

Alexander M. Korsunsky

List of Publications by Year in descending order

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455
papers

10,382
citations

38660

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h-index

64668

79
g-index

479
all docs

479
docs citations

479
times ranked

8821
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Increased connectivity of hiPSC-derived neural networks in multiphase granular hydrogel scaffolds. <i>Bioactive Materials</i> , 2022, 9, 358-372. | 8.6 | 21 |
| 2 | Metal-Based 3D-Printed Micro Parts & Structures. , 2022, , 448-461. | | 10 |
| 3 | Effect of Temperature on Shape Memory Materials. , 2022, , 239-253. | | 6 |
| 4 | Improving ultra-fast charging performance and durability of all solid state thin film Li-NMC battery-on-chip systems by in situ TEM lamella analysis. <i>Applied Materials Today</i> , 2022, 26, 101282. | 2.3 | 2 |
| 5 | Empirical Implementation of the Steinmetz Equation to Compute Eddy Current Loss in Soft Magnetic Composite Components. <i>IEEE Access</i> , 2022, 10, 14610-14623. | 2.6 | 12 |
| 6 | A SERS platform based on diatomite modified by gold nanoparticles using a combination of layer-by-layer assembly and a freezing-induced loading method. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 8901-8912. | 1.3 | 7 |
| 7 | Photonic tools for evaluating the growth of diatom colonies during long-term batch cultivation. <i>Journal of Physics: Conference Series</i> , 2022, 2172, 012011. | 0.3 | 0 |
| 8 | The Fundamental Formulation for Inhomogeneous Inclusion Problems with the Equivalent Eigenstrain Principle. <i>Metals</i> , 2022, 12, 582. | 1.0 | 3 |
| 9 | Effect of Graphene Oxide and Nanosilica Modifications on Electrospun Core-Shell PVA@PEG@SiO ₂ @PVA@GO Fiber Mats. <i>Nanomaterials</i> , 2022, 12, 998. | 1.9 | 7 |
| 10 | Ultra-fast quantification of polycrystalline texture via single shot synchrotron X-ray or neutron diffraction. <i>Materials Characterization</i> , 2022, 186, 111827. | 1.9 | 4 |
| 11 | Multiscale stress and strain statistics in the deformation of polycrystalline alloys. <i>International Journal of Plasticity</i> , 2022, 152, 103260. | 4.1 | 13 |
| 12 | Comparative analysis of the effectiveness of modern methods of sterilization of instruments and the place of gas-dynamic treatment with carbon dioxide. <i>Economy of Region</i> , 2022, 15, 12. | 0.1 | 1 |
| 13 | Recovering the second moment of the strain distribution from neutron Bragg edge data. <i>Applied Physics Letters</i> , 2022, 120, 164102. | 1.5 | 1 |
| 14 | Fracture Toughness of Moldable Low-Temperature Carbonized Elastomer-Based Composites Filled with Shungite and Short Carbon Fibers. <i>Polymers</i> , 2022, 14, 1793. | 2.0 | 2 |
| 15 | Carbon dioxide sterilization in critical/subcritical condition as an alternative to modern methods of eradication of bacteria, fungi and viruses on medical items (literature review). <i>Stomatology for All / International Dental Review</i> , 2022, , 12-20. | 0.0 | 0 |
| 16 | Carbon dioxide sterilization in critical/subcritical condition as an alternative to modern methods of eradication of bacteria, fungi and viruses on medical items (literature review). <i>Stomatology for All / International Dental Review</i> , 2022, , 12-20. | 0.0 | 0 |
| 17 | Interface mismatch eigenstrain of non-slipping contacts between dissimilar elastic solids. <i>International Journal of Solids and Structures</i> , 2022, 253, 111760. | 1.3 | 2 |
| 18 | Hierarchical 2D to 3D micro/nano-histology of human dental caries lesions using light, X-ray and electron microscopy. <i>Materials and Design</i> , 2022, 220, 110829. | 3.3 | 9 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Grain Structure Engineering of NiTi Shape Memory Alloys by Intensive Plastic Deformation. ACS Applied Materials & Interfaces, 2022, 14, 31396-31410. | 4.0 | 12 |
| 20 | Acid-induced demineralisation of human enamel as a function of time and pH observed using X-ray and polarised light imaging. Acta Biomaterialia, 2021, 120, 240-248. | 4.1 | 22 |
| 21 | Evolution of stress fields during crack growth and arrest in a brittle-ductile CrN-Cr clamped-cantilever analysed by X-ray nanodiffraction and modelling. Materials and Design, 2021, 198, 109365. | 3.3 | 10 |
| 22 | Finite Element Modelling and Experimental Validation of the Enamel Demineralisation Process at the Rod Level. Journal of Advanced Research, 2021, 29, 167-177. | 4.4 | 12 |
| 23 | Why is local stress statistics normal, and strain lognormal?. Materials and Design, 2021, 198, 109319. | 3.3 | 10 |
| 24 | In situ neutron diffraction investigation of texture-dependent Shape Memory Effect in a near equiatomic NiTi alloy. Acta Materialia, 2021, 202, 135-148. | 3.8 | 45 |
