Sam L Evans

List of Publications by Year
in descending order

72 papers	1,939 citations	279778 23 h-index	254170 43 g-index
81 all docs	81 docs citations	81 times ranked	2636 citing authors

#	Article	IF	Citations
1	Laser powder bed fusion of Hastelloy X: Effects of hot isostatic pressing and the hot cracking mechanism. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 732, 228-239.	5.6	171
2	An anisotropic, hyperelastic model for skin: Experimental measurements, finite element modelling and identification of parameters for human and murine skin. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 18, 167-180.	3.1	164
3	Delta T source location for acoustic emission. Mechanical Systems and Signal Processing, 2007, 21, 1512-1520.	8.0	153
4	Synthesis and characterisation of advanced ball-milled Al-Al2O3 nanocomposites for selective laser melting. Powder Technology, 2016, 297, 183-192.	4.2	122
5	Digital image correlation and finite element modelling as a method to determine mechanical properties of human soft tissue in vivo. Journal of Biomechanics, 2009, 42, 1150-1153.	2.1	116
6	Selective laser melting of advanced Al-Al 2 O 3 nanocomposites: Simulation, microstructure and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 698, 162-173.	5.6	85
7	Macro and nanoscale wear behaviour of Al-Al 2 O 3 nanocomposites fabricated by selective laser melting. Composites Part B: Engineering, 2017, 127, 26-35.	12.0	83
8	A new methodology for automating acoustic emission detection of metallic fatigue fractures in highly demanding aerospace environments: An overview. Progress in Aerospace Sciences, 2017, 90, 1-11.	12.1	72
9	Structural characterisation and transdermal delivery studies on sugar microneedles: Experimental and finite element modelling analyses. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 89, 224-231.	4.3	71
10	Poissonâ€™s Ratio and Strain Rate Dependency of the Constitutive Behavior of Spinal Dura Mater. Annals of Biomedical Engineering, 2010, 38, 975-983.	2.5	61
11	Chronic, intermittent convection-enhanced delivery devices. Journal of Neuroscience Methods, 2016, 259, 47-56.	2.5	56
12	A New Method to Investigate How Mechanical Loading of Osteocytes Controls Osteoblasts. Frontiers in Endocrinology, 2014, 5, 208.	3.5	51
13	Additive manufacturing of high-strength crack-free Ni-based Hastelloy X superalloy. Additive Manufacturing, 2019, 30, 100919.	3.0	48
14	An innovative application of a small-scale motion analysis technique to quantify human skin deformation in vivo. Journal of Biomechanics, 2010, 43, 1002-1006.	2.1	45
15	Effect of ball-milling time on mechanical and magnetic properties of carbon nanotube reinforced FeCo alloy composites. Materials and Design, 2017, 122, 296-306.	7.0	40
16	Accuracy and repeatability of an optical motion analysis system for measuring small deformations of biological tissues. Journal of Biomechanics, 2007, 40, 210-214.	2.1	39
17	Adhesive forces and surface properties of cold gas plasma treated UHMWPE. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 460, 83-89.	4.7	35
18	Biomechanical Study: Determining the Optimum Insertion Angle for Screw-In Suture Anchorsâ€”Is Deadman's AngleÂCorrect?. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2014, 30, 1535-1539.	2.7	34

