Alexander M. Korsunsky

List of Publications by Year in Descending Order

433 papers	7,712 citations	42 h-index	67 g-index
479 ext. papers	8,977 ext. citations	3.8 avg, IF	6.47 L-index

#	Paper	IF	Citations
433	Empirical Implementation of the Steinmetz Equation to Compute Eddy Current Loss in Soft Magnetic Composite Components. *IEEE Access*, **2022**, 10, 14610-14623	3.5	0
432	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. *Applied Materials Today*, **2022**, 26, 101282	6.6	1
431	Effect of Temperature on Shape Memory Materials **2022**, 239-253		1
430	Increased connectivity of hiPSC-derived neural networks in multiphase granular hydrogel scaffolds. *Bioactive Materials*, **2022**, 9, 358-372	16.7	5
429	Metal-Based 3D-Printed Micro Parts & Structures **2022**, 448-461		5
428	Photonic tools for evaluating the growth of diatom colonies during long-term batch cultivation. *Journal of Physics: Conference Series*, **2022**, 2172, 012011	0.3	
427	The Fundamental Formulation for Inhomogeneous Inclusion Problems with the Equivalent Eigenstrain Principle. *Metals*, **2022**, 12, 582	2.3	0
426	Effect of Graphene Oxide and Nanosilica Modifications on Electrospun Core-Shell PVA-PEG-SiO@PVA-GO Fiber Mats.. *Nanomaterials*, **2022**, 12,	5.4	2
425	Ultra-fast quantification of polycrystalline texture via single shot synchrotron X-ray or neutron diffraction. *Materials Characterization*, **2022**, 186, 111827	3.9	0
424	Multiscale stress and strain statistics in the deformation of polycrystalline alloys. *International Journal of Plasticity*, **2022**, 152, 103260	7.6	1
423	Comparative analysis of the effectiveness of modern methods of sterilization of instruments and the place of gas-dynamic treatment with carbon dioxide. *Economy of Region*, **2022**, 15, 12	0.1	
422	Recovering the second moment of the strain distribution from neutron Bragg edge data. *Applied Physics Letters*, **2022**, 120, 164102	3.4	
421	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). *Stomatology for All / International Dental Review*, **2022**, 12-20	0.2	
420	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). *Stomatology for All / International Dental Review*, **2022**, 12-20	0.2	
419	Interface mismatch eigenstrain of non-slipping contacts between dissimilar elastic solids. *International Journal of Solids and Structures*, **2022**, 111760	3.1	
418	On the reinforced polymer composites with optimised strength and fire resistance - In Memory of Arthur Geoffrey Gibson. *Materials and Design*, **2021**, 212, 110244	8.1	
417	Aberration characterization of x-ray optics using multi-modal ptychography and a partially coherent source. *Applied Physics Letters*, **2021**, 118, 104104	3.4	3

416	On the Structural Peculiarities of Self-Reinforced Composite Materials Based on UHMWPE Fibers. *Polymers*, **2021**, 13,	4.5	2
415	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	6.7	6
414	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	2.5	2
413	Achieving Triply Periodic Minimal Surface Thin-Walled Structures by Micro Laser Powder Bed Fusion Process. *Micromachines*, **2021**, 12,	3.3	7
412	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	10.8	10
411	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	8.1	3
410	Finite Element Modelling and Experimental Validation of the Enamel Demineralisation Process at the Rod Level. *Journal of Advanced Research*, **2021**, 29, 167-177	13	6
409	Why is local stress statistics normal, and strain lognormal?. *Materials and Design*, **2021**, 198, 109319	8.1	5
408	In situ neutron diffraction investigation of texture-dependent Shape Memory Effect in a near equiatomic NiTi alloy. *Acta Materialia*, **2021**, 202, 135-148	8.4	12
407	The Analysis of Micro-Scale Deformation and Fracture of Carbonized Elastomer-Based Composites by In Situ SEM. *Molecules*, **2021**, 26,	4.8	2
406	Stress-Assisted Thermal Diffusion Barrier Breakdown in Ion Beam Deposited Cu/W Nano-Multilayers on Si Substrate Observed by GISAXS and Transmission EDX. *ACS Applied Materials & Interfaces*, **2021**, 13, 6795-6804	9.5	4