| 25 | The Analysis of Micro-Scale Deformation and Fracture of Carbonized Elastomer-Based Composites by In Situ SEM. Molecules, 2021, 26, 587. | 1.7 | 6 |
| 26 | Stress-Assisted Thermal Diffusion Barrier Breakdown in Ion Beam Deposited Cu/W Nano-Multilayers on Si Substrate Observed by <i>in Situ</i> GISAXS and Transmission EDX. ACS Applied Materials & Interfaces, 2021, 13, 6795-6804. | 4.0 | 12 |
| 27 | In Situ SEM Study of the Micro-Mechanical Behaviour of 3D-Printed Aluminium Alloy. Technologies, 2021, 9, 21. | 3.0 | 5 |
| 28 | Aberration characterization of x-ray optics using multi-modal ptychography and a partially coherent source. Applied Physics Letters, 2021, 118, 104104. | 1.5 | 10 |
| 29 | On the Structural Peculiarities of Self-Reinforced Composite Materials Based on UHMWPE Fibers. Polymers, 2021, 13, 1408. | 2.0 | 7 |
| 30 | Correlation between the macroscopic adhesion strength of cold spray coating and the microscopic single-particle bonding behaviour: Simulation, experiment and prediction. Applied Surface Science, 2021, 547, 149165. | 3.1 | 17 |
| 31 | 3D analysis of enamel demineralisation in human dental caries using high-resolution, large field of view synchrotron X-ray micro-computed tomography. Materials Today Communications, 2021, 27, 102418. | 0.9 | 14 |
| 32 | Achieving Triply Periodic Minimal Surface Thin-Walled Structures by Micro Laser Powder Bed Fusion Process. Micromachines, 2021, 12, 705. | 1.4 | 20 |
| 33 | On the Grain Microstructureâ€Mechanical Properties Relationships in Aluminium Alloy Parts Fabricated by Laser Powder Bed Fusion. Metals, 2021, 11, 1175. | 1.0 | 2 |
| 34 | Analysis of in vitro demineralised human enamel using multi-scale correlative optical and scanning electron microscopy, and high-resolution synchrotron wide-angle X-ray scattering. Materials and Design, 2021, 206, 109739. | 3.3 | 18 |
| 35 | Combination of Metal Oxide and Polytriarylamine: A Design Principle to Improve the Stability of Perovskite Solar Cells. Energies, 2021, 14, 5115. | 1.6 | 9 |
| 36 | On the diatomite-based nanostructure-preserving material synthesis for energy applications. RSC Advances, 2021, 11, 31884-31922. | 1.7 | 17 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | On the reinforced polymer composites with optimised strength and fire resistance - In Memory of Arthur Geoffrey Gibson. <i>Materials and Design</i> , 2021, 212, 110244. | 3.3 | 3 |
| 38 | Comparative Multi-Modal, Multi-Scale Residual Stress Evaluation in SLM 3D-Printed Al-Si-Mg Alloy (RS-300) Parts. <i>Metals</i> , 2021, 11, 2064. | 1.0 | 7 |
| 39 | Shape memory polymer blends and composites for 3D and 4D printing applications. , 2020, , 161-189. | | 11 |
| 40 | 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 |
| 41 | Polar transformation of 2D X-ray diffraction patterns and the experimental validation of the hDIC technique. <i>Measurement: Journal of the International Measurement Confederation</i> , 2020, 151, 107193. | 2.5 | 7 |
| 42 | 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 |
| 43 | Pyrite â€”poste restanteâ€™™. <i>Materials Today</i> , 2020, 32, 293-294. | 8.3 | 3 |
| 44 | Mechanical properties of thermally grown submicron oxide layers on a nickel-based superalloy. <i>Corrosion Science</i> , 2020, 165, 108388. | 3.0 | 6 |
| 45 | 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 |
| 46 | 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 |
| 47 | Siliceous diatom frustules â€” A smart nanotechnology platform. <i>Materials Today: Proceedings</i> , 2020, 33, 2032-2040. | 0.9 | 11 |
| 48 | Microstructure evolution in a severely cold-worked NiTi wire during ageing treatment: An in situ neutron diffraction study. <i>Materials Letters</i> , 2020, 281, 128676. | 1.3 | 9 |
| 49 | FEM exploration of the potential of silica diatom frustules for vibrational MEMS applications. <i>Sensors and Actuators A: Physical</i> , 2020, 315, 112270. | 2.0 | 7 |
| 50 | Mode I fracture toughness determination in Cu/W nano-multilayers on polymer substrate by SEM - Digital Image Correlation. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 145, 104145. | 2.3 | 5 |
| 51 | Multi-Scale Digital Image Correlation Analysis of In Situ Deformation of Open-Cell Porous Ultra-High Molecular Weight Polyethylene Foam. <i>Polymers</i> , 2020, 12, 2607. | 2.0 | 7 |
| 52 | On the application of digital optical microscopy in the study of materials structure and deformation. <i>Materials Today: Proceedings</i> , 2020, 33, 1917-1923. | 0.9 | 4 |
| 53 | 2D auxetic metamaterials with tuneable micro-/nanoscale apertures. <i>Applied Materials Today</i> , 2020, 20, 100780. | 2.3 | 15 |
| 54 | A Mini-Atlas of diatom frustule electron microscopy images at different magnifications. <i>Materials Today: Proceedings</i> , 2020, 33, 1924-1933. | 0.9 | 5 |

