Xiongbiao Chen

List of Publications by Year
in descending order

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159 papers	6,608 citations	47006 47 h-index	85541 71 g-index
159 all docs	159 docs citations	159 times ranked	7089 citing authors

#	Article	IF	Citations
1	Mechanical Properties of Natural Cartilage and Tissue-Engineered Constructs. Tissue Engineering - Part B: Reviews, 2011, 17, 213-227.	4.8	222
2	UV-Assisted 3D Bioprinting of Nanoreinforced Hybrid Cardiac Patch for Myocardial Tissue Engineering. Tissue Engineering - Part C: Methods, 2018, 24, 74-88.	2.1	179
3	A brief review of extrusionâ€based tissue scaffold bioâ€printing. Biotechnology Journal, 2017, 12, 1600671.	3.5	172
4	Strategic Design and Fabrication of Engineered Scaffolds for Articular Cartilage Repair. Journal of Functional Biomaterials, 2012, 3, 799-838.	4.4	163
5	Regeneration of peripheral nerves by nerve guidance conduits: Influence of design, biopolymers, cells, growth factors, and physical stimuli. Progress in Neurobiology, 2018, 171, 125-150.	5.7	144
6	Application of Extrusion-Based Hydrogel Bioprinting for Cartilage Tissue Engineering. International Journal of Molecular Sciences, 2017, 18, 1597.	4.1	133
7	3D biofabrication of vascular networks for tissue regeneration: A report on recent advances. Journal of Pharmaceutical Analysis, 2018, 8, 277-296.	5.3	128
8	Printability and Cell Viability in Bioprinting Alginate Dialdehyde-Gelatin Scaffolds. ACS Biomaterials Science and Engineering, 2019, 5, 2976-2987.	5.2	123
9	Strategic Design and Fabrication of Nerve Guidance Conduits for Peripheral Nerve Regeneration. Biotechnology Journal, 2018, 13, e1700635.	3.5	122
10	Development of the PVA/CS nanofibers containing silk protein sericin as a wound dressing: In vitro and in vivo assessment. International Journal of Biological Macromolecules, 2020, 149, 513-521.	7.5	122
11	3D bioprinting of scaffolds with living Schwann cells for potential nerve tissue engineering applications. Biofabrication, 2018, 10, 035014.	7.1	112
12	3D printing of porous alginate/gelatin hydrogel scaffolds and their mechanical property characterization. International Journal of Polymeric Materials and Polymeric Biomaterials, 2017, 66, 299-306.	3.4	110
13	Bioprinted fibrin-factor XIII-hyaluronate hydrogel scaffolds with encapsulated Schwann cells and their in vitro characterization for use in nerve regeneration. Bioprinting, 2017, 5, 1-9.	5.8	109
14	In vitro and in vivo evaluation of chitosan-alginate/gentamicin wound dressing nanofibrous with high antibacterial performance. Polymer Testing, 2020, 82, 106298.	4.8	107
15	Analyzing Biological Performance of 3D-Printed, Cell-Impregnated Hybrid Constructs for Cartilage Tissue Engineering. Tissue Engineering - Part C: Methods, 2016, 22, 173-188.	2.1	105
16	Printabilityâ€“A key issue in extrusion-based bioprinting. Journal of Pharmaceutical Analysis, 2021, 11, 564-579.	5.3	100
17	3D Printing of Porous Cell-Laden Hydrogel Constructs for Potential Applications in Cartilage Tissue Engineering. ACS Biomaterials Science and Engineering, 2016, 2, 1200-1210.	5.2	97
18	Influence of crosslinking on the mechanical behavior of 3D printed alginate scaffolds: Experimental and numerical approaches. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 80, 111-118.	3.1	91

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19	Controlled Drug Delivery Systems for Oral Cancer Treatmentâ€”Current Status and Future Perspectives. Pharmaceutics, 2019, 11, 302.	4.5	86
