Amir A Zadpoor

List of Publications by Year
in descending order

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279 papers	17,793 citations	13332 70 h-index	20625 120 g-index
287 all docs	287 docs citations	287 times ranked	15186 citing authors

#	Article	IF	Citations
1	Biomimetic Approaches for the Design and Fabrication of Bone-to-Soft Tissue Interfaces. ACS Biomaterials Science and Engineering, 2023, 9, 3810-3831.	2.6	21
2	Patientâ€specific 3Dâ€printed shelf implant for the treatment of hip dysplasia: Anatomical and biomechanical outcomes in a canine model. Journal of Orthopaedic Research, 2022, 40, 1154-1162.	1.2	10
3	Mechanisms of fatigue crack initiation and propagation in auxetic meta-biomaterials. Acta Biomaterialia, 2022, 138, 398-409.	4.1	18
4	Nanoimprinting for high-throughput replication of geometrically precise pillars in fused silica to regulate cell behavior. Acta Biomaterialia, 2022, 140, 717-729.	4.1	4
5	Poly(2-ethyl-2-oxazoline) coating of additively manufactured biodegradable porous iron. Materials Science and Engineering C, 2022, 133, 112617.	3.8	7
6	Multi-objective design optimization of 3D micro-architected implants. Computer Methods in Applied Mechanics and Engineering, 2022, 396, 115102.	3.4	14
7	Controlled metal crumpling as an alternative to folding for the fabrication of nanopatterned meta-biomaterials. Materials and Design, 2022, 220, 110844.	3.3	8
8	Deep learning for the rare-event rational design of 3D printed multi-material mechanical metamaterials. Communications Materials, 2022, 3, .	2.9	21
9	Theoretical stiffness limits of 4D printed self-folding metamaterials. Communications Materials, 2022, 3, .	2.9	11
10	Osteogenic and antibacterial surfaces on additively manufactured porous Ti-6Al-4V implants: Combining silver nanoparticles with hydrothermally synthesized HA nanocrystals. Materials Science and Engineering C, 2021, 120, 111745.	3.8	29
11	Extrusion-based 3D printed biodegradable porous iron. Acta Biomaterialia, 2021, 121, 741-756.	4.1	52
12	Design of a 3D-printed hand prosthesis featuring articulated bio-inspired fingers. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2021, 235, 336-345.	1.0	17
13	Morphometric and Mechanical Analyses of Calcifications and Fibrous Plaque Tissue in Carotid Arteries for Plaque Rupture Risk Assessment. IEEE Transactions on Biomedical Engineering, 2021, 68, 1429-1438.	2.5	13
14	Extrusion-based 3D printed magnesium scaffolds with multifunctional MgF₂and MgF₂â€“CaP coatings. Biomaterials Science, 2021, 9, 7159-7182.	2.6	16
15	The morphological variation of acetabular defects in revision total hip arthroplastyâ€”A statistical shape modeling approach. Journal of Orthopaedic Research, 2021, 39, 2419-2427.	1.2	6
16	The three-dimensional shape symmetry of the lunate and its implications. Journal of Hand Surgery: European Volume, 2021, 46, 587-593.	0.5	0
17	Mechanical characterization of nanopillars by atomic force microscopy. Additive Manufacturing, 2021, 39, 101858.	1.7	6
18	Patellofemoral pain patients show differences in 3D patellar shape compared to healthy control subjects. Osteoarthritis and Cartilage, 2021, 29, S336-S337.	0.6	1