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|----|---|------|-----------|
| 55 | The use of profilometry techniques and eigenstrain theory for the analysis of creep behavior in nickel superalloy welds. <i>Materials Today: Proceedings</i> , 2020, 33, 2041-2058. | 0.9 | 0 |
| 56 | On the electrospinning of nanostructured collagen-PVA fiber mats. <i>Materials Today: Proceedings</i> , 2020, 33, 2013-2019. | 0.9 | 8 |
| 57 | Ovine Bone Morphology and Deformation Analysis Using Synchrotron X-ray Imaging and Scattering. <i>Quantum Beam Science</i> , 2020, 4, 29. | 0.6 | 7 |
| 58 | The Use of Surface Topography for the Identification of Discontinuous Displacements Due to Cracks. <i>Metals</i> , 2020, 10, 1037. | 1.0 | 3 |
| 59 | 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 |
| 60 | 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 |
| 61 | Nano-Scale Residual Stress Profiling in Thin Multilayer Films with Non-Equibiaxial Stress State. <i>Nanomaterials</i> , 2020, 10, 853. | 1.9 | 12 |
| 62 | 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 |
| 63 | Design and mechanical properties of 3D-printed auxetic honeycomb structure. <i>Materials Today Communications</i> , 2020, 24, 101173. | 0.9 | 32 |
| 64 | 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 |
| 65 | The structure and phase composition of nano-silicon as a function of calcination conditions of diatomaceous earth. <i>Materials Today: Proceedings</i> , 2020, 33, 1884-1892. | 0.9 | 1 |
| 66 | Eigenstrain boundary layer modelling of the yttria-partially stabilised zirconiaâ€ porcelain interface in dental prostheses. <i>International Journal of Engineering Science</i> , 2020, 153, 103315. | 2.7 | 2 |
| 67 | The characterization of PVA/PHY hydrogels for 3D printing fabrication of organ phantoms. <i>Materials Today: Proceedings</i> , 2020, 33, 1874-1879. | 0.9 | 4 |
| 68 | The use of eigenstrain theory and fuzzy techniques for intelligent modeling of residual stress and creep relaxation in welded superalloys. <i>Materials Today: Proceedings</i> , 2020, 33, 1880-1883. | 0.9 | 2 |
| 69 | Photoacoustic and fluorescence lifetime imaging of diatoms. <i>Photoacoustics</i> , 2020, 18, 100171. | 4.4 | 10 |
| 70 | 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 |
| 71 | The fabrication and characterization of bioengineered ultra-high molecular weight polyethylene-collagen-hap hybrid bone-cartilage patch. <i>Materials Today Communications</i> , 2020, 24, 101052. | 0.9 | 7 |
| 72 | Advanced Surface Enhancement. <i>Metals</i> , 2020, 10, 700. | 1.0 | 0 |