20	Effect of needle geometry on flow rate and cell damage in the dispensingâ€based biofabrication process. Biotechnology Progress, 2011, 27, 1777-1784.	2.6	84
21	3D printing PCL/nHA bone scaffolds: exploring the influence of material synthesis techniques. Biomaterials Research, 2021, 25, 3.	6.9	80
22	Thermal-error modeling for complex physical systems: the-state-of-arts review. International Journal of Advanced Manufacturing Technology, 2009, 42, 168-179.	3.0	79
23	Co-incorporation of graphene oxide/silver nanoparticle into poly-L-lactic acid fibrous: A route toward the development of cytocompatible and antibacterial coating layer on magnesium implants. Materials Science and Engineering C, 2020, 111, 110812.	7.3	78
24	Indirect 3D bioprinting and characterization of alginate scaffolds for potential nerve tissue engineering applications. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 93, 183-193.	3.1	76
25	Bioengineered Scaffolds for Spinal Cord Repair. Tissue Engineering - Part B: Reviews, 2011, 17, 177-194.	4.8	75
26	Printability in extrusion bioprinting. Biofabrication, 2021, 13, 033001.	7.1	74
27	Antibacterial activity and corrosion resistance of Ta2O5 thin film and electrospun PCL/MgO-Ag nanofiber coatings on biodegradable Mg alloy implants. Ceramics International, 2019, 45, 11883-11892.	4.8	73
28	Extrusion-based printing of chitosan scaffolds and their in vitro characterization for cartilage tissue engineering. International Journal of Biological Macromolecules, 2020, 164, 3179-3192.	7.5	73
29	Printability of 3D Printed Hydrogel Scaffolds: Influence of Hydrogel Composition and Printing Parameters. Applied Sciences (Switzerland), 2020, 10, 292.	2.5	73
30	Influence of ionic crosslinkers (Ca²⁺/Ba²⁺/Zn²⁺) on the mechanical and biological properties of 3D Bioplotted Hydrogel Scaffolds. Journal of Biomaterials Science, Polymer Edition, 2018, 29, 1126-1154.	3.5	72
31	Coating biodegradable magnesium alloys with electrospun poly-L-lactic acid-Ã¥kermanite-doxycycline nanofibers for enhanced biocompatibility, antibacterial activity, and corrosion resistance. Surface and Coatings Technology, 2019, 377, 124898.	4.8	71
32	Characterization of Cell Damage and Proliferative Ability during and after Bioprinting. ACS Biomaterials Science and Engineering, 2018, 4, 3906-3918.	5.2	70
33	Homogeneous hydroxyapatite/alginate composite hydrogel promotes calcified cartilage matrix deposition with potential for three-dimensional bioprinting. Biofabrication, 2019, 11, 015015.	7.1	70
34	Influence of mechanical properties of alginate-based substrates on the performance of Schwann cells in culture. Journal of Biomaterials Science, Polymer Edition, 2016, 27, 898-915.	3.5	69
35	Use of the polycation polyethyleneimine to improve the physical properties of alginateâ€“hyaluronic acid hydrogel during fabrication of tissue repair scaffolds. Journal of Biomaterials Science, Polymer Edition, 2015, 26, 433-445.	3.5	64
36	PLGA/alginate composite microspheres for hydrophilic protein delivery. Materials Science and Engineering C, 2015, 56, 251-259.	7.3	64

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37	Fabrication of chitosan/alginate/hydroxyapatite hybrid scaffolds using 3D printing and impregnating techniques for potential cartilage regeneration. International Journal of Biological Macromolecules, 2022, 204, 62-75.	7.5	62
38	Modeling Process-Induced Cell Damage in the Biodispensing Process. Tissue Engineering - Part C: Methods, 2010, 16, 533-542.	2.1	61