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19	Antibacterial Titanium Implants Biofunctionalized by Plasma Electrolytic Oxidation with Silver, Zinc, and Copper: A Systematic Review. International Journal of Molecular Sciences, 2021, 22, 3800.	1.8	35
20	Additively Manufactured Absorbable Porous Metal Implants â€“ Processing, Alloying and Corrosion Behavior. Frontiers in Materials, 2021, 8, .	1.2	7
21	Additively manufactured space-filling meta-implants. Acta Biomaterialia, 2021, 125, 345-357.	4.1	33
22	Decoupling Minimal Surface Metamaterial Properties Through Multiâ€Material Hyperbolic Tilings. Advanced Functional Materials, 2021, 31, 2101373.	7.8	27
23	On the Use of Black Ti as a Bone Substituting Biomaterial: Behind the Scenes of Dualâ€Functionality. Small, 2021, 17, e2100706.	5.2	10
24	Inorganic Agents for Enhanced Angiogenesis of Orthopedic Biomaterials. Advanced Healthcare Materials, 2021, 10, e2002254.	3.9	35
25	Fatigue performance of auxetic meta-biomaterials. Acta Biomaterialia, 2021, 126, 511-523.	4.1	44
26	Dynamic characterization of 3D printed mechanical metamaterials with tunable elastic properties. Applied Physics Letters, 2021, 118, .	1.5	5
27	The effects of plasma electrolytically oxidized layers containing Sr and Ca on the osteogenic behavior of selective laser melted Ti6Al4V porous implants. Materials Science and Engineering C, 2021, 124, 112074.	3.8	9
28	Topographic features of nano-pores within the osteochondral interface and their effects on transport properties â€“ a 3D imaging and modeling study. Journal of Biomechanics, 2021, 123, 110504.	0.9	4
29	Curvature Induced by Deflection in Thick Metaâ€Plates. Advanced Materials, 2021, 33, e2008082.	11.1	22
30	4D printing of reconfigurable metamaterials and devices. Communications Materials, 2021, 2, .	2.9	60
31	3D-Printed Submicron Patterns Reveal the Interrelation between Cell Adhesion, Cell Mechanics, and Osteogenesis. ACS Applied Materials & Interfaces, 2021, 13, 33767-33781.	4.0	27
32	Metamaterial Design: Decoupling Minimal Surface Metamaterial Properties Through Multiâ€Material Hyperbolic Tilings (Adv. Funct. Mater. 30/2021). Advanced Functional Materials, 2021, 31, 2170214.	7.8	0
33	Comparison in clinical performance of surgical guides for mandibular surgery and temporomandibular joint implants fabricated by additive manufacturing techniques. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 119, 104512.	1.5	12
34	Extrusion-based 3D printing of ex situ-alloyed highly biodegradable MRI-friendly porous iron-manganese scaffolds. Acta Biomaterialia, 2021, 134, 774-790.	4.1	20
35	Bioprinting of a Zonal-Specific Cell Density Scaffold: A Biomimetic Approach for Cartilage Tissue Engineering. Applied Sciences (Switzerland), 2021, 11, 7821.	1.3	12
36	The local and global geometry of trabecular bone. Acta Biomaterialia, 2021, 130, 343-361.	4.1	31

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37	Surface-treated 3D printed Ti-6Al-4V scaffolds with enhanced bone regeneration performance: an in vivo study. Annals of Translational Medicine, 2021, 9, 39-39.	0.7	15
38	Lattice structures made by laser powder bed fusion. , 2021, , 423-465.		5
39	3D printed submicron patterns orchestrate the response of macrophages. Nanoscale, 2021, 13, 14304-14315.	2.8	15
40	Improving the Mechanical Properties of Additively Manufactured Micro-Architected Biodegradable Metals. Jom, 2021, 73, 4188-4198.	0.9	6
41	Kirigami-enabled self-folding origami. Materials Today, 2020, 32, 59-67.	8.3	63
42	Additively manufactured biodegradable porous zinc. Acta Biomaterialia, 2020, 101, 609-623.	4.1	95
43	Mechanics of bioinspired functionally graded soft-hard composites made by multi-material 3D printing. Composite Structures, 2020, 237, 111867.	3.1	73
44	Meta-biomaterials. Biomaterials Science, 2020, 8, 18-38.	2.6	90
45	Self-defending additively manufactured bone implants bearing silver and copper nanoparticles. Journal of Materials Chemistry B, 2020, 8, 1589-1602.	2.9	65
46	Substrate curvature as a cue to guide spatiotemporal cell and tissue organization. Biomaterials, 2020, 232, 119739.	5.7	191
47	3D Printing of Large Areas of Highly Ordered Submicron Patterns for Modulating Cell Behavior. ACS Applied Materials & Interfaces, 2020, 12, 200-208.	4.0	24
48	Layer by layer coating for bio-functionalization of additively manufactured meta-biomaterials. Additive Manufacturing, 2020, 32, 100991.	1.7	36
49	Additively manufactured biodegradable porous metals. Acta Biomaterialia, 2020, 115, 29-50.	4.1	113
50	Non-affinity in multi-material mechanical metamaterials. Scientific Reports, 2020, 10, 11488.	1.6	27
51	Continuous and pulsed selective laser melting of Ti6Al4V lattice structures: Effect of post-processing on microstructural anisotropy and fatigue behaviour. Additive Manufacturing, 2020, 36, 101433.	1.7	31
52	Mechanical performance of auxetic meta-biomaterials. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 104, 103658.	1.5	77
53	Multiâ€Material 3D Printing of Functionally Graded Hierarchical Softâ€“Hard Composites. Advanced Engineering Materials, 2020, 22, 2070031.	1.6	5
54	Solvent-cast 3D printing of magnesium scaffolds. Acta Biomaterialia, 2020, 114, 497-514.	4.1	51