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|----|--|-----|-----------|
| 73 | Coupled Eulerian-Lagrangian (CEL) simulation of multiple particle impact during Metal Cold Spray process for coating porosity prediction. <i>Surface and Coatings Technology</i> , 2020, 385, 125433. | 2.2 | 19 |
| 74 | Neutron strain scanning for experimental validation of the artificial intelligence based eigenstrain contour method. <i>Mechanics of Materials</i> , 2020, 143, 103316. | 1.7 | 14 |
| 75 | FIB-SEM Investigation of Laser-Induced Periodic Surface Structures and Conical Surface Microstructures on D16T (AA2024-T4) Alloy. <i>Metals</i> , 2020, 10, 144. | 1.0 | 5 |
| 76 | 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 |
| 77 | In Situ Formation of Nanoporous Silicon on a Silicon Wafer via the Magnesiothermic Reduction Reaction (MRR) of Diatomaceous Earth. <i>Nanomaterials</i> , 2020, 10, 601. | 1.9 | 11 |
| 78 | Hard X-ray ptychography for optics characterization using a partially coherent synchrotron source. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 1688-1695. | 1.0 | 8 |
| 79 | Synchrotron X-ray Scattering Analysis of Nylon-12 Crystallisation Variation Depending on 3D Printing Conditions. <i>Polymers</i> , 2020, 12, 1169. | 2.0 | 7 |
| 80 | Features of formation of colonial settlements of marine benthic diatoms on the surface of synthetic polymer. <i>Marine Biological Journal</i> , 2020, 5, 88-104. | 0.3 | 0 |
| 81 | New Approach for Fast Residual Strain Estimation Through Rational 2D Diffraction Pattern Processing. <i>Communications in Computer and Information Science</i> , 2020, , 282-288. | 0.4 | 0 |
| 82 | Engineering Materials Science Using Synchrotron Radiation. , 2020, , 1777-1802. | | 0 |
| 83 | Porous Open-Cell UHMWPE: Experimental Study of Structure and Mechanical Properties. <i>Materials</i> , 2019, 12, 2195. | 1.3 | 15 |
| 84 | Evaluation of single crystal elastic stiffness coefficients of a nickel-based superalloy by electron backscatter diffraction and nanoindentation. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 131, 303-312. | 2.3 | 13 |
| 85 | Composite NASICON ($\text{Na}_{3}\text{Zr}_{2}\text{Si}_{2}\text{PO}_{12}$) 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 |
| 86 | 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 |
| 87 | Nanoscale Depth Profiling of Residual Stresses Due to Fine Surface Finishing. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900947. | 1.9 | 23 |
| 88 | Datasets for multi-scale diffraction analysis (synchrotron XRD and EBSD) of twinning-detwinning during tensile-compressive deformation of AZ31B magnesium alloy samples. <i>Data in Brief</i> , 2019, 26, 104423. | 0.5 | 4 |
| 89 | Investigations into the interface failure of yttria partially stabilised zirconia - porcelain dental prostheses through microscale residual stress and phase quantification. <i>Dental Materials</i> , 2019, 35, 1576-1593. | 1.6 | 10 |
| 90 | Nature's neat nanostructuration. <i>Materials Today</i> , 2019, 22, 159-160. | 8.3 | 13 |