39	Development and characterization of a novel piezoelectric-driven stick-slip actuator with anisotropic-friction surfaces. International Journal of Advanced Manufacturing Technology, 2012, 61, 1029-1034.	3.0	59
40	Molecular dynamics simulation and experimental study of the bonding properties of polymer binders in 3D powder printed hydroxyapatite bioceramic bone scaffolds. Ceramics International, 2017, 43, 13702-13709.	4.8	59
41	Curcuminâ€loaded electrospun polycaprolactone/montmorillonite nanocomposite: wound dressing application with antiâ€bacterial and low cell toxicity properties. Journal of Biomaterials Science, Polymer Edition, 2020, 31, 169-187.	3.5	57
42	A Survey of Modeling and Control of Piezoelectric Actuators. Modern Mechanical Engineering, 2013, 03, 1-20.	0.5	56
43	Development of PMMA-Mon-CNT bone cement with superior mechanical properties and favorable biological properties for use in bone-defect treatment. Materials Letters, 2019, 240, 9-12.	2.6	56
44	Innovation and possible long-term impact driven by COVID-19: Manufacturing, personal protective equipment and digital technologies. Technology in Society, 2021, 65, 101541.	9.4	55
45	Printability and Cell Viability in Extrusion-Based Bioprinting from Experimental, Computational, and Machine Learning Views. Journal of Functional Biomaterials, 2022, 13, 40.	4.4	55
46	Bioprinting Schwann cell-laden scaffolds from low-viscosity hydrogel compositions. Journal of Materials Chemistry B, 2019, 7, 4538-4551.	5.8	54
47	Dispensing-based bioprinting of mechanically-functional hybrid scaffolds with vessel-like channels for tissue engineering applications â€“ A brief review. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 78, 298-314.	3.1	53
48	Experimental approaches to vascularisation within tissue engineering constructs. Journal of Biomaterials Science, Polymer Edition, 2015, 26, 683-734.	3.5	52
49	3D Bioprinted Scaffolds for Bone Tissue Engineering: State-Of-The-Art and Emerging Technologies. Frontiers in Bioengineering and Biotechnology, 2022, 10, 824156.	4.1	51
50	Strategic Design and Recent Fabrication Techniques for Bioengineered Tissue Scaffolds to Improve Peripheral Nerve Regeneration. Tissue Engineering - Part B: Reviews, 2012, 18, 454-467.	4.8	49
51	Modeling of Positive-Displacement Fluid Dispensing Processes. IEEE Transactions on Electronics Packaging Manufacturing, 2004, 27, 157-163.	1.4	48
52	Bio-fabrication of peptide-modified alginate scaffolds: Printability, mechanical stability and neurite outgrowth assessments. Bioprinting, 2019, 14, e00045.	5.8	48
53	Process-induced cell damage: pneumatic versus screw-driven bioprinting. Biofabrication, 2020, 12, 025011.	7.1	47
54	Effects of Fluid Properties on Dispensing Processes for Electronics Packaging. IEEE Transactions on Electronics Packaging Manufacturing, 2006, 29, 75-82.	1.4	46

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55	Novel crosslinked alginate/hyaluronic acid hydrogels for nerve tissue engineering. Frontiers of Materials Science, 2013, 7, 269-284.	2.2	45
56	Modeling and control of fluid dispensing processes: a state-of-the-art review. International Journal of Advanced Manufacturing Technology, 2009, 43, 276-286.	3.0	44
57	The Effect of Chondroitin Sulphate and Hyaluronic Acid on Chondrocytes Cultured within a Fibrin-Alginate Hydrogel. Journal of Functional Biomaterials, 2014, 5, 197-210.	4.4	44