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19	Fabrication of carbon nanotube reinforced iron based magnetic alloy composites by spark plasma sintering. Journal of Alloys and Compounds, 2014, 601, 146-153.	5.5	31
20	Characterisation and milling time optimisation of nanocrystalline aluminium powder for selective laser melting. International Journal of Advanced Manufacturing Technology, 2017, 88, 1429-1438.	3.0	30
21	A Parametric Study and Simulations in Quantifying Human Skin Hyperelastic Parameters. Procedia Engineering, 2012, 41, 1580-1586.	1.2	29
22	Mechanical assessment of two different methods of tripling hamstring tendons when using suspensory fixation. Knee Surgery, Sports Traumatology, Arthroscopy, 2012, 20, 262-267.	4.2	29
23	Fibroblast growth factor 2 and transforming growth factor Î²1 induce precocious maturation of articular cartilage. Arthritis and Rheumatism, 2011, 63, 3417-3427.	6.7	28
24	Comparison of transverse wires and half pins in Taylor Spatial Frame: A biomechanical study. Journal of Orthopaedic Surgery and Research, 2010, 5, 23.	2.3	24
25	Maximising coverage of brain structures using controlled reflux, convection-enhanced delivery and the recessed step catheter. Journal of Neuroscience Methods, 2018, 308, 337-345.	2.5	24
26	A transverse isotropic viscoelastic constitutive model for aortic valve tissue. Royal Society Open Science, 2017, 4, 160585.	2.4	23
27	Full-surface deformation measurement of anisotropic tissues under indentation. Medical Engineering and Physics, 2015, 37, 484-493.	1.7	22
28	Use of Macro Fibre Composite Transducers as Acoustic Emission Sensors. Remote Sensing, 2009, 1, 68-79.	4.0	21
29	Spatial scanning for anomaly detection in acoustic emission testing of an aerospace structure. Mechanical Systems and Signal Processing, 2011, 25, 2462-2474.	8.0	16
30	A comparative study of bone shortening and bone loss with use of saw blades versus burr in hallux valgus surgery. Foot and Ankle Surgery, 2012, 18, 195-197.	1.7	15
31	Mechanical and magnetic characterisation of SiC whisker reinforced Feâ€“Co alloy composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 592, 19-27.	5.6	15
32	Enhancement in the elongation, yield strength and magnetic properties of intermetallic FeCo alloy using spark plasma sintering. Journal of Materials Science, 2017, 52, 13284-13295.	3.7	13
33	Synthesis and properties of graphene and graphene/carbon nanotube-reinforced soft magnetic FeCo alloy composites by spark plasma sintering. Journal of Materials Science, 2016, 51, 7624-7635.	3.7	12
34	Effect of diagenetic recrystallization on the strength of planktonic foraminifer tests under compression. Journal of Micropalaeontology, 2015, 34, 59-64.	3.6	11
35	Determining hyperelastic parameters of human skin using 2D finite element modelling and simulation. , 2012, , .		10
36	Variation in electrosurgical vessel seal quality along the length of a porcine carotid artery. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2016, 230, 169-174.	1.8	9

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37	Structural and magnetic characterization of spark plasma sintered Fe-50Co alloys. Materials Research Society Symposia Proceedings, 2012, 1516, 201-207.	0.1	8
38	Improvement of interfacial bonding in carbon nanotube reinforced Feâ€“50Co composites by Niâ€“P coating: Effect on magnetic and mechanical properties. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 188, 94-101.	3.5	8
39	Changes in Vickers hardness during the decomposition of bone: Possibilities for forensic anthropology. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 65, 672-678.	3.1	8
40	Disrupted mitochondrial function in the Opa3L122Pmouse model for Costeff Syndrome impairs skeletal integrity. Human Molecular Genetics, 2016, 25, ddw107.	2.9	7
41	An Analysis of Systematic Elemental Changes in Decomposing Bone. Journal of Forensic Sciences, 2018, 63, 207-213.	1.6	7
42	Influence of spark plasma sintering parameters on magnetic properties of FeCo alloy. AIP Advances, 2018, 8, 047705.	1.3	7
43	Alternative radiopacifiers for polymethyl methacrylate bone cements: Silane-treated anatase titanium dioxide and yttria-stabilised zirconium dioxide. Journal of Biomaterials Applications, 2021, 35, 1235-1252.	2.4	7
44	Pull-Out Strength of a Polished Tapered Stem is Improved by Placing Bone Cement Over the Shoulder of the Implant. Journal of Arthroplasty, 2009, 24, 139-143.	3.1	6
45	Editorial: Identification of material parameters through inverse finite element modelling. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 1-2.	1.6	6
46	Inverse problems and material identification in tissue biomechanics. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 27, 129-131.	3.1	6
47	Influence of coated SiC particulates on the mechanical and magnetic behaviour of Feâ€“Co alloy composites. Journal of Materials Science, 2014, 49, 2578-2587.	3.7	6
48	Feasibility of detecting orthopaedic screw overtightening using acoustic emission. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2017, 231, 213-221.	1.8	6
49	A review of foot finite element modelling for pressure ulcer prevention in bedrest: Current perspectives and future recommendations. Journal of Tissue Viability, 2022, 31, 73-83.	2.0	6
50	Full-field MRI measurements of in-vivo positional brain shift reveal the significance of intra-cranial geometry and head orientation for stereotactic surgery. Scientific Reports, 2021, 11, 17684.	3.3	6
51	Bone cement: an overview. International Journal of Nano and Biomaterials, 2010, 3, 4.	0.1	5
52	Nonlinear scaling effects in the stiffness of soft cellular structures. Royal Society Open Science, 2019, 6, 181361.	2.4	5
53	Quantifying Skin Properties Using a Novel Integration Experiment-Finite Element Simulation and Skin Pre-Stretch Model. Advanced Science Letters, 2013, 19, 3155-3160.	0.2	5
54	Mechanical and magnetic properties of spark plasma sintered soft magnetic FeCo alloy reinforced by carbon nanotubes. Journal of Materials Research, 2016, 31, 3448-3458.	2.6	4