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55	Spiral Honeycomb Microstructured Bacterial Cellulose for Increased Strength and Toughness. ACS Applied Materials & Interfaces, 2020, 12, 50748-50755.	4.0	13
56	Quantitative mechanics of 3D printed nanopillars interacting with bacterial cells. Nanoscale, 2020, 12, 21988-22001.	2.8	14
57	Functionality-packed additively manufactured porous titanium implants. Materials Today Bio, 2020, 7, 100060.	2.6	27
58	Strain rateâ€“dependent mechanical metamaterials. Science Advances, 2020, 6, eaba0616.	4.7	75
59	Biofunctionalization of selective laser melted porous titanium using silver and zinc nanoparticles to prevent infections by antibiotic-resistant bacteria. Acta Biomaterialia, 2020, 107, 325-337.	4.1	82
60	Russian doll deployable meta-implants: Fusion of kirigami, origami, and multi-stability. Materials and Design, 2020, 191, 108624.	3.3	41
61	Natural Architectures for Tissue Engineering and Regenerative Medicine. Journal of Functional Biomaterials, 2020, 11, 47.	1.8	10
62	On bone fatigue and its relevance for the design of architected materials. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6985-6985.	3.3	4
63	Deciphering the Roles of Interspace and Controlled Disorder in the Bactericidal Properties of Nanopatterns against Staphylococcus aureus. Nanomaterials, 2020, 10, 347.	1.9	29
64	Corrosion fatigue behavior of additively manufactured biodegradable porous zinc. Acta Biomaterialia, 2020, 106, 439-449.	4.1	38
65	Synthetic Polymers Provide a Robust Substrate for Functional Neuron Culture. Advanced Healthcare Materials, 2020, 9, e1901347.	3.9	3
66	Immobilization of nanocarriers within a porous chitosan scaffold for the sustained delivery of growth factors in bone tissue engineering applications. Journal of Biomedical Materials Research - Part A, 2020, 108, 1122-1135.	2.1	25
67	Additively manufactured functionally graded biodegradable porous zinc. Biomaterials Science, 2020, 8, 2404-2419.	2.6	50
68	Multiâ€Material 3D Printing of Functionally Graded Hierarchical Softâ€“Hard Composites. Advanced Engineering Materials, 2020, 22, 1901142.	1.6	15
69	Mechanical properties and cytocompatibility of dense and porous Zn produced by laser powder bed fusion for biodegradable implant applications. Acta Biomaterialia, 2020, 110, 289-302.	4.1	28
70	Bone Regeneration in Critical-Sized Bone Defects Treated with Additively Manufactured Porous Metallic Biomaterials: The Effects of Inelastic Mechanical Properties. Materials, 2020, 13, 1992.	1.3	14
71	Multi-material additive manufacturing technologies for Ti-, Mg-, and Fe-based biomaterials for bone substitution. Acta Biomaterialia, 2020, 109, 1-20.	4.1	125
72	Degradable Poly(Methyl Methacrylate)-co-Methacrylic Acid Nanoparticles for Controlled Delivery of Growth Factors for Bone Regeneration. Tissue Engineering - Part A, 2020, 26, 1226-1242.	1.6	11