405	In Situ SEM Study of the Micro-Mechanical Behaviour of 3D-Printed Aluminium Alloy. *Technologies*, **2021**, 9, 21	2.4	3
404	On the Grain Microstructure–Mechanical Properties Relationships in Aluminium Alloy Parts Fabricated by Laser Powder Bed Fusion. *Metals*, **2021**, 11, 1175	2.3	2
403	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	8.1	7
402	Combination of Metal Oxide and Polytriarylamine: A Design Principle to Improve the Stability of Perovskite Solar Cells. *Energies*, **2021**, 14, 5115	3.1	3
401	On the diatomite-based nanostructure-preserving material synthesis for energy applications.. *RSC Advances*, **2021**, 11, 31884-31922	3.7	1
400	Comparative Multi-Modal, Multi-Scale Residual Stress Evaluation in SLM 3D-Printed Al-Si-Mg Alloy (RS-300) Parts. *Metals*, **2021**, 11, 2064	2.3	1
399	Fast Mass-Production of Medical Safety Shields under COVID-19 Quarantine: Optimizing the Use of University Fabrication Facilities and Volunteer Labor. *International Journal of Environmental Research and Public Health*, **2020**, 17,	4.6	14

398	Nano-Scale Residual Stress Profiling in Thin Multilayer Films with Non-Equibiaxial Stress State. *Nanomaterials*, **2020**, 10,	5.4	7
397	Advances in additive manufacturing process simulation: Residual stresses and distortion predictions in complex metallic components. *Materials and Design*, **2020**, 193, 108779	8.1	40
396	Design and mechanical properties of 3D-printed auxetic honeycomb structure. *Materials Today Communications*, **2020**, 24, 101173	2.5	13
395	Micro selective laser melting of NiTi shape memory alloy: Defects, microstructures and thermal/mechanical properties. *Optics and Laser Technology*, **2020**, 131, 106374	4.2	24
394	The structure and phase composition of nano-silicon as a function of calcination conditions of diatomaceous earth. *Materials Today: Proceedings*, **2020**, 33, 1884-1892	1.4	1
393	Eigenstrain boundary layer modelling of the yttria-partially stabilised zirconia–porcelain interface in dental prostheses. *International Journal of Engineering Science*, **2020**, 153, 103315	5.7	2
392	The characterization of PVA/PHY hydrogels for 3D printing fabrication of organ phantoms. *Materials Today: Proceedings*, **2020**, 33, 1874-1879	1.4	1
391	The use of eigenstrain theory and fuzzy techniques for intelligent modeling of residual stress and creep relaxation in welded superalloys. *Materials Today: Proceedings*, **2020**, 33, 1880-1883	1.4	2
390	Photoacoustic and fluorescence lifetime imaging of diatoms. *Photoacoustics*, **2020**, 18, 100171	9	5
389	An analysis of fatigue failure mechanisms in an additively manufactured and shot peened IN 718 nickel superalloy. *Materials and Design*, **2020**, 191, 108605	8.1	22
388	The fabrication and characterization of bioengineered ultra-high molecular weight polyethylene-collagen-hap hybrid bone-cartilage patch. *Materials Today Communications*, **2020**, 24, 101052	2.5	6
387	Coupled Eulerian-Lagrangian (CEL) simulation of multiple particle impact during Metal Cold Spray process for coating porosity prediction. *Surface and Coatings Technology*, **2020**, 385, 125433	4.4	9
386	Neutron strain scanning for experimental validation of the artificial intelligence based eigenstrain contour method. *Mechanics of Materials*, **2020**, 143, 103316	3.3	6
385	FIB-SEM Investigation of Laser-Induced Periodic Surface Structures and Conical Surface Microstructures on D16T (AA2024-T4) Alloy. *Metals*, **2020**, 10, 144	2.3	0
384	An experimental and numerical analysis of residual stresses in a TIG weldment of a single crystal nickel-base superalloy. *Journal of Manufacturing Processes*, **2020**, 53, 190-200	5	17
383	Formation of Nanoporous Silicon on a Silicon Wafer via the Magnesiothermic Reduction Reaction (MRR) of Diatomaceous Earth. *Nanomaterials*, **2020**, 10,	5.4	6