58	Antibacterial activity and in vivo wound healing evaluation of polycaprolactone-gelatin methacryloyl-cephalexin electrospun nanofibrous. Materials Letters, 2019, 256, 126618.	2.6	44
59	Electrospinning of Scaffolds from the Polycaprolactone/Polyurethane Composite with Graphene Oxide for Skin Tissue Engineering. Applied Biochemistry and Biotechnology, 2020, 191, 567-578.	2.9	44
60	Modeling of time-pressure fluid dispensing processes. IEEE Transactions on Electronics Packaging Manufacturing, 2000, 23, 300-305.	1.4	43
61	Improved antibacterial properties of an Mgâ€•Znâ€•Ca alloy coated with chitosan nanofibers incorporating silver sulfadiazine multiwall carbon nanotubes for bone implants. Polymers for Advanced Technologies, 2019, 30, 1333-1339.	3.2	42
62	A new multifunctional monticellite-ciprofloxacin scaffold: Preparation, bioactivity, biocompatibility, and antibacterial properties. Materials Chemistry and Physics, 2019, 222, 118-131.	4.0	42
63	Influence of Flow Behavior of Alginateâ€“Cell Suspensions on Cell Viability and Proliferation. Tissue Engineering - Part C: Methods, 2016, 22, 652-662.	2.1	41
64	Off-line control of time-pressure dispensing processes for electronics packaging. IEEE Transactions on Electronics Packaging Manufacturing, 2003, 26, 286-293.	1.4	40
65	Sustained co-delivery of BIO and IGF-1 by a novel hybrid hydrogel system to stimulate endogenous cardiac repair in myocardial infarcted rat hearts. International Journal of Nanomedicine, 2015, 10, 4691.	6.7	40
66	An alginate-based platform for cancer stem cell research. Acta Biomaterialia, 2016, 37, 83-92.	8.3	39
67	Bioprinting of Vascularized Tissue Scaffolds: Influence of Biopolymer, Cells, Growth Factors, and Gene Delivery. Journal of Healthcare Engineering, 2019, 2019, 1-20.	1.9	38
68	Effect of Nanoparticle Incorporation and Surface Coating on Mechanical Properties of Bone Scaffolds: A Brief Review. Journal of Functional Biomaterials, 2016, 7, 18.	4.4	37
69	Directing neural stem cell fate with biomaterial parameters for injured brain regeneration. Progress in Natural Science: Materials International, 2013, 23, 103-112.	4.4	36
70	Bioprinting and in vitro characterization of alginate dialdehydeâ€“gelatin hydrogel bio-ink. Bio-Design and Manufacturing, 2020, 3, 48-59.	7.7	35
71	Low-dose phase-based X-ray imaging techniques for in situ soft tissue engineering assessments. Biomaterials, 2016, 82, 151-167.	11.4	34
72	Bioprinting Pattern-Dependent Electrical/Mechanical Behavior of Cardiac Alginate Implants: Characterization and <i>Ex Vivo</i> Phase-Contrast Microtomography Assessment. Tissue Engineering - Part C: Methods, 2017, 23, 548-564.	2.1	34

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73	Electrospinning of polyurethane/graphene oxide for skin wound dressing and its in vitro characterization. Journal of Biomaterials Applications, 2020, 35, 135-145.	2.4	34
74	Regulation of sequential release of growth factors using bilayer polymeric nanoparticles for cardiac tissue engineering. Nanomedicine, 2016, 11, 3237-3259.	3.3	33
75	Traditional Invasive and Synchrotron-Based Noninvasive Assessments of Three-Dimensional-Printed Hybrid Cartilage Constructs <i>In Situ</i>. Tissue Engineering - Part C: Methods, 2017, 23, 156-168.	2.1	33
76	Self-cross-linkable hydrogels composed of partially oxidized alginate and gelatin for myocardial infarction repair. Journal of Bioactive and Compatible Polymers, 2013, 28, 126-140.	2.1	32