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73	Immunomodulation of surface biofunctionalized 3D printed porous titanium implants. Biomedical Materials (Bristol), 2020, 15, 035017.	1.7	24
74	Additively manufactured functionally graded biodegradable porous iron. Acta Biomaterialia, 2019, 96, 646-661.	4.1	120
75	Auxeticity and stiffness of random networks: Lessons for the rational design of 3D printed mechanical metamaterials. Applied Physics Letters, 2019, 115, .	1.5	30
76	Novel microstructural features of selective laser melted lattice struts fabricated with single point exposure scanning. Additive Manufacturing, 2019, 29, 100785.	1.7	10
77	Fifty Years Is Not a Lot of Time!. Matter, 2019, 1, 1096-1098.	5.0	1
78	Fracture Behavior of Bio-Inspired Functionally Graded Softâ€“Hard Composites Made by Multi-Material 3D Printing: The Case of Colinear Cracks. Materials, 2019, 12, 2735.	1.3	27
79	Functional evaluation of a non-assembly 3D-printed hand prosthesis. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2019, 233, 1122-1131.	1.0	22
80	Submicron Patterns-on-a-Chip: Fabrication of a Microfluidic Device Incorporating 3D Printed Surface Ornaments. ACS Biomaterials Science and Engineering, 2019, 5, 6127-6136.	2.6	17
81	Ultra-programmable buckling-driven soft cellular mechanisms. Materials Horizons, 2019, 6, 1138-1147.	6.4	77
82	Nature Helps: Toward Bioinspired Bactericidal Nanopatterns. Advanced Materials Interfaces, 2019, 6, 1900640.	1.9	40
83	Metallic clay. Additive Manufacturing, 2019, 28, 528-534.	1.7	4
84	Influence of hydrothermal treatment on the surface characteristics and electrochemical behavior of Ti-6Al-4V bio-functionalized through plasma electrolytic oxidation. Surface and Coatings Technology, 2019, 374, 222-231.	2.2	32
85	Additively manufactured porous metallic biomaterials. Journal of Materials Chemistry B, 2019, 7, 4088-4117.	2.9	137
86	Biodegradation-affected fatigue behavior of additively manufactured porous magnesium. Additive Manufacturing, 2019, 28, 299-311.	1.7	34
87	Additive manufacturing of Tiâ€“6Alâ€“4V parts through laser metal deposition (LMD): Process, microstructure, and mechanical properties. Journal of Alloys and Compounds, 2019, 804, 163-191.	2.8	214
88	Corrosion fatigue behavior of additively manufactured biodegradable porous iron. Corrosion Science, 2019, 156, 106-116.	3.0	51
89	Typical Shape Differences in the Subtalar Joint Bones Between Subjects with Chronic Ankle Instability and Controls. Journal of Orthopaedic Research, 2019, 37, 1892-1902.	1.2	25
90	Semianalytical Geometry-Property Relationships for Some Generalized Classes of Pentamodelike Additively Manufactured Mechanical Metamaterials. Physical Review Applied, 2019, 11, .	1.5	28

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91	Towards osteogenic and bactericidal nanopatterns?. Nanotechnology, 2019, 30, 20LT01.	1.3	28
92	Bioengineered Skin Intended for Skin Disease Modeling. International Journal of Molecular Sciences, 2019, 20, 1407.	1.8	25
93	Hyperbolic origami-inspired folding of triply periodic minimal surface structures. Applied Materials Today, 2019, 15, 453-461.	2.3	27
94	A review of the fatigue behavior of 3D printed polymers. Additive Manufacturing, 2019, 28, 87-97.	1.7	63
95	Non-Auxetic Mechanical Metamaterials. Materials, 2019, 12, 635.	1.3	43
96	Crumpling of thin sheets as a basis for creating mechanical metamaterials. RSC Advances, 2019, 9, 5174-5188.	1.7	19
97	Nanomaterials for bone tissue regeneration: updates and future perspectives. Nanomedicine, 2019, 14, 2987-3006.	1.7	35
98	Reactive ion etching for fabrication of biofunctional titanium nanostructures. Scientific Reports, 2019, 9, 18815.	1.6	34
99	Mechanical performance of additively manufactured meta-biomaterials. Acta Biomaterialia, 2019, 85, 41-59.	4.1	230
100	Threeâ€dimensional analysis of shape variations and symmetry of the fibula, tibia, calcaneus and talus. Journal of Anatomy, 2019, 234, 132-144.	0.9	44
101	Compatibility in microstructural optimization for additive manufacturing. Additive Manufacturing, 2019, 26, 65-75.	1.7	72
102	From microstructural design to surface engineering: A tailored approach for improving fatigue life of additively manufactured meta-biomaterials. Acta Biomaterialia, 2019, 83, 153-166.	4.1	79
103	Topological design, permeability and mechanical behavior of additively manufactured functionally graded porous metallic biomaterials. Acta Biomaterialia, 2019, 84, 437-452.	4.1	189
104	Bactericidal effects of nanopatterns: A systematic review. Acta Biomaterialia, 2019, 83, 29-36.	4.1	164
105	Optimization of screw fixation in rat bone with extracorporeal shock waves. Journal of Orthopaedic Research, 2018, 36, 76-84.	1.2	9
106	Fatigue and quasiâ€static mechanical behavior of bioâ€degradable porous biomaterials based on magnesium alloys. Journal of Biomedical Materials Research - Part A, 2018, 106, 1798-1811.	2.1	26
107	Additive manufacturing of non-assembly mechanisms. Additive Manufacturing, 2018, 21, 150-158.	1.7	54
108	Nonâ€enzymatic crossâ€linking of collagen type II fibrils is tuned via osmolality switch. Journal of Orthopaedic Research, 2018, 36, 1929-1936.	1.2	3