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|-----|--|-----|-----------|
| 91 | The height Digital Image Correlation (hDIC) technique for the identification of triaxial surface deformations. <i>International Journal of Mechanical Sciences</i> , 2019, 159, 417-423. | 3.6 | 16 |
| 92 | 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 |
| 93 | 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 |
| 94 | A review of experimental approaches to fracture toughness evaluation at the micro-scale. <i>Materials and Design</i> , 2019, 173, 107762. | 3.3 | 167 |
| 95 | 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 |
| 96 | Multiscale synchrotron scattering studies of the temperature-dependent changes in the structure and deformation response of a thermoplastic polyurethane elastomer. <i>Materials Today Advances</i> , 2019, 4, 100024. | 2.5 | 10 |
| 97 | 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 |
| 98 | 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 |
| 99 | On the application of principles of artificial intelligence for eigenstrain reconstruction of volumetric residual stresses in non-uniform Inconel alloy 740H weldments. <i>Finite Elements in Analysis and Design</i> , 2019, 155, 43-51. | 1.7 | 15 |
| 100 | Residual strain mapping through pair distribution function analysis of the porcelain veneer within a yttria partially stabilised zirconia dental prosthesis. <i>Dental Materials</i> , 2019, 35, 257-269. | 1.6 | 6 |
| 101 | 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 |
| 102 | Engineering Materials Science Using Synchrotron Radiation. , 2019, , 1-26. | | 1 |
| 103 | Combined analysis of structure and strain in engineering materials by neutron and synchrotron X-ray diffraction, and electron microscopy. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2019, 75, e340-e340. | 0.0 | 0 |
| 104 | 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 |
| 105 | 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 |
| 106 | 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 |
| 107 | Multiscale analysis of bamboo deformation mechanisms following NaOH treatment using X-ray and correlative microscopy. <i>Acta Biomaterialia</i> , 2018, 72, 329-341. | 4.1 | 19 |
| 108 | On the origins of strain inhomogeneity in amorphous materials. <i>Scientific Reports</i> , 2018, 8, 1574. | 1.6 | 15 |

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|-----|--|-----|-----------|
| 109 | Complex variable formulation for a rigid line inclusion interacting with a generalized singularity. <i>Archive of Applied Mechanics</i> , 2018, 88, 613-627. | 1.2 | 7 |
| 110 | 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 |
| 111 | The inclusion of short-transverse displacements in the eigenstrain reconstruction of residual stress and distortion in 740h weldments. <i>Journal of Manufacturing Processes</i> , 2018, 36, 601-612. | 2.8 | 18 |
| 112 | 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 |
| 113 | On the Dependence of $\hat{\epsilon}^2$ Precipitate Size in a Nickel-Based Superalloy on the Cooling Rate from Super-Solvus Temperature Heat Treatment. <i>Materials</i> , 2018, 11, 1528. | 1.3 | 15 |
| 114 | 3D-printed PEEK-carbon fiber (CF) composites: Structure and thermal properties. <i>Composites Science and Technology</i> , 2018, 164, 319-326. | 3.8 | 185 |
| 115 | Evaluation of macro- and microscopic residual stresses in laser shock-peened titanium alloy by FIB-DIC ring-core milling with different core diameters. <i>Surface and Coatings Technology</i> , 2018, 349, 719-724. | 2.2 | 18 |
| 116 | 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 |
| 117 | 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 |
| 118 | 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 |
| 119 | Digital Image Correlation of 2D X-ray Powder Diffraction Data for Lattice Strain Evaluation. <i>Materials</i> , 2018, 11, 427. | 1.3 | 8 |
| 120 | Nanoscale Origins of the Size Effect in the Compression Response of Single Crystal Ni-Base Superalloy Micro-Pillars. <i>Materials</i> , 2018, 11, 561. | 1.3 | 8 |
| 121 | In Situ Diagnostics of Damage Accumulation in Ni-Based Superalloys Using High-Temperature Computed Tomography. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 4274-4289. | 1.1 | 4 |
| 122 | In situ monitoring and analysis of enamel demineralisation using synchrotron X-ray scattering. <i>Acta Biomaterialia</i> , 2018, 77, 333-341. | 4.1 | 14 |
| 123 | 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 |
| 124 | Structure-Function Correlative Microscopy of Peritubular and Intertubular Dentine. <i>Materials</i> , 2018, 11, 1493. | 1.3 | 12 |
| 125 | A 3DP-based procedure for the fabrication of artificial UHMWPE trabecular bone tissue. <i>Biomaterials and Medical Applications</i> , 2018, 02, . | 0.0 | 1 |
| 126 | Probing the deformation and fracture properties of Cu/W nano-multilayers by in situ SEM and synchrotron XRD strain microscopy. <i>Surface and Coatings Technology</i> , 2017, 320, 158-167. | 2.2 | 14 |