77	Modelling and simulation of the chondrocyte cell growth, glucose consumption and lactate production within a porous tissue scaffold inside a perfusion bioreactor. Biotechnology Reports (Amsterdam, Netherlands), 2015, 5, 55-62.	4.4	32
78	X-Ray Diffraction Enhanced Imaging as a Novel Method to Visualize Low-Density Scaffolds in Soft Tissue Engineering. Tissue Engineering - Part C: Methods, 2011, 17, 1071-1080.	2.1	29
79	MODELING MECHANICAL CELL DAMAGE IN THE BIOPRINTING PROCESS EMPLOYING A CONICAL NEEDLE. Journal of Mechanics in Medicine and Biology, 2015, 15, 1550073.	0.7	29
80	Synthesis and in-vitro characterization of biodegradable porous magnesium-based scaffolds containing silver for bone tissue engineering. Transactions of Nonferrous Metals Society of China, 2019, 29, 984-996.	4.2	27
81	Modeling and Control of Dispensing Processes for Surface Mount Technology. IEEE/ASME Transactions on Mechatronics, 2005, 10, 326-334.	5.8	26
82	Rotary culture promotes the proliferation of MCF-7 cells encapsulated in three-dimensional collagenâ€"alginate hydrogels via activation of the ERK1/2-MAPK pathway. Biomedical Materials (Bristol), 2012, 7, 015003.	3.3	25
83	Fabrication and Osteogenesis of a Porous Nanohydroxyapatite/Polyamide Scaffold with an Anisotropic Architecture. ACS Biomaterials Science and Engineering, 2015, 1, 825-833.	5.2	25
84	3â€Dimensional Printing of Hydrogelâ€Based Nanocomposites: A Comprehensive Review on the Technology Description, Properties, and Applications. Advanced Engineering Materials, 2021, 23, 2100477.	3.5	25
85	A New Approach to Modeling System Dynamicsâ€"In the Case of a Piezoelectric Actuator With a Host System. IEEE/ASME Transactions on Mechatronics, 2010, 15, 371-380.	5.8	24
86	Modeling of Cell Cultures in Perfusion Bioreactors. IEEE Transactions on Biomedical Engineering, 2012, 59, 2568-2575.	4.2	24
87	Modeling of the Mechanical Behavior of 3D Bioplotted Scaffolds Considering the Penetration in Interlocked Strands. Applied Sciences (Switzerland), 2018, 8, 1422.	2.5	24
88	A Review on Antibacterial Biomaterials in Biomedical Applications: From Materials Perspective to Bioinks Design. Polymers, 2022, 14, 2238.	4.5	24
89	End-point sensing and state observation of a flexible-link robot. IEEE/ASME Transactions on Mechatronics, 2001, 6, 351-356.	5.8	23
90	Modeling the flow and mass transport in a mechanically stimulated parametric porous scaffold under fluid-structure interaction approach. International Communications in Heat and Mass Transfer, 2018, 96, 53-60.	5.6	23

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91	Investigating the Structure of the Surface Film on a Corrosion Resistant Mg-Li(-Al-Y-Zr) Alloy. Corrosion, 2019, 75, 80-89.	1.1	23
92	Review of extrusion-based multi-material bioprinting processes. Bioprinting, 2022, 25, e00189.	5.8	23
93	Rate-programming of nano-particulate delivery systems for smart bioactive scaffolds in tissue engineering. Nanotechnology, 2015, 26, 012001.	2.6	22
94	Development of Highly pH-Sensitive Hybrid Membranes by Simultaneous Electrospinning of Amphiphilic Nanofibers Reinforced with Graphene Oxide. Journal of Functional Biomaterials, 2019, 10, 23.	4.4	22
95	Evaluation of PBS Treatment and PEI Coating Effects on Surface Morphology and Cellular Response of 3D-Printed Alginate Scaffolds. Journal of Functional Biomaterials, 2017, 8, 48.	4.4	21
96	Evaluating the Effects of Nanosilica on Mechanical and Tribological Properties of Polyvinyl Alcohol/Polyacrylamide Polymer Composites for Artificial Cartilage from an Atomic Level. Polymers, 2019, 11, 76.	4.5	21