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109	Shape-matching soft mechanical metamaterials. Scientific Reports, 2018, 8, 965.	1.6	95
110	Isolated and modulated effects of topology and material type on the mechanical properties of additively manufactured porous biomaterials. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 79, 254-263.	1.5	88
111	Early Signs of Bone and Cartilage Changes Induced by Treadmill Exercise in Rats. JBMR Plus, 2018, 2, 134-142.	1.3	4
112	Direct submicron patterning of titanium for bone implants. Microelectronic Engineering, 2018, 195, 13-20.	1.1	10
113	Action-at-a-distance metamaterials: Distributed local actuation through far-field global forces. APL Materials, 2018, 6, .	2.2	37
114	Rationally designed meta-implants: a combination of auxetic and conventional meta-biomaterials. Materials Horizons, 2018, 5, 28-35.	6.4	216
115	Programming the shape-shifting of flat soft matter. Materials Today, 2018, 21, 144-163.	8.3	188
116	Effects of non-enzymatic glycation on the micro- and nano-mechanics of articular cartilage. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 77, 551-556.	1.5	15
117	Effect of subtransus heat treatment on the microstructure and mechanical properties of additively manufactured Ti-6Al-4V alloy. Journal of Alloys and Compounds, 2018, 735, 1562-1575.	2.8	172
118	Additively manufactured biodegradable porous magnesium. Acta Biomaterialia, 2018, 67, 378-392.	4.1	273
119	Development and mechanical characterisation of self-compressed collagen gels. Materials Science and Engineering C, 2018, 84, 243-247.	3.8	13
120	Fatigue performance of additively manufactured meta-biomaterials: The effects of topology and material type. Acta Biomaterialia, 2018, 65, 292-304.	4.1	144
121	From flat sheets to curved geometries: Origami and kirigami approaches. Materials Today, 2018, 21, 241-264.	8.3	267
122	Multi-material 3D printed mechanical metamaterials: Rational design of elastic properties through spatial distribution of hard and soft phases. Applied Physics Letters, 2018, 113, .	1.5	89
123	Antibacterial and immunogenic behavior of silver coatings on additively manufactured porous titanium. Acta Biomaterialia, 2018, 81, 315-327.	4.1	130
124	Current Trends in Metallic Orthopedic Biomaterials: From Additive Manufacturing to Bio-Functionalization, Infection Prevention, and Beyond. International Journal of Molecular Sciences, 2018, 19, 2684.	1.8	24
125	Frontiers of Additively Manufactured Metallic Materials. Materials, 2018, 11, 1566.	1.3	26
126	Towards deployable meta-implants. Journal of Materials Chemistry B, 2018, 6, 3449-3455.	2.9	49