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|-----|--|-----|-----------|
| 127 | Characterisation of nanovoiding in dental porcelain using small angle neutron scattering and transmission electron microscopy. <i>Dental Materials</i> , 2017, 33, 486-497. | 1.6 | 5 |
| 128 | Wear Characteristics of Medical Hearing-Aid Components and Friction Reduction Mechanisms. <i>Journal of Tribology</i> , 2017, 139, . | 1.0 | 1 |
| 129 | Characterisation of handling and service surface damage on Nickel alloys caused by low velocity impacts of blunt hard objects. <i>Mechanics of Materials</i> , 2017, 107, 45-55. | 1.7 | 9 |
| 130 | Probing the nano-scale architecture of diamond-patterned electrospun fibre mats by synchrotron small angle X-ray scattering. <i>RSC Advances</i> , 2017, 7, 8200-8204. | 1.7 | 2 |
| 131 | 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 |
| 132 | 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 |
| 133 | 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 |
| 134 | Strain softening of nano-scale fuzzy interfaces causes Mullins effect in thermoplastic polyurethane. <i>Scientific Reports</i> , 2017, 7, 916. | 1.6 | 29 |
| 135 | Introduction and Outline. , 2017, , 1-4. | | 0 |
| 136 | Elastic and Inelastic Deformation and Residual Stress. , 2017, , 5-20. | | 0 |
| 137 | Simple Residual Stress Systems. , 2017, , 21-40. | | 0 |
| 138 | Inelastic Bending of Beams. , 2017, , 41-51. | | 0 |
| 139 | Plastic Yielding of Cylinders. , 2017, , 53-65. | | 1 |
| 140 | Dislocations. , 2017, , 79-92. | | 1 |
| 141 | Residual Stress "Measurement", 2017, , 93-107. | | 11 |
| 142 | Microscale Methods of Residual Stress Evaluation. , 2017, , 109-156. | | 0 |
| 143 | The Inverse Eigenstrain Method of Residual Stress Reconstruction. , 2017, , 157-165. | | 0 |
| 144 | Eigenstrain Methods in Structural Integrity Analysis. , 2017, , 167-172. | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 145 | 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 |
| 146 | High resolution imaging and analysis of residual elastic strain in an additively manufactured turbine blade. <i>International Journal of Nanotechnology</i> , 2017, 14, 166. | 0.1 | 3 |
| 147 | The Eigenstrain Theory of Residual Stress. , 2017, , 67-77. | | 0 |
| 148 | Investigation of microstructure within metal welds by energy resolved neutron imaging. <i>Journal of Physics: Conference Series</i> , 2016, 746, 012040. | 0.3 | 5 |
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