97	Cardiomyocyte Induction and Regeneration for Myocardial Infarction Treatment: Cell Sources and Administration Strategies. Advanced Healthcare Materials, 2020, 9, e2001175.	7.6	21
98	Modeling of the Flow within Scaffolds in Perfusion Bioreactors. American Journal of Biomedical Engineering, 2012, 1, 72-77.	0.9	21
99	Investigating the properties and interaction mechanism of nano-silica in polyvinyl alcohol/polyacrylamide blends at an atomic level. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 75, 529-537.	3.1	20
100	Noninvasive Three-Dimensional <i>In Situ</i> and <i>In Vivo</i> Characterization of Bioprinted Hydrogel Scaffolds Using the X-ray Propagation-Based Imaging Technique. ACS Applied Materials & Interfaces, 2021, 13, 25611-25623.	8.0	20
101	A mathematical model and computational framework for threeâ€dimensional chondrocyte cell growth in a porous tissue scaffold placed inside a biâ€directional flow perfusion bioreactor. Biotechnology and Bioengineering, 2015, 112, 2601-2610.	3.3	19
102	Aggregation Behavior of Nano-Silica in Polyvinyl Alcohol/Polyacrylamide Hydrogels Based on Dissipative Particle Dynamics. Polymers, 2017, 9, 611.	4.5	19
103	Computed Tomography Diffraction-Enhanced Imaging for<i>In Situ</i>Visualization of Tissue Scaffolds Implanted in Cartilage. Tissue Engineering - Part C: Methods, 2014, 20, 140-148.	2.1	18
104	Optimization of nanoparticles for cardiovascular tissue engineering. Nanotechnology, 2015, 26, 235301.	2.6	18
105	Using synchrotron radiation inline phase-contrast imaging computed tomography to visualize three-dimensional printed hybrid constructs for cartilage tissue engineering. Journal of Synchrotron Radiation, 2016, 23, 802-812.	2.4	18
106	Bioengineered tumor microenvironments with naked mole rats high-molecular-weight hyaluronan induces apoptosis in breast cancer cells. Oncogene, 2019, 38, 4297-4309.	5.9	18
107	Prediction of cell growth rate over scaffold strands inside a perfusion bioreactor. Biomechanics and Modeling in Mechanobiology, 2015, 14, 333-344.	2.8	17
108	Bioprinting for combating infectious diseases. Bioprinting, 2020, 20, e00104.	5.8	16

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109	Bioprinting and In Vitro Characterization of an Eggwhite-Based Cell-Laden Patch for Endothelialized Tissue Engineering Applications. Journal of Functional Biomaterials, 2021, 12, 45.	4.4	16
110	Emerging biotechnologies for evaluating disruption of stress, sleep, and circadian rhythm mechanism using aptamer-based detection of salivary biomarkers. Biotechnology Advances, 2022, 59, 107961.	11.7	16
111	Novel models for one-sided hysteresis of piezoelectric actuators. Mechatronics, 2012, 22, 757-765.	3.3	15
112	Hydrogels bearing bioengineered mimetic embryonic microenvironments for tumor reversion. Journal of Materials Chemistry B, 2016, 4, 6183-6191.	5.8	15
113	Synthesis of Injectable Alginate Hydrogels with Muscle-Derived Stem Cells for Potential Myocardial Infarction Repair. Applied Sciences (Switzerland), 2017, 7, 252.	2.5	15
114	Effect of Process Parameters on the Initial Burst Release of Protein-Loaded Alginate Nanospheres. Journal of Functional Biomaterials, 2019, 10, 42.	4.4	15
115	Modeling of the Fluid Volume Transferred in Contact Dispensing Processes. IEEE Transactions on Electronics Packaging Manufacturing, 2009, 32, 133-137.	1.4	14
116	Antibacterial activities of zeolite/silver-graphene oxide nanocomposite in bone implants. Materials Technology, 2020, , 1-10.	3.0	14