382	Hard X-ray ptychography for optics characterization using a partially coherent synchrotron source. *Journal of Synchrotron Radiation*, **2020**, 27, 1688-1695	2.4	5
381	New Approach for Fast Residual Strain Estimation Through Rational 2D Diffraction Pattern Processing. *Communications in Computer and Information Science*, **2020**, 282-288	0.3	

380	Engineering Materials Science Using Synchrotron Radiation **2020**, 1777-1802		
379	Synchrotron X-ray Scattering Analysis of Nylon-12 Crystallisation Variation Depending on 3D Printing Conditions. *Polymers*, **2020**, 12,	4.5	4
378	Bonding Strength Improvement Through Numerical Simulation of Particle Impact Process During Metal Cold Spray. *Lecture Notes in Mechanical Engineering*, **2020**, 144-152	0.4	
377	Features of formation of colonial settlements of marine benthic diatoms on the surface of synthetic polymer. *Marine Biological Journal*, **2020**, 5, 88-104	0.6	
376	Polar transformation of 2D X-ray diffraction patterns and the experimental validation of the hDIC technique. *Measurement: Journal of the International Measurement Confederation*, **2020**, 151, 107193	4.6	3
375	Highly stretchable two-dimensional auxetic metamaterial sheets fabricated via direct-laser cutting. *International Journal of Mechanical Sciences*, **2020**, 167, 105242	5.5	38
374	Pyrite poste restante Intra-diatom framboids. *Materials Today*, **2020**, 32, 293-294	21.8	1
373	Mechanical properties of thermally grown submicron oxide layers on a nickel-based superalloy. *Corrosion Science*, **2020**, 165, 108388	6.8	4
372	Evolution of thermal and mechanical properties of Nitinol wire as a function of ageing treatment conditions. *Journal of Alloys and Compounds*, **2020**, 819, 153024	5.7	12
371	Nano-scale residual stress depth profiling in Cu/W nano-multilayers as a function of magnetron sputtering pressure. *Surface and Coatings Technology*, **2020**, 381, 125142	4.4	11
370	Siliceous diatom frustules A smart nanotechnology platform. *Materials Today: Proceedings*, **2020**, 33, 2032-2040	1.4	3
369	Microstructure evolution in a severely cold-worked NiTi wire during ageing treatment: An in situ neutron diffraction study. *Materials Letters*, **2020**, 281, 128676	3.3	6
368	FEM exploration of the potential of silica diatom frustules for vibrational MEMS applications. *Sensors and Actuators A: Physical*, **2020**, 315, 112270	3.9	1
367	Mode I fracture toughness determination in Cu/W nano-multilayers on polymer substrate by SEM - Digital Image Correlation. *Journal of the Mechanics and Physics of Solids*, **2020**, 145, 104145	5	2
366	Multi-Scale Digital Image Correlation Analysis of In Situ Deformation of Open-Cell Porous Ultra-High Molecular Weight Polyethylene Foam. *Polymers*, **2020**, 12,	4.5	4
365	On the application of digital optical microscopy in the study of materials structure and deformation. *Materials Today: Proceedings*, **2020**, 33, 1917-1923	1.4	2
364	2D auxetic metamaterials with tuneable micro-/nanoscale apertures. *Applied Materials Today*, **2020**, 20, 100780	6.6	5
363	A Mini-Atlas of diatom frustule electron microscopy images at different magnifications. *Materials Today: Proceedings*, **2020**, 33, 1924-1933	1.4	1

362	The use of profilometry techniques and eigenstrain theory for the analysis of creep behavior in nickel superalloy welds. *Materials Today: Proceedings*, **2020**, 33, 2041-2058	1.4	
361	On the electrospinning of nanostructured collagen-PVA fiber mats. *Materials Today: Proceedings*, **2020**, 33, 2013-2019	1.4	5
360	Ovine Bone Morphology and Deformation Analysis Using Synchrotron X-ray Imaging and Scattering. *Quantum Beam Science*, **2020**, 4, 29	1.6	4
359	The Use of Surface Topography for the Identification of Discontinuous Displacements Due to Cracks. *Metals*, **2020**, 10, 1037	2.3	0
358	Synchrotron X-ray quantitative evaluation of transient deformation and damage phenomena in a single nickel-rich cathode particle. *Energy and Environmental Science*, **2020**, 13, 3556-3566	35.4	24
