Minimal Surface Thin-Walled Structures by Micro Laser Powder Bed Fusion Process. <i>Micromachines</i> , 2021, 12, 705.	1.4	20
149	Gauss-Chebyshev quadrature formulae for strongly singular integrals. <i>Quarterly of Applied Mathematics</i> , 1998, 56, 461-472.	0.5	19
150	Determination of essential work of necking and tearing from a single tensile test. <i>International Journal of Fracture</i> , 2005, 132, 37-44.	1.1	19
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