

Alexander J G Lunt

List of Publications by Year in descending order

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516710

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all docs

41
docs citations

41
times ranked

976
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploration of alternative supply chains and distributed manufacturing in response to COVID-19; a case study of medical face shields. <i>Materials and Design</i> , 2020, 192, 108749.	7.0	91
2	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.	4.8	81
3	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.	6.6	74
4	A critical comparison between XRD and FIB residual stress measurement techniques in thin films. <i>Thin Solid Films</i> , 2014, 572, 224-231.	1.8	58
5	An eigenstrain-based finite element model and the evolution of shot peening residual stresses during fatigue of CW103 magnesium alloy. <i>International Journal of Fatigue</i> , 2012, 42, 284-295.	5.7	51
6	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.	7.0	50
7	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.	7.0	48
8	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.	1.8	46
9	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.	6.7	30
10	<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.	3.4	24
11	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.	4.8	24
12	Understanding nature's residual strain engineering at the human dentine-enamel junction interface. <i>Acta Biomaterialia</i> , 2016, 32, 256-263.	8.3	23
13	Elucidating the Mechanism of Fatigue Crack Acceleration Following the Occurrence of an Underload. <i>Advanced Engineering Materials</i> , 2016, 18, 2076-2087.	3.5	22
14	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.	7.0	20
15	Calculations of single crystal elastic constants for yttria partially stabilised zirconia from powder diffraction data. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	19
16	Nano-scale mapping of lattice strain and orientation inside carbon core SiC fibres by synchrotron X-ray diffraction. <i>Carbon</i> , 2014, 79, 85-92.	10.3	17
17	Hierarchical modelling of in situ elastic deformation of human enamel based on photoelastic and diffraction analysis of stresses and strains. <i>Acta Biomaterialia</i> , 2014, 10, 343-354.	8.3	16
18	On the origins of strain inhomogeneity in amorphous materials. <i>Scientific Reports</i> , 2018, 8, 1574.	3.3	15

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19	Intragranular Residual Stress Evaluation Using the Semi-Destructive FIB-DIC Ring-Core Drilling Method. <i>Advanced Materials Research</i> , 2014, 996, 8-13.	0.3	11
20	Analysis of Fe(Se,Te) Films Deposited On Unbuffered Invar 36. <i>IEEE Transactions on Applied Superconductivity</i> , 2019, 29, 1-5.	1.7	11
21	A comparative transmission electron microscopy, energy dispersive x-ray spectroscopy and spatially resolved micropillar compression study of the yttria partially stabilised zirconia - porcelain interface in dental prosthesis. <i>Thin Solid Films</i> , 2015, 596, 222-232.	1.8	10
22	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.	3.5	10
23	Digital Image Correlation of 2D X-ray Powder Diffraction Data for Lattice Strain Evaluation. <i>Materials</i> , 2018, 11, 427.	2.9	8
24	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.	4.5	7
25	Numerical and experimental studies of the influence of curing and residual stresses on buckling in thin-walled, CFRP square-section profiles. <i>Composite Structures</i> , 2021, 275, 114411.	5.8	7
26	Advanced Processing and Machining of Tungsten and Its Alloys. <i>Journal of Manufacturing and Materials Processing</i> , 2022, 6, 15.	2.2	7
27	Tensile secondary creep rate analysis of a dental veneering porcelain. <i>Thin Solid Films</i> , 2015, 596, 269-276.	1.8	6
28	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.	3.5	6
29	Softening and hardening on a Zr-based bulk metallic glass induced by nanosecond laser surface melting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 803, 140497.	5.6	6
30	Characterisation of nanovoiding in dental porcelain using small angle neutron scattering and transmission electron microscopy. <i>Dental Materials</i> , 2017, 33, 486-497.	3.5	5
31	Manufacturing technologies and joining methods of metallic thin-walled pipes for use in high pressure cooling systems. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 118, 667-681.	3.0	5
32	Micro-scale finishing of the surface and form of a Ti-6Al-4V lightweight rotor obtained by laser powder bed fusion used for air bearing. <i>Additive Manufacturing</i> , 2018, 23, 287-293.	3.0	3
33	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.	7.0	3
34	Microscale resolution fracture toughness profiling at the zirconia-porcelain interface in dental prostheses. <i>Proceedings of SPIE</i> , 2015, .	0.8	2
35	Towards robust design of thin film transition edge sensors for use in the next-generation superconducting radio frequency cavities. <i>Materials and Design</i> , 2017, 122, 403-404.	7.0	2
36	Eigenstrain boundary layer modelling of the yttria-partially stabilised zirconia-porcelain interface in dental prostheses. <i>International Journal of Engineering Science</i> , 2020, 153, 103315.	5.0	2

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37	Evaluation of the performance variation of porous air pads on discontinuous surfaces. Precision Engineering, 2020, 62, 16-22.	3.4	1
38	Secondary Phases Quantification and Fracture Toughness at Cryogenic Temperature of Austenitic Stainless Steel Welds for High-Field Superconducting Magnets. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-4.	1.7	0
39	Mechanical and Microstructural Characterisation of Cooling Pipes for the Compact Muon Solenoid Experiment at CERN. Materials, 2021, 14, 3190.	2.9	0