357	Shape memory polymer blends and composites for 3D and 4D printing applications **2020**, 161-189		6
356	Micro-scale measurement & FEM modelling of residual stresses in AA6082-T6 Al alloy generated by wire EDM cutting. *Journal of Materials Processing Technology*, **2020**, 275, 116373	5.3	23
355	Datasets for multi-scale diffraction analysis (synchrotron XRD and EBSD) of twinning-detwinning during tensile-compressive deformation of AZ31B magnesium alloy samples. *Data in Brief*, **2019**, 26, 104423	1.2	2
354	Investigations into the interface failure of yttria partially stabilised zirconia - porcelain dental prostheses through microscale residual stress and phase quantification. *Dental Materials*, **2019**, 35, 1576-1593	5.7	7
353	Nature□ neat nanostructuration: The fascinating frustules of diatom algae. *Materials Today*, **2019**, 22, 159-160	21.8	9
352	The height Digital Image Correlation (hDIC) technique for the identification of triaxial surface deformations. *International Journal of Mechanical Sciences*, **2019**, 159, 417-423	5.5	8
351	Transverse fatigue behaviour and residual stress analyses of double sided FSW aluminium alloy joints. *Fatigue and Fracture of Engineering Materials and Structures*, **2019**, 42, 1980-1990	3	15
350	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. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 752, 180-191	5.3	13
349	A review of experimental approaches to fracture toughness evaluation at the micro-scale. *Materials and Design*, **2019**, 173, 107762	8.1	99
348	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. *International Journal of Plasticity*, **2019**, 119, 43-56	7.6	48
347	Grain Rotation during Twin-Detwin Deformation of Mg AZ31 Alloy Using In Situ XRD and EBSD. *Key Engineering Materials*, **2019**, 793, 17-22	0.4	1
346	Porous Open-□□ UHMWPE: Experimental Study of Structure and Mechanical Properties. *Materials*, **2019**, 12,	3.5	9
345	Evaluation of single crystal elastic stiffness coefficients of a nickel-based superalloy by electron backscatter diffraction and nanoindentation. *Journal of the Mechanics and Physics of Solids*, **2019**, 131, 303-312	5	6

344	Composite NASICON (NaZrSiPO) Solid-State Electrolyte with Enhanced Na Ionic Conductivity: Effect of Liquid Phase Sintering. *ACS Applied Materials & Interfaces*, **2019**, 11, 40125-40133	9.5	39
343	Effect of Substrate Surface Roughness on Microstructure and Mechanical Properties of Cold-Sprayed Ti6Al4V Coatings on Ti6Al4V Substrates. *Journal of Thermal Spray Technology*, **2019**, 28, 1959-1973	2.5	14
342	Nanoscale Depth Profiling of Residual Stresses Due to Fine Surface Finishing. *Advanced Materials Interfaces*, **2019**, 6, 1900947	4.6	10
341	Challenges and Progress in Residual Stress Evaluation and Analysis at the Nanoscale. *Structural Integrity*, **2019**, 319-321	0.2	
340	Engineering Materials Science Using Synchrotron Radiation **2019**, 1-26		
339	Crack Tip Stress Field Analysis of Crack Surface Contact and Opening during In Situ Wedge Loading of Human Enamel. *Key Engineering Materials*, **2019**, 827, 85-91	0.4	1
338	Multiscale synchrotron scattering studies of the temperature-dependent changes in the structure and deformation response of a thermoplastic polyurethane elastomer. *Materials Today Advances*, **2019**, 4, 100024	7.4	5
337	Probing the complex thermo-mechanical properties of a 3D-printed polylactide-hydroxyapatite composite using synchrotron X-ray scattering. *Journal of Advanced Research*, **2019**, 16, 113-122	13	22
336	Generalised residual stress depth profiling at the nanoscale using focused ion beam milling. *Journal of the Mechanics and Physics of Solids*, **2019**, 125, 488-501	5	20
335	On the application of principles of artificial intelligence for eigenstrain reconstruction of volumetric residual stresses in non-uniform Inconel alloy 740H weldments. *Finite Elements in Analysis and Design*, **2019**, 155, 43-51	2.2	8