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127	Multi-scale imaging techniques to investigate solute transport across articular cartilage. Journal of Biomechanics, 2018, 78, 10-20.	0.9	23
128	Direct covalent attachment of silver nanoparticles on radical-rich plasma polymer films for antibacterial applications. Journal of Materials Chemistry B, 2018, 6, 5845-5853.	2.9	40
129	Three-Dimensional Registration of Freehand-Tracked Ultrasound to CT Images of the Talocrural Joint. Sensors, 2018, 18, 2375.	2.1	3
130	Additively manufactured biodegradable porous iron. Acta Biomaterialia, 2018, 77, 380-393.	4.1	185
131	Unfocused shockwaves for osteoinduction in bone substitutes in rat cortical bone defects. PLoS ONE, 2018, 13, e0200020.	1.1	6
132	Multiscale modeling of fatigue crack propagation in additively manufactured porous biomaterials. International Journal of Fatigue, 2018, 113, 416-427.	2.8	38
133	In-silico quest for bactericidal but non-cytotoxic nanopatterns. Nanotechnology, 2018, 29, 43LT02.	1.3	35
134	Length-scale dependency of biomimetic hard-soft composites. Scientific Reports, 2018, 8, 12052.	1.6	28
135	Ten guidelines for the design of non-assembly mechanisms: The case of 3D-printed prosthetic hands. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2018, 232, 962-971.	1.0	40
136	Bone tissue engineering via growth factor delivery: from scaffolds to complex matrices. International Journal of Energy Production and Management, 2018, 5, 197-211.	1.9	368
137	Multimaterial Control of Instability in Soft Mechanical Metamaterials. Physical Review Applied, 2018, 9, .	1.5	35
138	Microscopic full-field three-dimensional strain measurement during the mechanical testing of additively manufactured porous biomaterials. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 69, 327-341.	1.5	29
139	Auxetic mechanical metamaterials. RSC Advances, 2017, 7, 5111-5129.	1.7	471
140	Additively manufactured metallic porous biomaterials based on minimal surfaces: A unique combination of topological, mechanical, and mass transport properties. Acta Biomaterialia, 2017, 53, 572-584.	4.1	546
141	Selective laser melting porous metallic implants with immobilized silver nanoparticles kill and prevent biofilm formation by methicillin-resistant Staphylococcus aureus. Biomaterials, 2017, 140, 1-15.	5.7	170
142	Additively manufactured metallic pentamode meta-materials. Applied Physics Letters, 2017, 110, .	1.5	108
143	Analytical relationships for the mechanical properties of additively manufactured porous biomaterials based on octahedral unit cells. Applied Mathematical Modelling, 2017, 46, 408-422.	2.2	72
144	Mechanics of additively manufactured biomaterials. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 70, 1-6.	1.5	64

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145	Bone Remodeling is an Early Sign of Biomechanically Induced Pre-Osteoarthritis. Osteoarthritis and Cartilage, 2017, 25, S295-S296.	0.6	2
146	Effects of bone substitute architecture and surface properties on cell response, angiogenesis, and structure of new bone. Journal of Materials Chemistry B, 2017, 5, 6175-6192.	2.9	199
147	Programming 2D/3D shape-shifting with hobbyist 3D printers. Materials Horizons, 2017, 4, 1064-1069.	6.4	216
148	Data on the surface morphology of additively manufactured Ti-6Al-4V implants during processing by plasma electrolytic oxidation. Data in Brief, 2017, 13, 385-389.	0.5	7
149	Fatigue crack propagation in additively manufactured porous biomaterials. Materials Science and Engineering C, 2017, 76, 457-463.	3.8	38
150	Effects of plasma electrolytic oxidation process on the mechanical properties of additively manufactured porous biomaterials. Materials Science and Engineering C, 2017, 76, 406-416.	3.8	47
151	Additively Manufactured and Surface Biofunctionalized Porous Nitinol. ACS Applied Materials & Interfaces, 2017, 9, 1293-1304.	4.0	78
152	Solute transport at the interface of cartilage and subchondral bone plate: Effect of micro-architecture. Journal of Biomechanics, 2017, 52, 148-154.	0.9	29
153	Effects of applied stress ratio on the fatigue behavior of additively manufactured porous biomaterials under compressive loading. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 70, 7-16.	1.5	54
154	Crumpling-based soft metamaterials: the effects of sheet pore size and porosity. Scientific Reports, 2017, 7, 13028.	1.6	21
155	Rational design of soft mechanical metamaterials: Independent tailoring of elastic properties with randomness. Applied Physics Letters, 2017, 111, .	1.5	73
156	Origami lattices with free-form surface ornaments. Science Advances, 2017, 3, eaao1595.	4.7	53
157	An Experimental and Finite Element Protocol to Investigate the Transport of Neutral and Charged Solutes across Articular Cartilage. Journal of Visualized Experiments, 2017, , .	0.2	2
158	Simultaneous Delivery of Multiple Antibacterial Agents from Additively Manufactured Porous Biomaterials to Fully Eradicate Planktonic and Adherent Staphylococcus aureus. ACS Applied Materials & Interfaces, 2017, 9, 25691-25699.	4.0	82
159	How does tissue regeneration influence the mechanical behavior of additively manufactured porous biomaterials?. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 65, 831-841.	1.5	64
160	Additive Manufacturing of Biomaterials, Tissues, and Organs. Annals of Biomedical Engineering, 2017, 45, 1-11.	1.3	301
161	Effects of heat treatment on microstructure and mechanical behaviour of additive manufactured porous Ti6Al4V. IOP Conference Series: Materials Science and Engineering, 2017, 293, 012009.	0.3	12
162	Effects of laser processing parameters on the mechanical properties, topology, and microstructure of additively manufactured porous metallic biomaterials: A vector-based approach. Materials and Design, 2017, 134, 234-243.	3.3	44