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55	How Can We Measure the Mechanical Properties of Soft Tissues?. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2017, , 67-83.	0.6	4
56	Thermoneutrality improves skeletal impairment in adult Praderâ€“Willi syndrome mice. Journal of Endocrinology, 2019, 243, 175-186.	2.6	3
57	Distal humerus cortical strains following total elbow arthroplasty. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2013, 227, 120-128.	1.8	2
58	Acoustic emission technology can warn of impending iatrogenic femur fracture during femoral canal preparation for uncemented hip replacement. A cadaveric animal bone study. Journal of Medical Engineering and Technology, 2018, 42, 72-87.	1.4	2
59	A Nonlinear Compressible Transversely-Isotropic Viscohyperelastic Constitutive Model of the Periodontal Ligament. , 2008, , .		1
60	Effects of intermittent overloads on fatigue of PMMA bone cement. International Journal of Nano and Biomaterials, 2010, 3, 65.	0.1	1
61	Author's Reply. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2015, 31, 182-183.	2.7	1
62	Analysis of variability in additive manufactured open cell porous structures. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2017, 231, 534-546.	1.8	1
63	Effect of gap outside contact area on lubrication of metal-on-Metal total hip replacement. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 23, 675-689.	1.6	1
64	Progressive dehydration in decomposing bone: a potential tool for forensic anthropology. Journal of Thermal Analysis and Calorimetry, 2021, 143, 3517-3524.	3.6	1
65	Advanced Location and Characterisation of Damage in Complex Metallic Structures Using Acoustic Emission. , 2007, , 925-926.		1
66	Applications of Motion Analysis System Measuring Micro-Movements in Three-Dimensional Space. , 2009, , .		0
67	Editorial. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 1571.	3.1	0
68	Are stainless steel elastic nails the solution to heavier children with femoral shaft fractures?. Injury, 2016, 47, 295.	1.7	0
69	Mimicking osteocytes in vivo using 3D collagen gels: development of a novel tool to study osteocyte biology. Endocrine Abstracts, 0, , 1-1.	0.0	0
70	Development of a novel 3D mineralising culture system to investigate the differentiation of osteoblasts to osteocytes. Bone Abstracts, 0, , .	0.0	0
71	In vitro 3D osteoblast-osteocyte co-culture mechanical loading model. Bone Abstracts, 0, , .	0.0	0
72	Differential effects of grazing and meal feeding on skeletal growth and femoral strength in male rats. Endocrine Abstracts, 0, , .	0.0	0