334	Residual strain mapping through pair distribution function analysis of the porcelain veneer within a yttria partially stabilised zirconia dental prosthesis. *Dental Materials*, **2019**, 35, 257-269	5.7	4
333	The effect of surface damage and residual stresses on the fatigue life of nickel superalloys at high temperature. *International Journal of Fatigue*, **2019**, 119, 34-42	5	14
332	A simplified FEM eigenstrain residual stress reconstruction for surface treatments in arbitrary 3D geometries. *International Journal of Mechanical Sciences*, **2018**, 138-139, 457-466	5.5	22
331	Nanoscale residual stress depth profiling by Focused Ion Beam milling and eigenstrain analysis. *Materials and Design*, **2018**, 145, 55-64	8.1	37
330	An Arrhenius equation-based model to predict the residual stress relief of post weld heat treatment of Ti-6Al-4V plate. *Journal of Manufacturing Processes*, **2018**, 32, 763-772	5	26
329	Multiscale analysis of bamboo deformation mechanisms following NaOH treatment using X-ray and correlative microscopy. *Acta Biomaterialia*, **2018**, 72, 329-341	10.8	11
328	On the origins of strain inhomogeneity in amorphous materials. *Scientific Reports*, **2018**, 8, 1574	4.9	10
327	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. *Acta Materialia*, **2018**, 156, 43-51	8.4	22

326	Residual stresses in single particle splat of metal cold spray process Numerical simulation and direct measurement. *Materials Letters*, **2018**, 230, 152-156	3.3	33
325	Influence of size effect and plastic strain gradient on the springback behaviour of metallic materials in microbending process. *International Journal of Mechanical Sciences*, **2018**, 146-147, 105-115	5.5	13
324	Digital Image Correlation of 2D X-ray Powder Diffraction Data for Lattice Strain Evaluation. *Materials*, **2018**, 11,	3.5	6
323	Nanoscale Origins of the Size Effect in the Compression Response of Single Crystal Ni-Base Superalloy Micro-Pillars. *Materials*, **2018**, 11,	3.5	4
322	In Situ Diagnostics of Damage Accumulation in Ni-Based Superalloys Using High-Temperature Computed Tomography. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2018**, 49, 4274-4289	2.3	3
321	In situ monitoring and analysis of enamel demineralisation using synchrotron X-ray scattering. *Acta Biomaterialia*, **2018**, 77, 333-341	10.8	10
320	On the identification of eigenstrain sources of welding residual stress in bead-on-plate inconel 740H specimens. *International Journal of Mechanical Sciences*, **2018**, 145, 231-245	5.5	19
319	Structure-Function Correlative Microscopy of Peritubular and Intertubular Dentine. *Materials*, **2018**, 11,	3.5	8
318	Complex variable formulation for a rigid line inclusion interacting with a generalized singularity. *Archive of Applied Mechanics*, **2018**, 88, 613-627	2.2	5
317	Nanoscale structural damage due to focused ion beam milling of silicon with Ga ions. *Materials Letters*, **2018**, 213, 346-349	3.3	27
316	The inclusion of short-transverse displacements in the eigenstrain reconstruction of residual stress and distortion in in740h weldments. *Journal of Manufacturing Processes*, **2018**, 36, 601-612	5	9
315	Influence of Particle Velocity When Propelled Using N2 or N2-He Mixed Gas on the Properties of Cold-Sprayed Ti6Al4V Coatings. *Coatings*, **2018**, 8, 327	2.9	22
314	On the Dependence of Precipitate Size in a Nickel-Based Superalloy on the Cooling Rate from Super-Solvus Temperature Heat Treatment. *Materials*, **2018**, 11,	3.5	10
313	3D-printed PEEK-carbon fiber (CF) composites: Structure and thermal properties. *Composites Science and Technology*, **2018**, 164, 319-326	8.6	120
312	Evaluation of macro- and microscopic residual stresses in laser shock-peened titanium alloy by FIB-DIC ring-core milling with different core diameters. *Surface and Coatings Technology*, **2018**, 349, 719-724	4.4	9
311	Probing the deformation and fracture properties of Cu/W nano-multilayers by in situ SEM and synchrotron XRD strain microscopy. *Surface and Coatings Technology*, **2017**, 320, 158-167	4.4	12