117	Electrophoretic deposition of bioglass/graphene oxide composite on Ti-alloy implants for improved antibacterial and cytocompatible properties. Materials Technology, 2020, 35, 69-74.	3.0	13
118	Self-Crosslinkable Oxidized Alginate-Carboxymethyl Chitosan Hydrogels as an Injectable Cell Carrier for In Vitro Dental Enamel Regeneration. Journal of Functional Biomaterials, 2022, 13, 71.	4.4	13
119	Engineering Angiogenesis for Myocardial Infarction Repair: Recent Developments, Challenges, and Future Directions. Cardiovascular Engineering and Technology, 2014, 5, 281-307.	1.6	12
120	Fabrication and Optimal Design of Biodegradable Polymeric Stents for Aneurysms Treatments. Journal of Functional Biomaterials, 2017, 8, 8.	4.4	12
121	Clinoenstatite/Tantalum Coating for Enhancement of Biocompatibility and Corrosion Protection of Mg Alloy. Journal of Functional Biomaterials, 2020, 11, 26.	4.4	12
122	Effect of unit configurations and parameters on the properties of Tiâ€“6Alâ€“4V unit-stacked scaffolds: A trade-off between mechanical and permeable performance. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 116, 104332.	3.1	12
123	Biocompatibility and bioactivity of hardystonite-based nanocomposite scaffold for tissue engineering applications. Biomedical Physics and Engineering Express, 2020, 6, 035011.	1.2	12
124	Effect of Surface Curvature on the Mechanical and Mass-Transport Properties of Additively Manufactured Tissue Scaffolds with Minimal Surfaces. ACS Biomaterials Science and Engineering, 2022, 8, 1623-1643.	5.2	12
125	Current progress, challenges, and future prospects of testis organoidsâ€. Biology of Reproduction, 2021, 104, 942-961.	2.7	11
126	Temperature Effect on the Shearâ€Induced Cell Damage in Biofabrication. Artificial Organs, 2011, 35, 741-746.	1.9	10

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127	Self-assembled monolayers with different chemical group substrates for the study of MCF-7 breast cancer cell line behavior. Biomedical Materials (Bristol), 2013, 8, 035008.	3.3	10
128	CFD-Based Comparison Study of a New Flow Diverting Stent and Commercially-Available Ones for the Treatment of Cerebral Aneurysms. Applied Sciences (Switzerland), 2019, 9, 1341.	2.5	10
129	Characterization of Tissue Scaffolds Using Synchrotron Radiation Microcomputed Tomography Imaging. Tissue Engineering - Part C: Methods, 2021, 27, 573-588.	2.1	10
130	Cartilage Tissue Engineering Approaches Need to Assess Fibrocartilage When Hydrogel Constructs Are Mechanically Loaded. Frontiers in Bioengineering and Biotechnology, 2021, 9, 787538.	4.1	10
131	Visualisation and analysis of large-scale vortex structures in three-dimensional turbulent lid-driven cavity flow. Journal of Turbulence, 2015, 16, 901-924.	1.4	9
132	Fluid flow and mass transfer over circular strands using the lattice Boltzmann method. Heat and Mass Transfer, 2015, 51, 1493-1504.	2.1	8
133	Potential of propagation-based synchrotron X-ray phase-contrast computed tomography for cardiac tissue engineering. Journal of Synchrotron Radiation, 2017, 24, 842-853.	2.4	8
134	A dual-transduction-integrated biosensing system to examine the 3D cell-culture for bone regeneration. Biosensors and Bioelectronics, 2019, 141, 111481.	10.1	8
135	Micromechanisms of Cortical Bone Failure Under Different Loading Conditions. Journal of Biomechanical Engineering, 2020, 142, .	1.3	8
136	Remodelling 3D printed GelMA-HA corneal scaffolds by cornea stromal cells. Colloids and Interface Science Communications, 2022, 49, 100632.	4.1	8