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163	Design for Additive Bio-Manufacturing: From Patient-Specific Medical Devices to Rationally Designed Meta-Biomaterials. International Journal of Molecular Sciences, 2017, 18, 1607.	1.8	94
164	Biomaterials and Tissue Biomechanics: A Match Made in Heaven?. Materials, 2017, 10, 528.	1.3	16
165	Mechanical Properties of Additively Manufactured Thick Honeycombs. Materials, 2016, 9, 613.	1.3	73
166	Structural and mechanical characterisation of the peri-prosthetic tissue surrounding loosened hip prostheses. An explorative study. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 62, 456-467.	1.5	8
167	Micro-architecture affects the transport of solutes at the interface of cartilage and bone. Osteoarthritis and Cartilage, 2016, 24, S361.	0.6	0
168	Mechanical meta-materials. Materials Horizons, 2016, 3, 371-381.	6.4	306
169	Isolated effects of external bath osmolality, solute concentration, and electrical charge on solute transport across articular cartilage. Medical Engineering and Physics, 2016, 38, 1399-1407.	0.8	19
170	Guidelines for an optimized indentation protocol for measurement of cartilage stiffness: The effects of spatial variation and indentation parameters. Journal of Biomechanics, 2016, 49, 3602-3607.	0.9	35
171	Combined inverse-forward artificial neural networks for fast and accurate estimation of the diffusion coefficients of cartilage based on multi-physics models. Journal of Biomechanics, 2016, 49, 2799-2805.	0.9	5
172	Analytical relationships for prediction of the mechanical properties of additively manufactured porous biomaterials. Journal of Biomedical Materials Research - Part A, 2016, 104, 3164-3174.	2.1	108
173	Programming the shape-shifting of flat soft matter: from self-rolling/self-twisting materials to self-folding origami. Materials Horizons, 2016, 3, 536-547.	6.4	129
174	Mechanical properties of additively manufactured octagonal honeycombs. Materials Science and Engineering C, 2016, 69, 1307-1317.	3.8	51
175	Application of multiphysics models to efficient design of experiments of solute transport across articular cartilage. Computers in Biology and Medicine, 2016, 78, 91-96.	3.9	7
176	Nanopattern-induced osteogenic differentiation of stem cells â€“ A systematic review. Acta Biomaterialia, 2016, 46, 3-14.	4.1	127
177	Bone shape difference between control and osteochondral defect groups of the ankle joint. Osteoarthritis and Cartilage, 2016, 24, 2108-2115.	0.6	20
178	Neutral solute transport across osteochondral interface: A finite element approach. Journal of Biomechanics, 2016, 49, 3833-3839.	0.9	7
179	Antibacterial Behavior of Additively Manufactured Porous Titanium with Nanotubular Surfaces Releasing Silver Ions. ACS Applied Materials & Interfaces, 2016, 8, 17080-17089.	4.0	125
180	Computational prediction of the fatigue behavior of additively manufactured porous metallic biomaterials. International Journal of Fatigue, 2016, 84, 67-79.	2.8	105

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181	Mechanical behavior of additively manufactured porous biomaterials made from truncated cuboctahedron unit cells. International Journal of Mechanical Sciences, 2016, 106, 19-38.	3.6	77
182	Multiphasic modeling of charged solute transport across articular cartilage: Application of multi-zone finite-bath model. Journal of Biomechanics, 2016, 49, 1510-1517.	0.9	18
183	Micro- and nano-mechanics of osteoarthritic cartilage: The effects of tonicity and disease severity. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 59, 561-571.	1.5	10
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