310	Characterisation of nanovoiding in dental porcelain using small angle neutron scattering and transmission electron microscopy. *Dental Materials*, **2017**, 33, 486-497	5.7	5
309	Wear Characteristics of Medical Hearing-Aid Components and Friction Reduction Mechanisms. *Journal of Tribology*, **2017**, 139,	1.8	1

308	Characterisation of handling and service surface damage on Nickel alloys caused by low velocity impacts of blunt hard objects. *Mechanics of Materials*, **2017**, 107, 45-55	3.3	6
307	Probing the nano-scale architecture of diamond-patterned electrospun fibre mats by synchrotron small angle X-ray scattering. *RSC Advances*, **2017**, 7, 8200-8204	3.7	1
306	Photoluminescence Segmentation within Individual Hexagonal Monolayer Tungsten Disulfide Domains Grown by Chemical Vapor Deposition. *ACS Applied Materials & Interfaces*, **2017**, 9, 15005-15014	8.5	48
305	Eigenstrain reconstruction of residual strains in an additively manufactured and shot peened nickel superalloy compressor blade. *Computer Methods in Applied Mechanics and Engineering*, **2017**, 320, 335-351	5.7	45
304	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. *International Journal of Plasticity*, **2017**, 98, 123-138	7.6	57
303	Strain softening of nano-scale fuzzy interfaces causes Mullins effect in thermoplastic polyurethane. *Scientific Reports*, **2017**, 7, 916	4.9	20
302	Simple Residual Stress Systems **2017**, 21-40		
301	Inelastic Bending of Beams **2017**, 41-51		
300	Plastic Yielding of Cylinders **2017**, 53-65		0
299	Dislocations **2017**, 79-92		1
298	Residual Stress Measurement **2017**, 93-107		7
297	Microscale Methods of Residual Stress Evaluation **2017**, 109-156		
296	The Inverse Eigenstrain Method of Residual Stress Reconstruction **2017**, 157-165		
295	Eigenstrain Methods in Structural Integrity Analysis **2017**, 167-172		
294	Separating plasticity-induced closure and residual stress contributions to fatigue crack retardation following an overload. *Journal of the Mechanics and Physics of Solids*, **2017**, 98, 222-235	5	80
293	High resolution imaging and analysis of residual elastic strain in an additively manufactured turbine blade. *International Journal of Nanotechnology*, **2017**, 14, 166	1.5	3
292	Quantifying eigenstrain distributions induced by focused ion beam damage in silicon. *Materials Letters*, **2016**, 185, 47-49	3.3	26
291	Elucidating the Mechanism of Fatigue Crack Acceleration Following the Occurrence of an Underload . *Advanced Engineering Materials*, **2016**, 18, 2076-2087	3.5	15

290	Crack surface morphology and grain misorientation in fatigued aluminium alloy AA7050 samples after interrupted ageing and retrogression-reageing treatments. *Procedia Structural Integrity*, **2016**, 2, 3697-3704	1	1
289	Ripples in amorphous chalcogenide films under homogeneous laser illumination. *Materials Letters*, **2016**, 183, 156-160	3.3	8
288	Strengthening mechanisms in an Al-Fe-Cr-Ti nano-quasicrystalline alloy and composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 672, 175-183	5.3	32
287	Multi-scale Characterisation of the 3D Microstructure of a Thermally-Shocked Bulk Metallic Glass Matrix Composite. *Scientific Reports*, **2016**, 6, 18545	4.9	7
286	A Na(+) Superionic Conductor for Room-Temperature Sodium Batteries. *Scientific Reports*, **2016**, 6, 32330	4.9	110
285	Operando X-ray Absorption Spectroscopy Study of Atomic Phase Reversibility with Wavelet Transform in the Lithium-Rich Manganese Based Oxide Cathode. *Chemistry of Materials*, **2016**, 28, 4191-4203	8.6	22
284	Mitigated phase transition during first cycle of a Li-rich layered cathode studied by in operando synchrotron X-ray powder diffraction. *Physical Chemistry Chemical Physics*, **2016**, 18, 4745-52	3.6	26
283	On the fragmentation of active material secondary particles in lithium ion battery cathodes induced by charge cycling. *Extreme Mechanics Letters*, **2016**, 9, 449-458	3.9	62