137	Fabrication of Wound Dressing Cotton Nano-Composite Coated with Tragacanth/Polyvinyl Alcohol: Characterization and In Vitro Studies. ECS Journal of Solid State Science and Technology, 2021, 10, 013002.	1.8	7
138	Bioprinted constructs for respiratory tissue engineering. Bioprinting, 2021, 24, e00177.	5.8	7
139	State Space System Identification of 3-Degree-of-Freedom (DOF) Piezo-Actuator-Driven Stages with Unknown Configuration. Actuators, 2013, 2, 1-18.	2.3	6
140	Virtual Reality Visualization of CFD Simulated Blood Flow in Cerebral Aneurysms Treated with Flow Diverter Stents. Applied Sciences (Switzerland), 2021, 11, 8082.	2.5	6
141	Novel trends, challenges and new perspectives for enamel repair and regeneration to treat dental defects. Biomaterials Science, 2022, , .	5.4	6
142	Computational modelling of the scaffold-free chondrocyte regeneration: a two-way coupling between the cell growth and local fluid flow and nutrient concentration. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1217-1225.	2.8	5
143	Computational nanomedicine for mechanistic elucidation of bilayer nanoparticle-mediated release for tissue engineering. Nanomedicine, 2017, 12, 423-442.	3.3	5
144	H<inf>2</inf>-optimal digital control of piezoelectric actuators. , 2010, , .		3

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145	Two modified discrete PID-based sliding mode controllers for piezoelectric actuators. International Journal of Control, 2014, 87, 9-20.	1.9	3
146	Tool wear monitoring and replacement for tubesheet drilling. International Journal of Advanced Manufacturing Technology, 2016, 86, 2011-2020.	3.0	3
147	The Hemodynamics of Aneurysms Treated with Flow-Diverting Stents Considering both Stent and Aneurysm/Artery Geometries. Applied Sciences (Switzerland), 2020, 10, 5239.	2.5	3
148	COVID-19 basics and vaccine development with a Canadian perspective. Canadian Journal of Microbiology, 2021, 67, 112-118.	1.7	3
149	Stentrievers : An engineering review. Interventional Neuroradiology, 2023, 29, 125-133.	1.1	3
150	Microencapsulation of Lefty-secreting engineered cells for pulmonary fibrosis therapy in mice. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2017, 312, L741-L747.	2.9	2
151	Advancements in Canadian Biomaterials Research in Neurotraumatic Diagnosis and Therapies. Processes, 2019, 7, 336.	2.8	2
152	A numerical study on tumor-on-chip performance and its optimization for nanodrug-based combination therapy. Biomechanics and Modeling in Mechanobiology, 2021, 20, 983-1002.	2.8	2
153	Collecting and deactivating TGF-Î²1 hydrogel for anti-scarring therapy in post-glaucoma filtration surgery. Materials Today Bio, 2022, 14, 100260.	5.5	2
154	Data of low-dose phase-based X-ray imaging for in situ soft tissue engineering assessments. Data in Brief, 2016, 6, 644-651.	1.0	1
155	Spinal Cord Repair by Means of Tissue Engineered Scaffolds. , 2013, , 485-547.		1
156	Discretization and perturbations in the simulation of localized turbulence in a pipe with a sudden expansion. Journal of Fluid Mechanics, 2022, 935, .	3.4	1
157	Modeling of the scaffold fabrication process for tissue engineering applications. , 0, , .		0
158	Recent Patents in Fluid Dispensing Processes for Electronics Packaging. Recent Patents on Mechanical Engineering, 2010, 2, 19-25.	0.3	0
159	Alginate-Based Hydrogels Encapsulated TWS119 for Inducing Neuronal Differentiation of Neural Stem Cells. Journal of Biomaterials and Tissue Engineering, 2014, 4, 1087-1092.	0.1	0