282	In operando X-ray absorption spectroscopy study of charge rate effects on the atomic environment in graphene-coated Li-rich mixed oxide cathode. *Materials and Design*, **2016**, 98, 231-242	8.1	18
281	The effect of eigenstrain induced by ion beam damage on the apparent strain relief in FIB-DIC residual stress evaluation. *Materials and Design*, **2016**, 92, 649-658	8.1	40
280	Analysis of increasing torque with recurrent slip in interference-fits. *Engineering Failure Analysis*, **2016**, 62, 58-74	3.2	4
279	High Li ion conductivity in a garnet-type solid electrolyte via unusual site occupation of the doping Ca ions. *Materials and Design*, **2016**, 93, 232-237	8.1	48
278	Understanding nature's residual strain engineering at the human dentine-enamel junction interface. *Acta Biomaterialia*, **2016**, 32, 256-263	10.8	15
277	The influence of welding procedure and plate geometry on residual stresses in thick components. *International Journal of Solids and Structures*, **2016**, 80, 420-429	3.1	39
276	Residual Stress Measurement on Shot Peened Samples Using FIB-DIC. *Conference Proceedings of the Society for Experimental Mechanics*, **2016**, 275-283	0.3	2
275	Elastic Behavior of Materials: Continuum Aspects **2016**,		
274	Investigation of microstructure within metal welds by energy resolved neutron imaging. *Journal of Physics: Conference Series*, **2016**, 746, 012040	0.3	5
273	A study of overload effect on fatigue crack propagation using EBSD, FIBDIC and FEM methods. *Engineering Fracture Mechanics*, **2016**, 167, 210-223	4.2	36

272	Experimental and modelling characterisation of residual stresses in cylindrical samples of rapidly cooled bulk metallic glass. *Materials and Design*, **2016**, 104, 235-241	8.1	12
271	Uncertainty quantification of residual stress evaluation by the FIB-DIC ring-core method due to elastic anisotropy effects. *International Journal of Solids and Structures*, **2016**, 87, 61-69	3.1	31
270	Full in-plane strain tensor analysis using the microscale ring-core FIB milling and DIC approach. *Journal of the Mechanics and Physics of Solids*, **2016**, 94, 47-67	5	16
269	Operando observation of the Taylor cone during electrospinning by multiple synchrotron X-ray techniques. *Materials and Design*, **2016**, 110, 933-934	8.1	7
268	Fatigue and Fracture behaviour of AZ31b Mg alloy plastically deformed by Constrained Groove Pressing in the Presence of Overloads. *Procedia Structural Integrity*, **2016**, 2, 3772-3781	1	10
267	A review of geometrical and microstructural size effects in micro-scale deformation processing of metallic alloy components. *International Journal of Machine Tools and Manufacture*, **2016**, 109, 94-125	9.4	74
266	Structure-morphology correlation in electrospun fibers of semicrystalline polymers by simultaneous synchrotron SAXS-WAXD. *Polymer*, **2015**, 63, 154-163	3.9	37
265	Multiple-length-scale deformation analysis in a thermoplastic polyurethane. *Nature Communications*, **2015**, 6, 6583	17.4	32
264	Nanoscale chemical mapping of Li-ion battery cathode material by FIB-SEM and TOF-SIMS multi-modal microscopy. *Nano Energy*, **2015**, 17, 254-260	17.1	45
263	Non-singular antiplane fracture theory within nonlocal anisotropic elasticity. *Materials and Design*, **2015**, 88, 854-861	8.1	10
262	A state-of-the-art review of micron-scale spatially resolved residual stress analysis by FIB-DIC ring-core milling and other techniques. *Journal of Strain Analysis for Engineering Design*, **2015**, 50, 426-444	1.3	32
261	Nano-structural changes in Li-ion battery cathodes during cycling revealed by FIB-SEM serial sectioning tomography. *Journal of Materials Chemistry A*, **2015**, 3, 18171-18179	13	56
260	Investigation of Martensite Transformation in 316L Stainless Steel. *Materials Today: Proceedings*, **2015**, 2, S251-S260	1.4	11
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